

Roger Access Control System 5

Application note no. 013

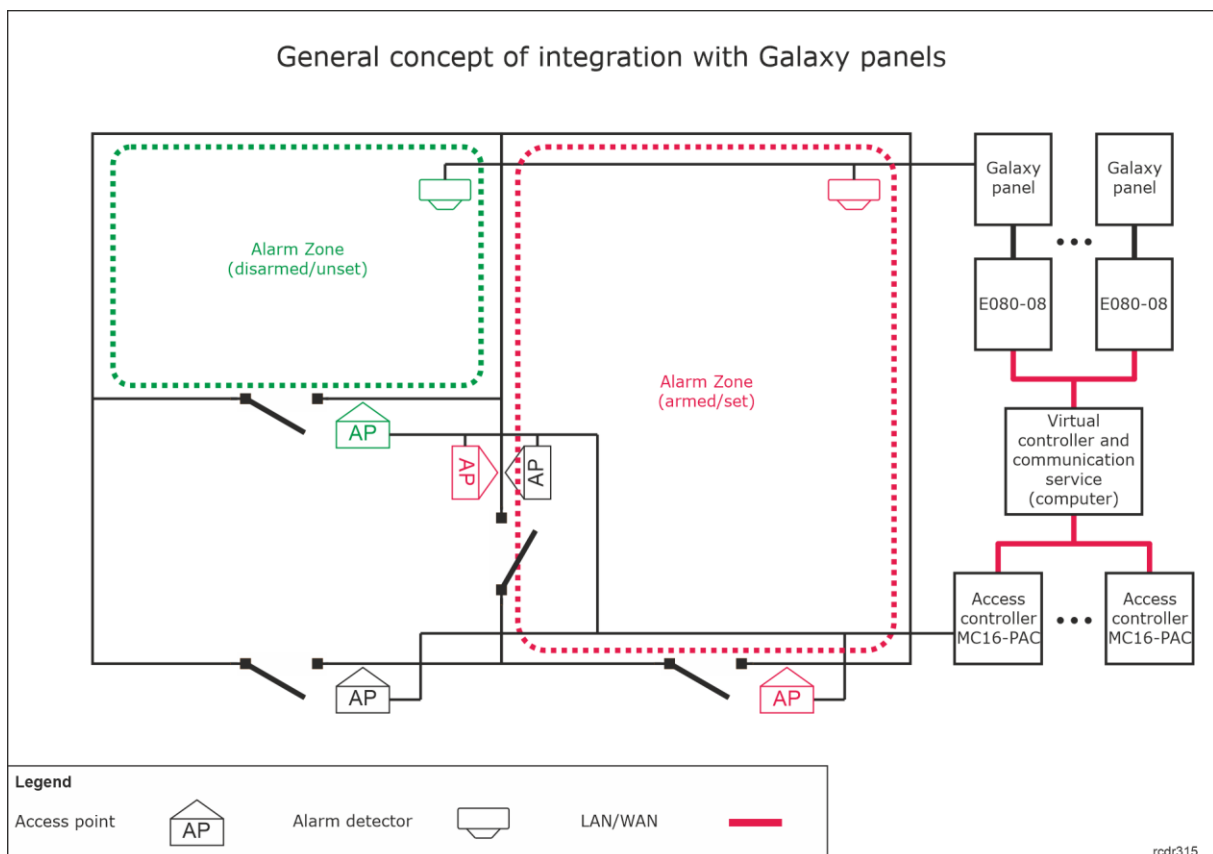
Document version: Rev. B

Galaxy (Honeywell) integration

Note: This document refers to RACS 5 v1.6.6 or higher

Introduction

RACS 5 system enables not only universal hardware integration with intruder alarm systems which is described in AN027 application note but also dedicated software integration with Galaxy Dimension series alarm control panels from Honeywell company. In such scenario the communication of access control system with alarm system is ensured by virtual controller (Windows service) from RogerSVC software package. Alarm system can include multiple alarm control panels, each equipped with E080-08 module. The integration is offered within licensed VISO EX software.



Note: In Galaxy alarm system, Alarm zones are called Groups while inputs for connection of detectors are called Zones. In this note and in VISO software, Galaxy Groups and Zones are called respectively Alarm Zones and input lines.

The concept of integration is based on logical connection of RACS 5 system Alarm Zones which include Access Points (readers) with Galaxy system Alarm Zones which include detectors. In practical application it means that the Armed mode of reader(s) and associated detector(s) is the same. Therefore the integration:

- Makes the management of both systems more convenient as Alarm Zones in both systems can be controlled from devices of one of the systems e.g. RACS 5 readers
- Allows to warn users about armed detectors in particular zone of alarm system as it can be presented on readers' LED indicators.
- Enables to avoid unnecessary alarms as the entry to the zone with armed detectors can be denied at access control readers because in such situation they would also be armed while getting into armed zone would require readers disarming which automatically results in detectors disarming.

Additionally the integration enables monitoring and remote control of Galaxy alarm system in RACS 5 management software by means of available monitors, maps and remote commands.

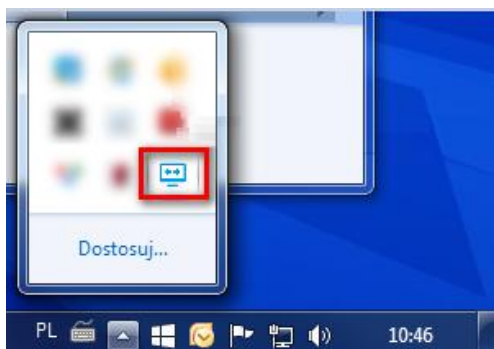
Preliminary configuration of RACS 5

In order to conduct preliminary configuration of RACS 5:

- Install VISO software and create local database according to AN006 application note or create recommended centralized database according to AN017 application note.
- Install RogerSVC software and select not only communication service but also license service and virtual controller service. If services are supposed to be operated on individual servers then install RogerSVC on each computer selecting required services. In RACS 5 system only single communication service can be operated.

