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# Roger Access Control System 5v2

Application note no. 036

Document version: Rev. A

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Integra (SATEL) integration

Note: This document refers to RACS 5 v2.0.8 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 Integra alarm control panels from Satel company. In such scenario the communication of access control system with alarm system is ensured by Virtual Controllers Server (Windows service) from RogerSVC software package. Alarm system can include multiple alarm control panels, each equipped with ETHM-1 Plus module. The integration requires purchase of license.

General concept of integration with Integra panels
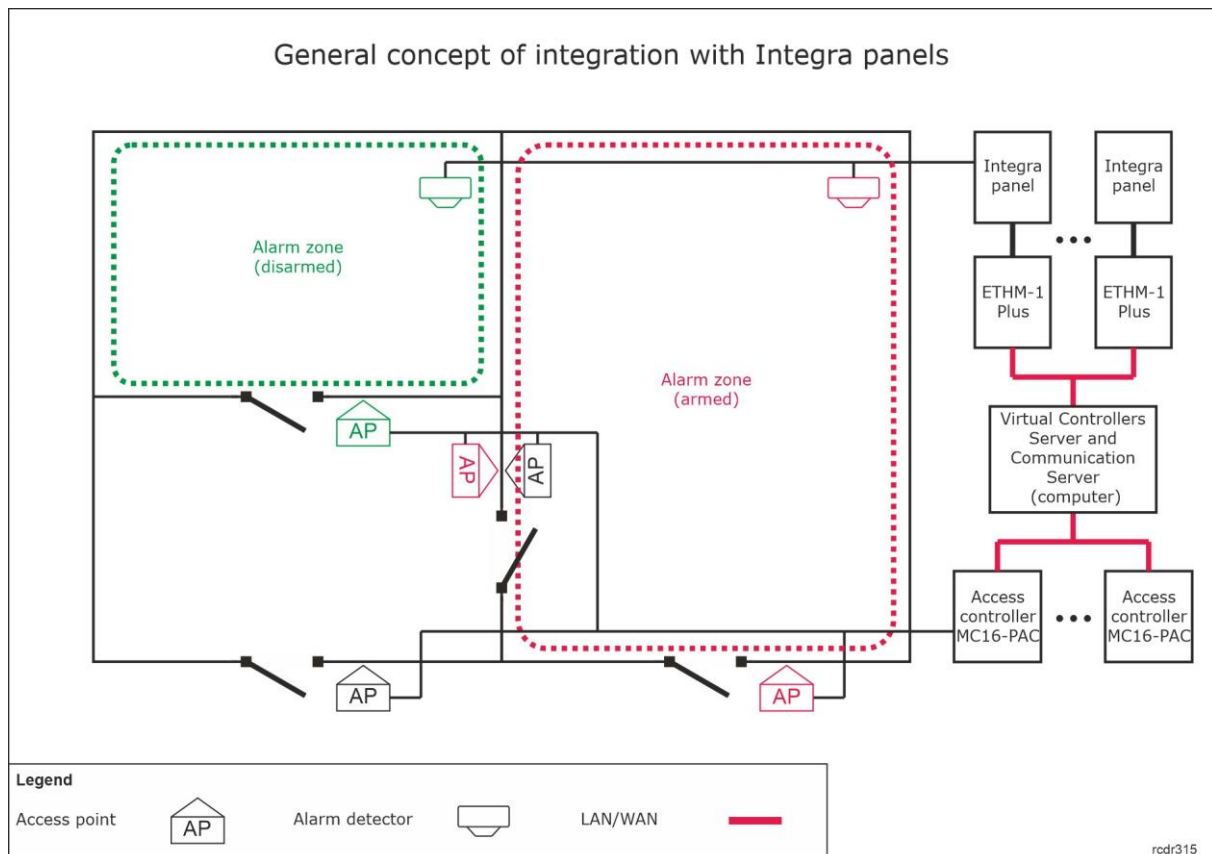
The concept of integration is based on logical connection of RACS 5 system Alarm Zones which include Access Points (readers) with Integra system Alarm Zones which include detectors. In practical application it means that the Armed mode of reader(s) and associated detector(s) is the same. Therefore the 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 Integra alarm system in VISO management software by means of available monitors, Maps and remote commands. The integration can also be applied in Security Management Module which offers SMS (Security Management System) functionalities within VISO software. More information on this subject is given in AN055 application note.