Note: If license service and virtual controller service are supposed to be operated on individual servers then during installation of virtual controller the license service must be deselected. Only in such case it will be possible to indicate external license service when virtual controller service will be configured.

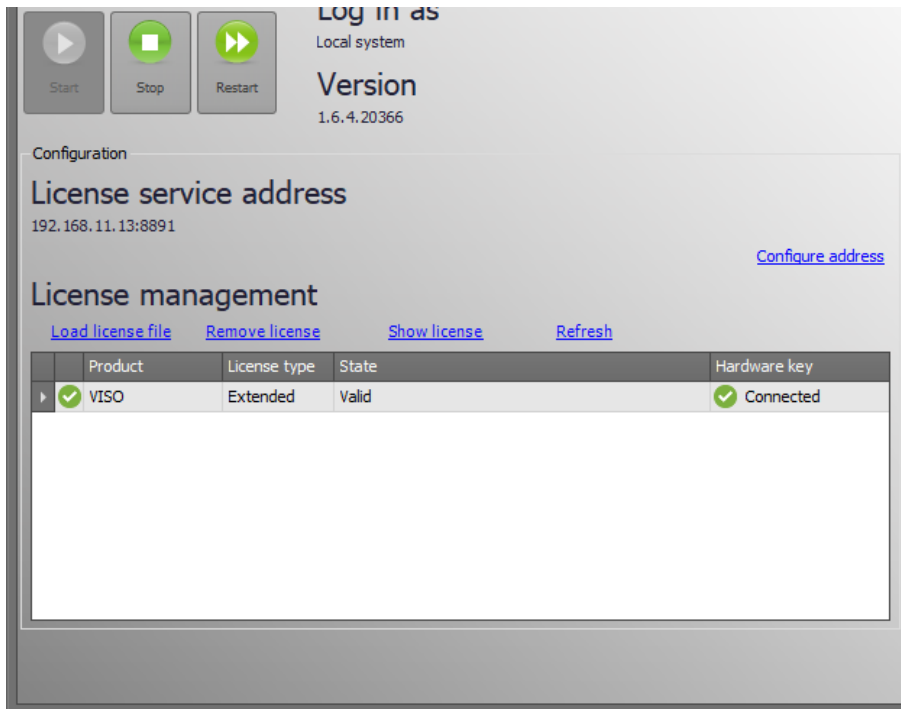
- Start RACS Services Manager selecting *Start->ROGER->RogerSVC* in Windows menu.
- Click the icon in Windows tray.



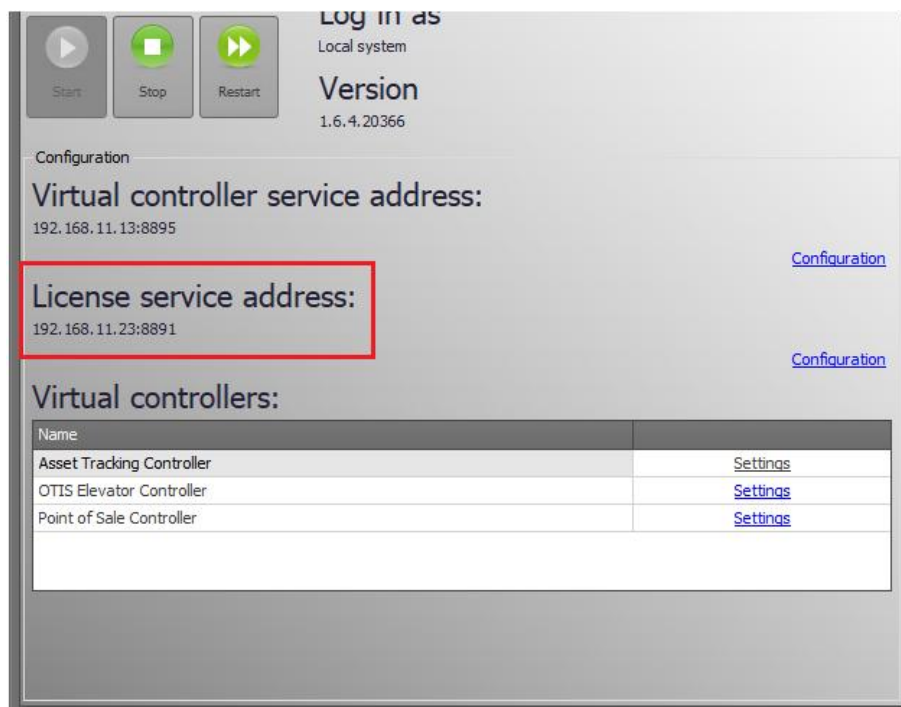
- In the manager window select *Database connection* tile and then *Configure connection* to indicate previously created RACS 5 database. Return to the main window.



- In the manager window select *Communication service* tile and then start the service. Return to the main window.
- Connect RUD-6-LKY hardware key to USB port of server with license service installed.
- In the manager window select *License service* tile, click *Configure address*, enter IP address of the computer with license service installed (e.g. 192.168.11.13) and define port (8891 by default).
- Select *Load license file* and indicate purchased license file for RUD-6-LKY hardware key.
- Select *Start* and return to the main window. The service will be started and operated in the background whenever the computer is switched on even if the manager is closed.



- In the manager window select *Virtual controller service* tile, click *Configuration*, enter IP address of the computer with virtual controller service installed (e.g. 192.168.11.13) and define port (8895 by default).
- If contrary to previously presented configuration steps, the license service is installed on a server with exemplary 192.168.11.23 address while virtual controller service is installed on server with exemplary 192.168.11.13 address then it is possible to indicate external license service for virtual controller service as below.



- Select *Start* and return to the main window. The service will be started and operated in the background whenever the computer is switched on even if the manager is closed.

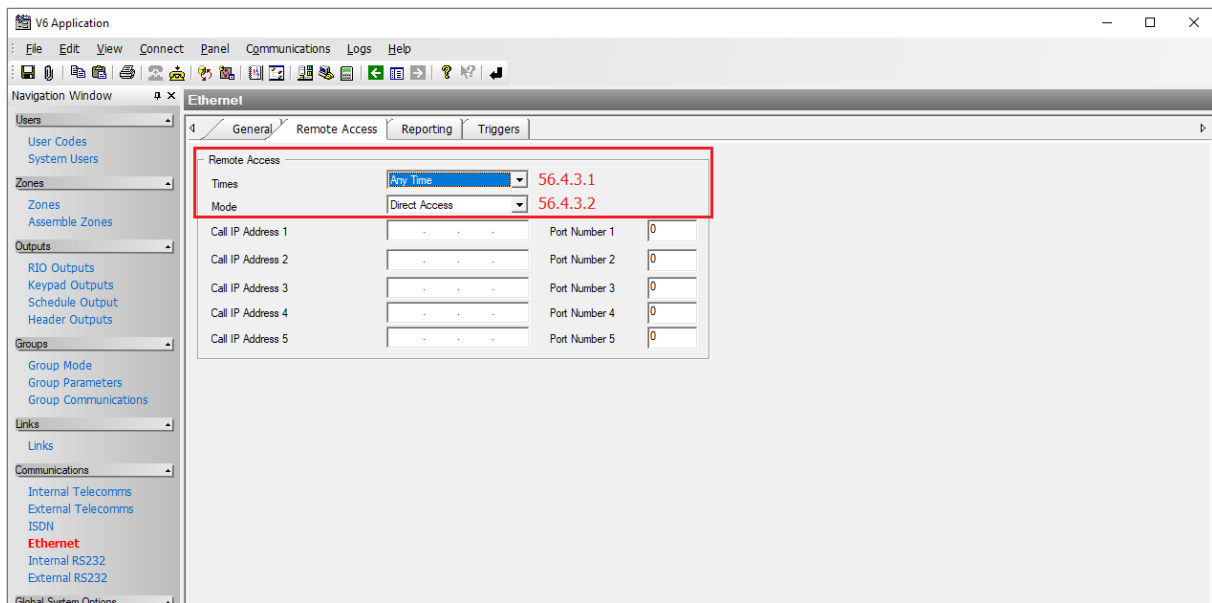
- Start VISO software, in the top menu select *System*, then *Select Licensing Server* and indicate previously defined license service from RogerSVC software in order to start the program in VISO EX version.

Configuration of alarm system

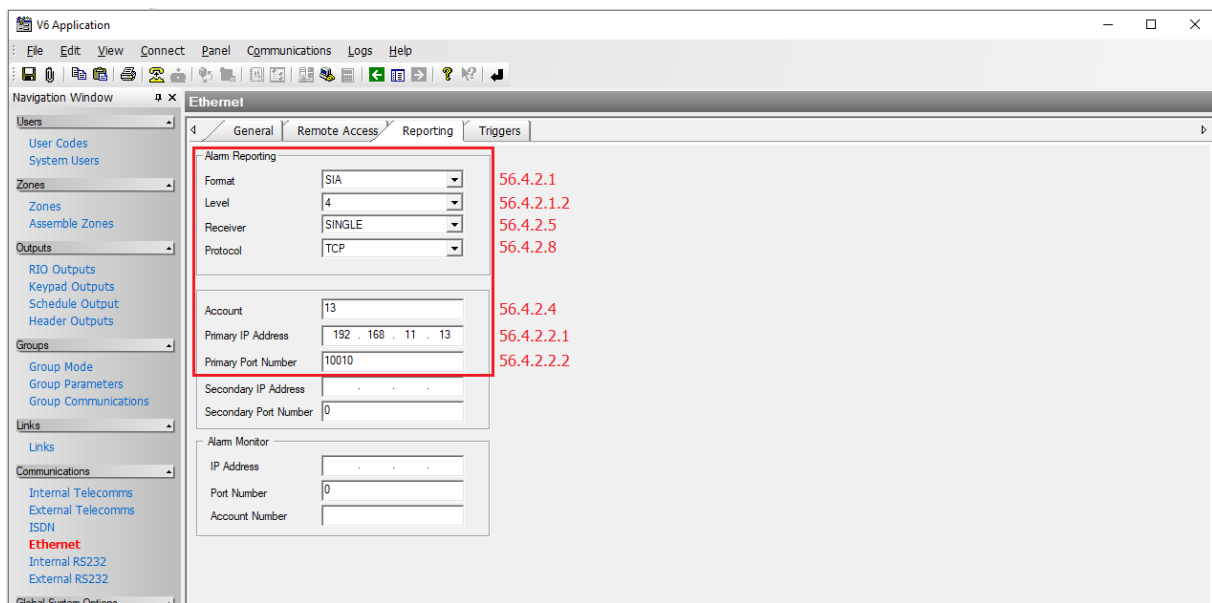
Configure alarm system according to manufacturer's instructions and manuals. Printscreens below present parameters which are essential in regard of the integration. They were taken from Galaxy Remote Servicing Suite (RSS) software. Additionally numbers of the parameters are shown in red. They can be used for manual configuration of Galaxy panel by means of keypad e.g. CP037.