Note: The integration enables association of multiple RACS 5 Alarm Zones with multiple Integra Alarm Zones but only single partition in Integra panel can be applied.

Preliminary configuration of RACS 5

In order to conduct preliminary configuration of RACS 5:

- Install VISO software and create database according to AN006 application note.
- Install RogerSVC software and select not only Communication Server but also License Server and Virtual Controllers Server. If servers are supposed to be operated on individual computers then install RogerSVC on each computer selecting required servers.

Note: If License Server and Virtual Controllers Server are supposed to be operated on individual computers then during installation of Virtual Controllers Server, the License Server must be deselected. Only in such case it will be possible to indicate external License Server when Virtual Controllers Server is configured.

- When RogerSVC is launched then its icon is displayed in Windows tray. Click the icon 🖳. The RogerSVC icon in tray can also be launched from Windows menu *Start-> Roger-> RogerSVC.*
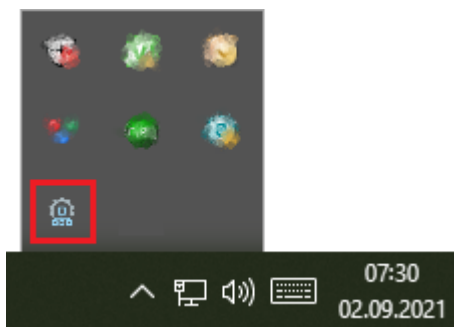

- In the RogerSVC window select *Database Connection* tile and then *Configuration* to indicate previously created RACS 5 database. Return to the main window.