In the *Remote* area, remote communication password can be changed into own 6 digit password. In this note the default PIN=543210 will be applied.

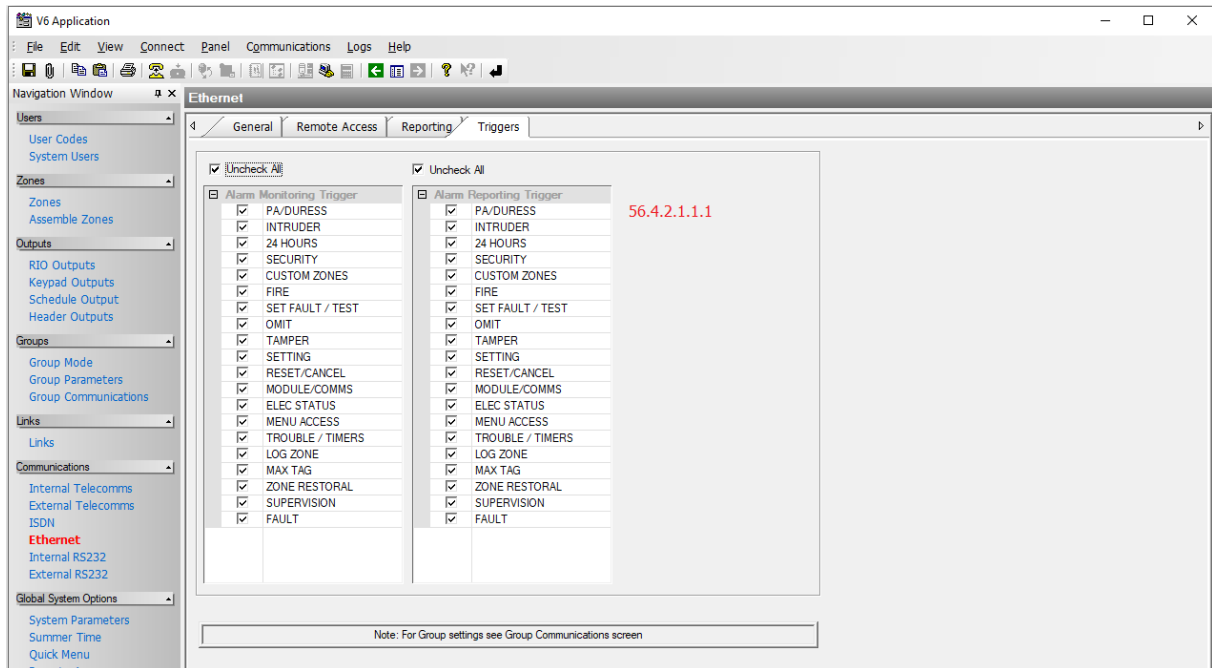
In *Module Config* area, there are entered parameters of E080-08 module which is used for communication with alarm panel via Ethernet. In *SIA IP Address* it is necessary to enter IP address of computer with virtual controller from RogerSVC software package of RACS 5 system.



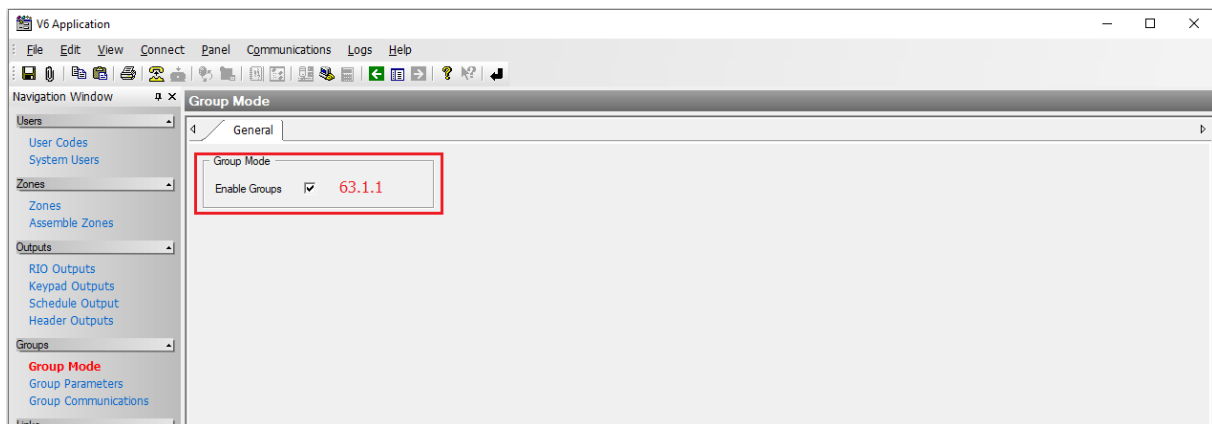
In *Remote Access* tab the limits for remote access to alarm panel are configured. It is recommended to define unrestricted access as in the window above.