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- In the RogerSVC window select *Communication Server*, click *Configuration,* enter IP address of the computer with the server installed e.g. 192.168.11.13 and define port (8890 by default).
- Select *Start* and return to the main window. The server will be started and operated in the background whenever the computer is switched on even if RogerSVC window is closed.
- Connect RUD-6-LKY hardware key to USB port of computer with License Server installed or connect RLK-1 hardware key to LAN and enter its IP address.
- In the RogerSVC window select *License Server* tile, click *Configuration,* enter IP address of the computer with the server installed e.g. 192.168.11.13 and define port (8891 by default).
- Select *Load license file* and indicate purchased license file for the hardware key.
- Select *Start* and return to the main window. The server will be started and operated in the background whenever the computer is switched on even if RogerSVC window is closed.
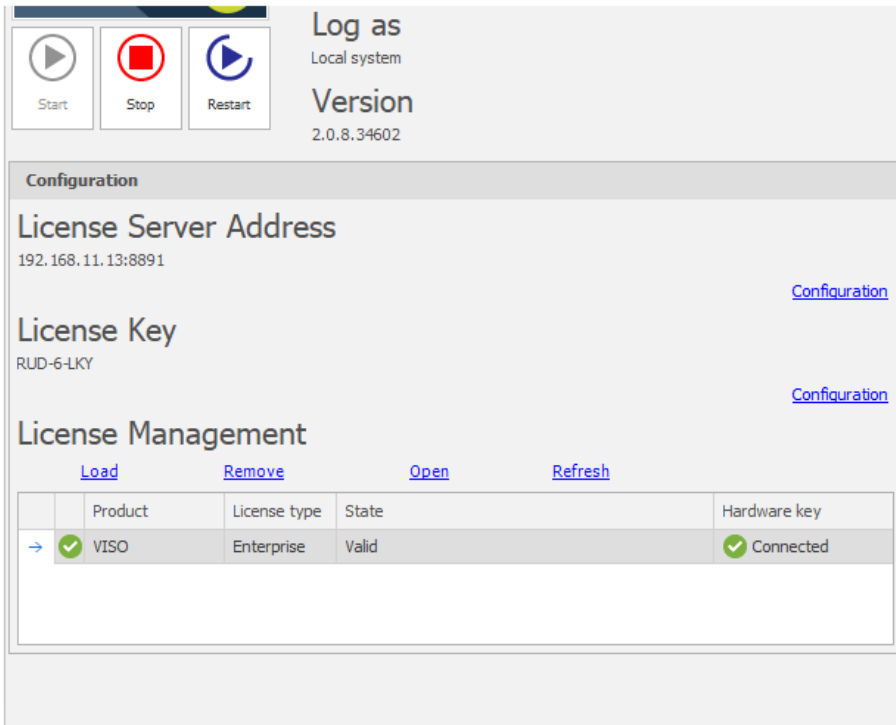
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- In the RogerSVC window select *Virtual Controllers Server* tile, click *Configuration*, enter IP address of the computer with the server installed (e.g. 192.168.11.13) and define port (8895 by default).
- If contrary to previously presented configuration steps, the License Server is installed on a computer with exemplary 192.168.11.23 address while Virtual Controllers Server is installed on computer with exemplary 192.168.11.13 address then it is possible to indicate external License Server for virtual controllers as below.
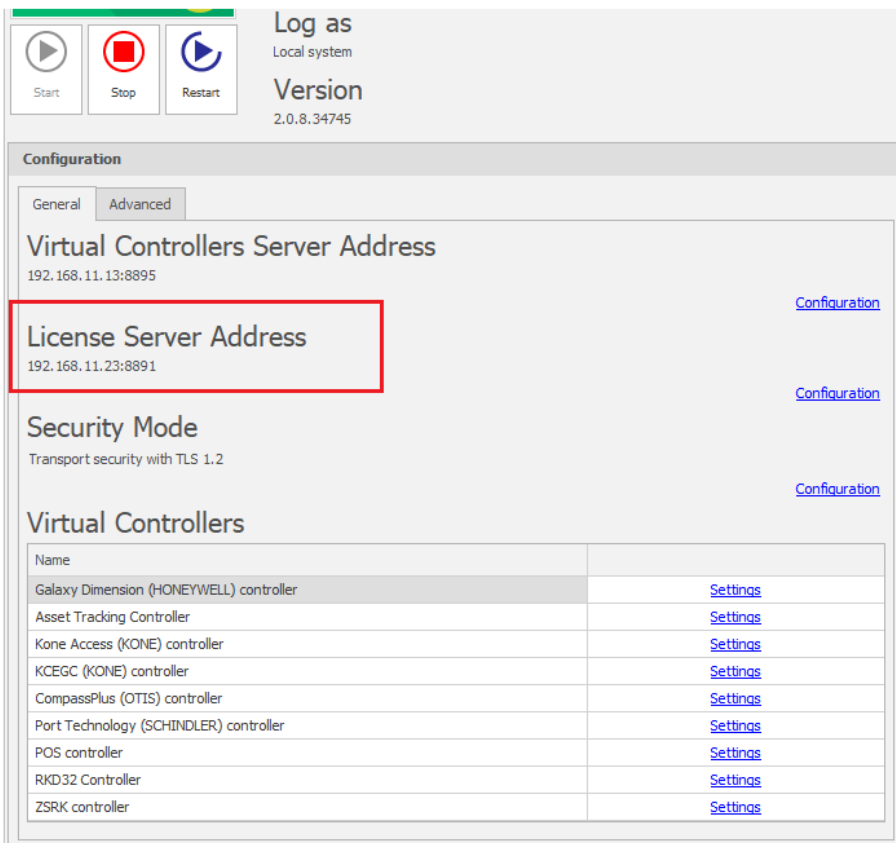
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- Select *Start* and return to the main window. The server will be started and operated in the background whenever the computer is switched on even if RogerSVC window is closed.
- Start VISO software, in the top menu select *System*, then *Select License Server* and indicate previously defined License Server from RogerSVC software in order to start the VISO program in licensed version.