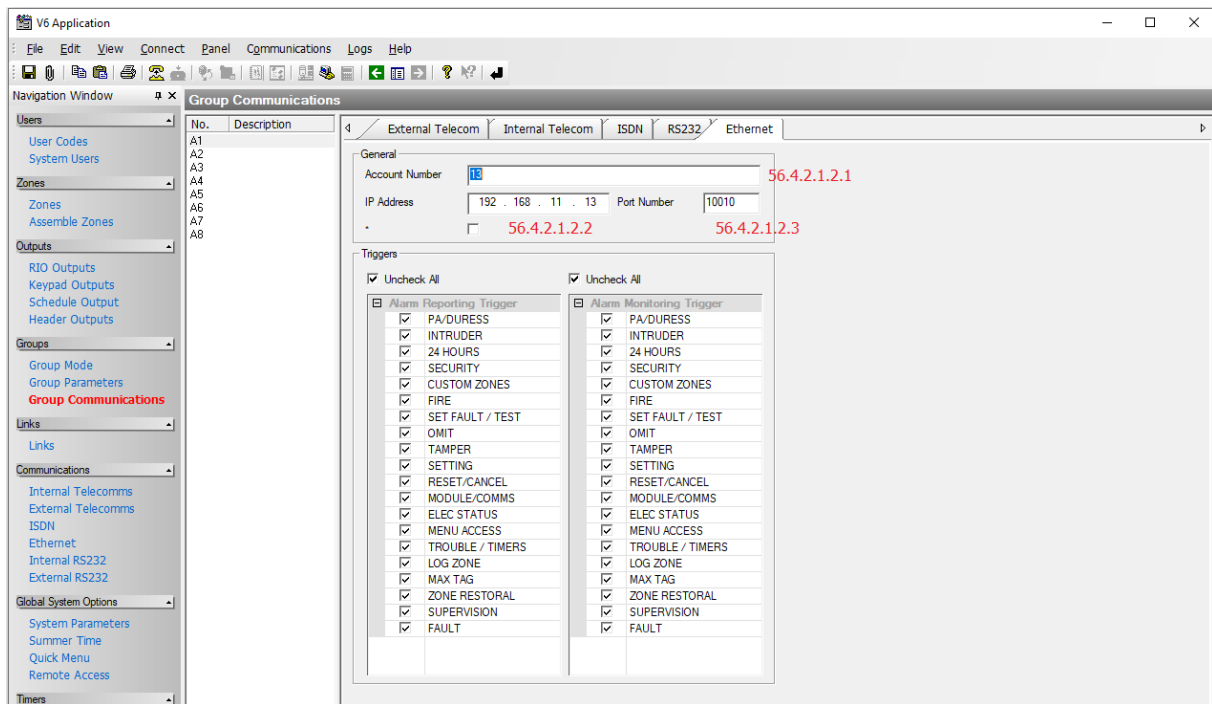
In this tab, communication parameters and format of events transmitted by alarm panel are configured. The parameter *Account* is necessary and it is used to distinguish Galaxy panels. The value 13 is exemplary. In *Primary IP address* it is necessary to enter IP address of computer with virtual controller from RogerSVC software package of RACS 5 system. The port 10010 is exemplary and the same port must be entered when integration connection is defined in RACS 5 system.



In *Triggers* tab the operator can select which events will be transmitted by alarm system and consequently registered in RACS 5 system. It is recommended to select all events.



In this window the operator can enable Groups. The integration is based on association of Alarm zones from RACS 5 system with Groups (Alarm zones) from Galaxy systems. If Groups with their Zones (detectors) are not defined then within the integration it will not be possible to arm/disarm particular detectors but only all detectors.



When Galaxy system is divided into Groups (Alarm zones) then it is necessary to define which events are to be transmitted for particular Groups by alarm system and consequently registered in RACS 5 system. It is recommended to select all events for all Groups.

Note: Virtual controller service and RSS software cannot be used at the same time for communication with Galaxy as they will interfere with each other.

Configuration of RACS 5 Alarm Zones

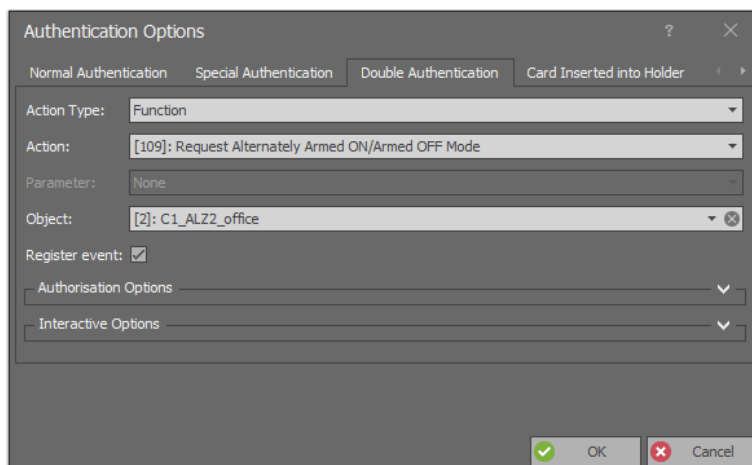
RACS 5 system enables configuration of Alarm Zones, each within single RS485 bus including MC16 access controller and its peripheral devices such as readers and expanders. Alarm Zone includes Access Points (readers) called Arming Points which are armed/disarmed concurrently which means that all Arming Points of particular zone are always in the same Armed mode. In order to create Alarm Zone:

- Configure access control system according to AN006 Application note in regard of Access Doors, Access Points, Users and their Authorisations.
- In the navigation tree of VISO software within particular MC16 access controller double click *Alarm Zones* command.
- In the opened window click *Add* button and optionally enter zone's name.
- Enable the option *Disable physical access when zone armed*, if Access Points of armed zone are supposed to deny access to users with access rights till zone disarming.
- Click *OK* button.
- In the bottom select *Arming Points* tab and assign Access Points to the Alarm Zone. These points (readers) will be armed/disarmed concurrently within their zone.
- Upload settings to controller. Red LED SYSTEM indicators on readers signify armed zone while green LED SYSTEM indicators signify disarmed zone.

Alarm Zone and assigned readers can be armed/disarmed with card, PIN, input, function key and remote command. These methods are described in detail in AN027 Application note which is available at www.roger.pl. The integration works in both directions which means that arming/disarming of Alarm Zone in RACS 5 results in arming/disarming of associated zone in alarm system while arming/disarming of zone in alarm system e.g. from its keypad results in arming/disarming of associated Alarm Zone in RACS 5 system.

In case of integration with Galaxy, arming/disarming can be initiated in RACS 5 only with functions which request arming/disarming. The concept of integration is such that RACS 5 system sends request to alarm system and if arming/disarming occurs in alarm system then based on a feedback it also occurs in RACS 5 system. Therefore in case of this integration, input functions [107]..[109] must be applied and functions [101]..[106] cannot be used. Consequently there is no need to use output functions as in hardware integration because in case of communication with Galaxy panels no outputs are used. All mentioned functions are listed and described in AN027 Application note which is available at www.roger.pl.

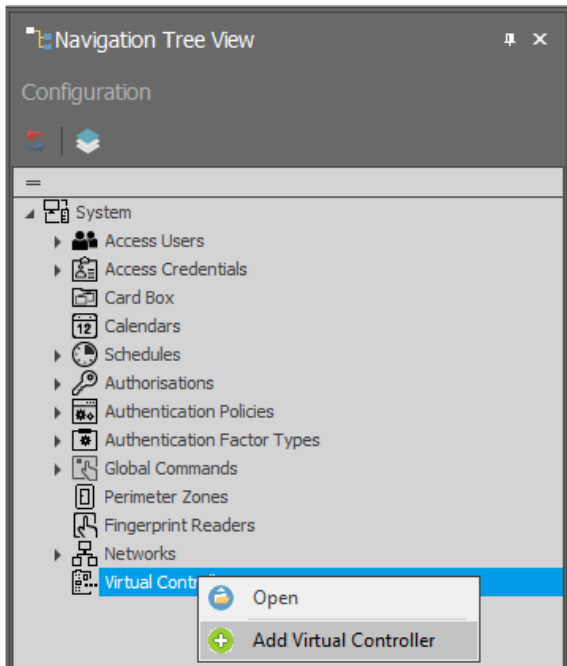
The drawing below presents exemplary settings in *Authentication Options* tab of Access point to enable arming/disarming by double card reading or PIN entering. In such case a user must be also assigned with Advanced Authorisation for function [109] as shown in AN027 Application note. At the same time, single card reading or PIN entering can still be used for access granting.



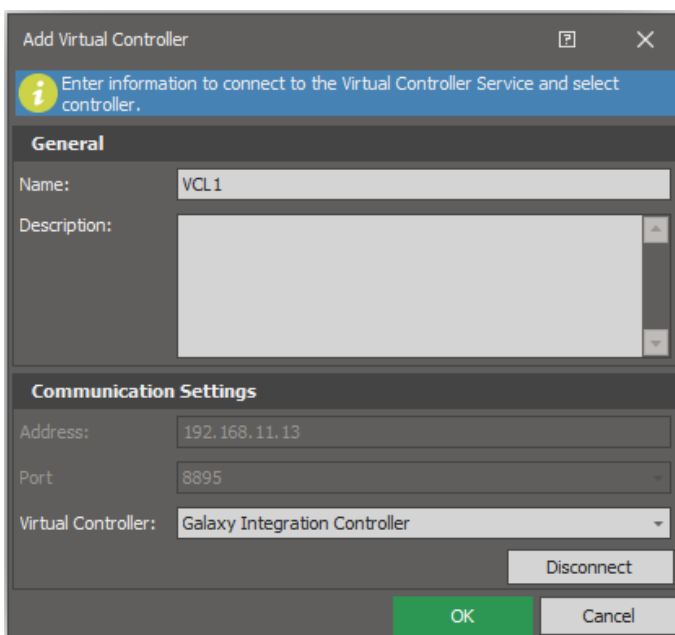
Configuration of communication between systems

In order to configure connection between virtual controller and Galaxy alarm panel:

- Start VISO software.
- In the navigation tree of VISO software right click *Virtual controllers* command and select *Add Virtual Controller*.



- In the opened window enter IP address and port which were previously defined with RACS Services Manager. Click *Connect* and select *Galaxy Integration Controller*. Close the window with *OK* button.



- In the navigation tree of VISO software click and expand your virtual controller, double click *Galaxy panels* command and select *Add* in the opened window.
- In the next window enter such parameters as E080-08 module IP address, communication port (10005 is necessary), PIN i.e. Galaxy remote password (543210 by default), Galaxy account number, and Galaxy monitoring port. Close the window with *OK* button.

Add Alarm Panel

General

Name: Galaxy Panel_1

IP address: 192.168.21.23

Communication port: 10005

PIN:

Description:

Monitoring

Account no: 13

Monitoring port: 10010

OK Cancel

- Select *Initialize* and then *Run* in the opened window to generate Alarm Zones , inputs and outputs of Galaxy panel. Close the window.

Note: If detection of Galaxy configuration fails then unblock TCP ports in the firewall of computer with virtual controller service. Following ports are used in the integration: 10001, 10002, 10005 and monitoring port which according to previous descriptions was set to 10010.

Note: If incorrect PIN is entered then the panel can disable the communication and it may be necessary to restart Galaxy panel by power supply switching off and on.

- Select *Configure zones* and in the opened window associate alarm zones of both systems Alarm zones from both systems can be linked in 1:1 relation.

Configure zones

Alarm Panel Zones	RACS 5 Alarm Zones
[1]: GROUP_0	[2]: C1_ALZ2_office
[2]: GROUP_1	[3]: C1_ALZ3_hall
[3]: GROUP_2	[4]: C1_ALZ4_store
[4]: GROUP_3	(none)
[5]: GROUP_4	(none)
[6]: GROUP_5	(none)
[7]: GROUP_6	(none)
[8]: GROUP_7	(none)

OK Cancel

Additional information

The integration enables bidirectional arming and disarming of alarm zones in RACS 5 system and Galaxy intruder alarm system. Events generated by Galaxy are downloaded, displayed and recorded in RACS 5 database. Therefore it is possible to configure alerts for such events including messages displayed by VISO and email or mobile text (SMS) sent automatically by communication service. Additionally it is possible to monitor and control Galaxy system on VISO map.

Arming and disarming

According to the description in AN027 application note, Alarm Zones in RACS 5 system can be armed and disarmed by means of Authentication Factors (card, PIN) on the level of Access Points (reader) and by means of Inputs, Function Keys and Remote Commands. The integration is bidirectional so Alarm Zones in both systems can also be armed and disarmed by means of Galaxy keypads and schedules.

Alerts

When event is registered in RACS 5 software then actions can be started automatically. The action could among others consist in alert window displaying in VISO software and email or mobile text (SMS) sending. RACS 5 can also collect and display Galaxy events. In order to define automatic alert displaying in VISO software when exemplary event [16980]: *GALAXY: Burg Trouble* is registered:

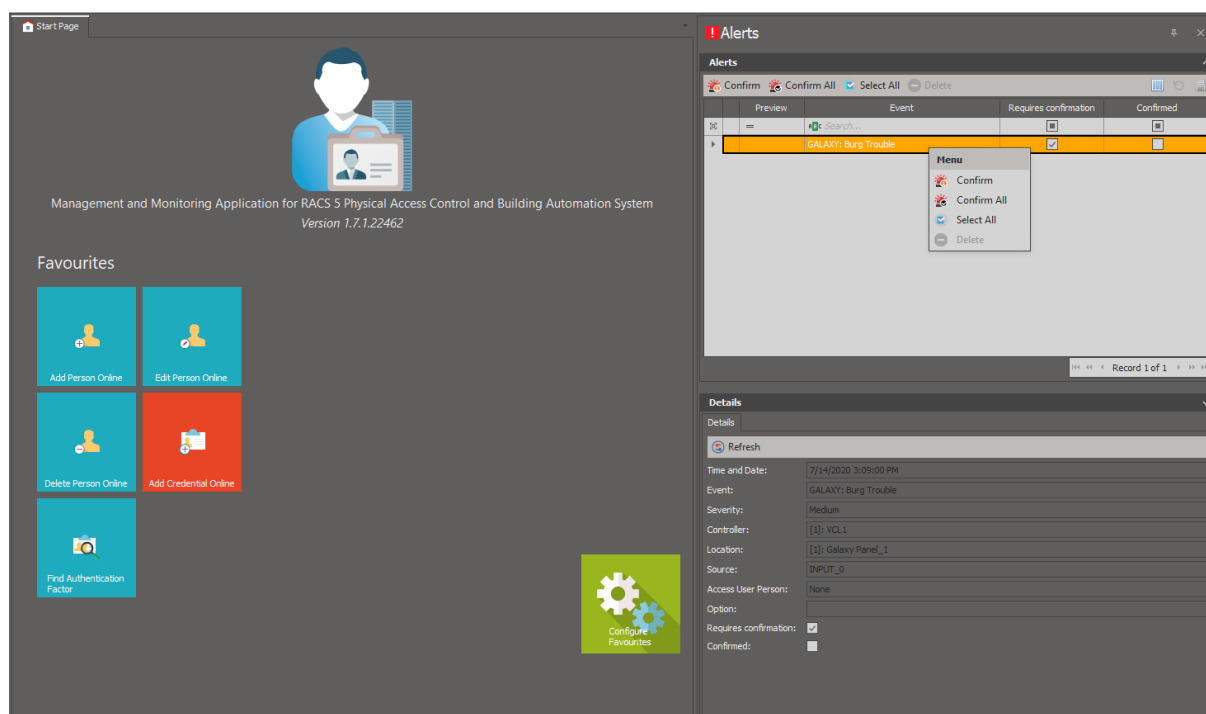
- In the top menu of VISO software select *Event Log* and then *Event Types*.
- In the list find and select event [16980].
- In the bottom select *Actions* tab and then *Add* button.
- In the opened window select *Show alert*, select operator(s) who can view the alert and enable the option *Requires confirmation* so the alert would require operator confirmation before closing. Such confirmations are registered in log which can be accessed by selection of *Administration* command in the top menu of VISO software. If it is necessary to limit alerts to specific [16980] events e.g. only from certain alarm panel then define and assign your filter. Close the window with *OK* button.

The screenshot shows the 'Add Action' dialog box with the following fields and values:

- Action**
 - Active: ☒
 - Type: Show alert (highlighted with a red rectangle)
 - Execution Site: Action Site
 - Description: Show alert with information about the event. You can set the requirement for the alert to be confirmed.
- Filter:** None
- Event validity time:** None
- Operators:** Administrator
- Parameters**
 - Requires confirmation: ☒

Buttons: OK, Cancel

When event [16980] is registered in the system and VISO software is started then alert window is displayed automatically.



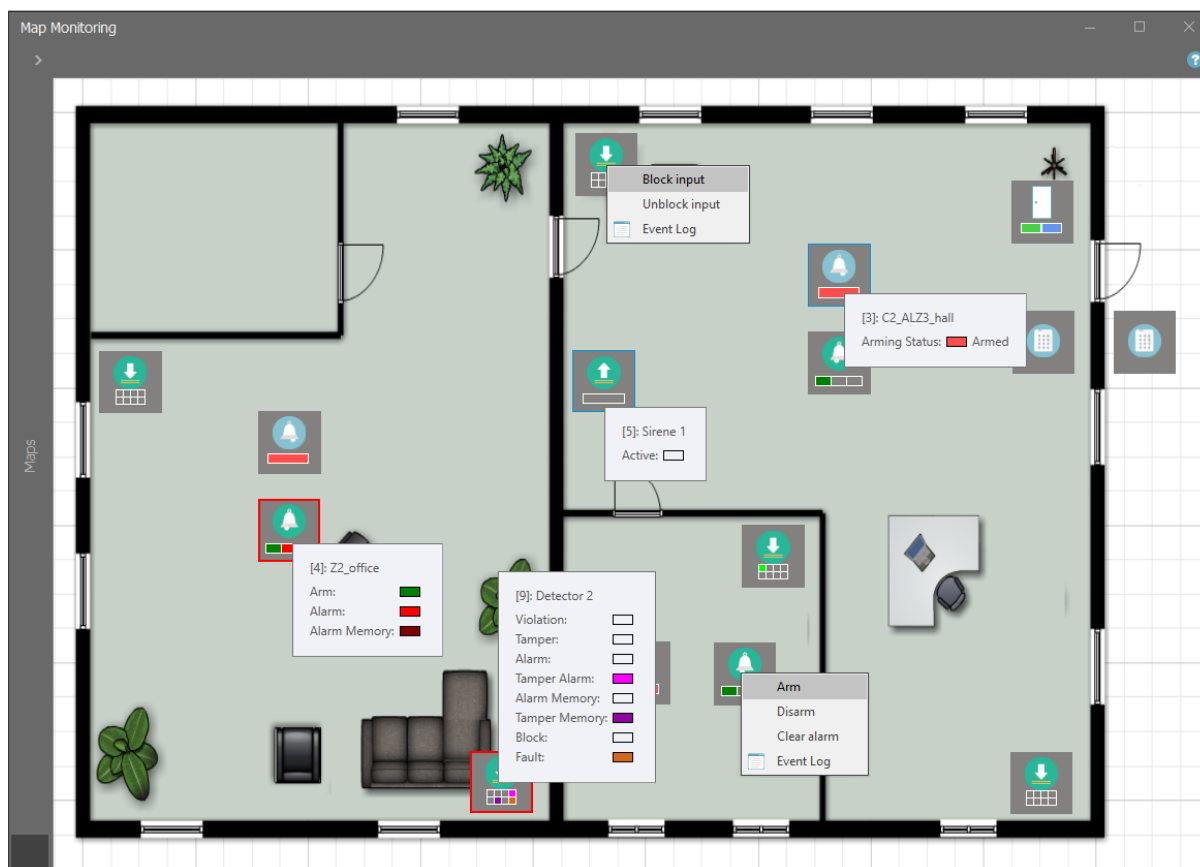
Similarly other actions such as email or mobile text (SMS) can be defined but in their case it is also necessary to define SMTP Account and/or SMS Gate by selection of *Tools* command in the top menu of VISO software. Emails and mobile texts are controlled by communication service of RogerSVC software and they do not require VISO to be started.

Note: More information on alerts and notifications is given in AN041 application note.

Map

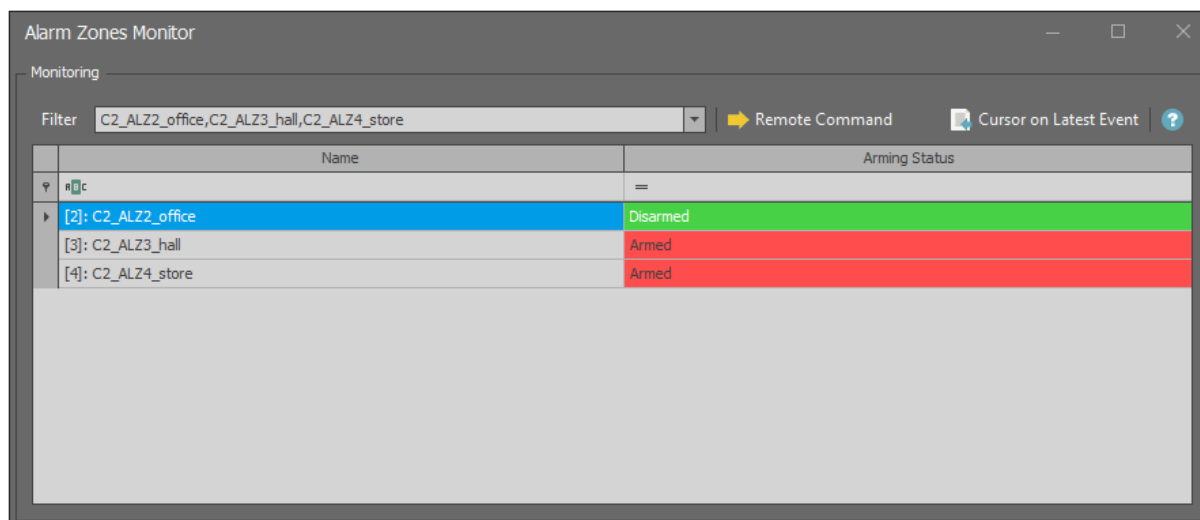
VISO software offers interactive map which can be used to monitor building. The map presents status of RACS 5 and Galaxy Alarm Zones and it shows alarms which are detected and registered in Galaxy alarm system. Additionally the map can be used to remotely control Galaxy system e.g. arm zone, block input, etc. The map can display not only object which are shown in the figure below such as Alarm Zones, Inputs, Outputs, Access Doors and Access Points but also such objects as CCTV devices which can show video online, Access Zones and Automation Nodes.

Note: It is necessary to start Alarms monitoring process in order to use mentioned functionalities. The process can be started by selection of *Tools* in the top menu of VISO software and then *System Processes*.



Alarm Zone Monitor

When *System Monitors* command in the top menu of VISO software is selected then Alarm Zones Monitor can be started. The monitor displays status list of Alarm Zones in RACS 5 and it can be used to start Remote Commands.



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