Configuration of alarm system

Configure the intruder alarm system with Integra control panels according to manufacturer manuals and guidelines. Additionally start DLOADX software, select *Data->System and hardware structure->Hardware->ETHM-1* and in the properties of each ETHM-1 Plus module enable *Integration* option and specify communication port.
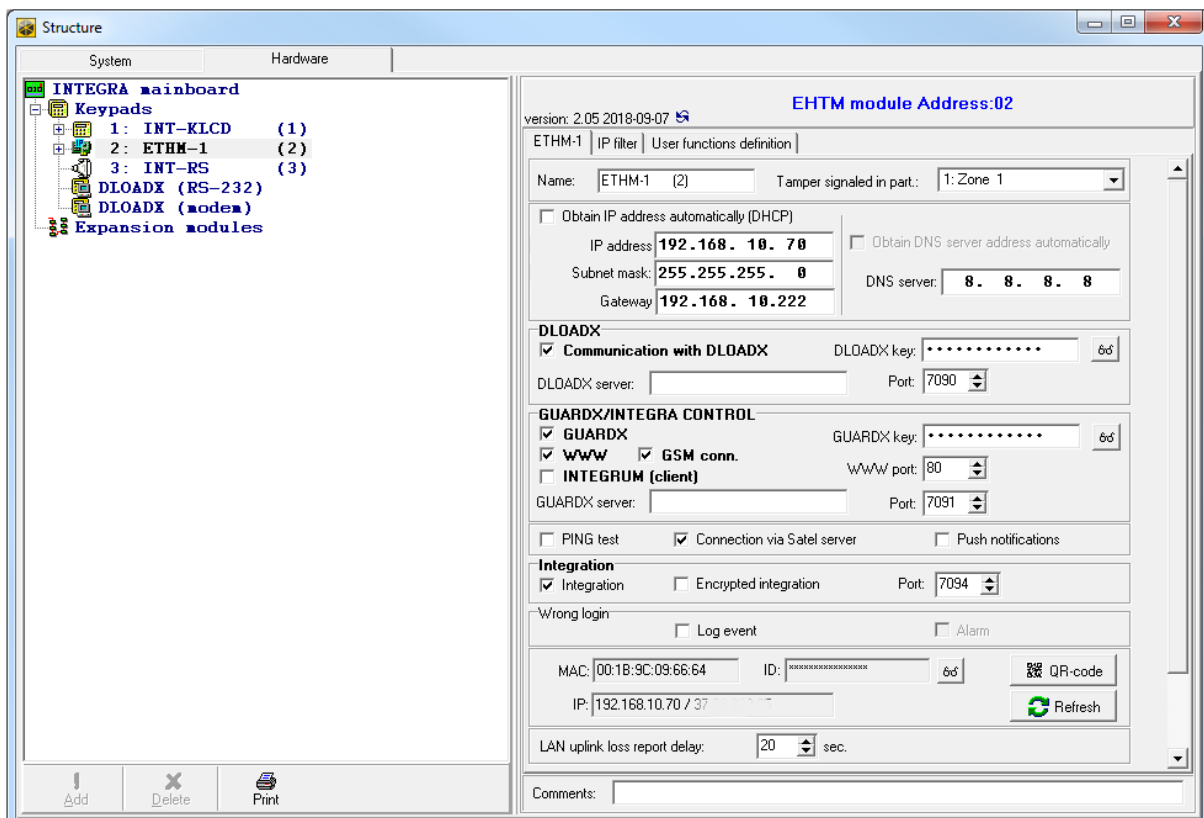
Configuration of RACS 5 Alarm Zones

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. Close window with *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 Authentication Factor (e.g. 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 Integra, 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 Integra panels no outputs are used. All mentioned functions are listed and described in AN027 Application note which is available at www.roger.pl.

The image 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.
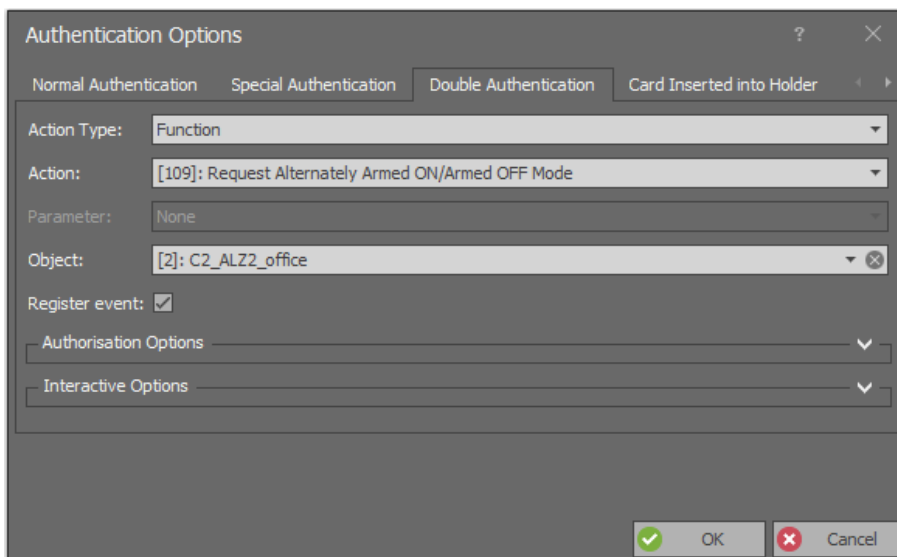
Configuration of communication between systems

In order to configure virtual controller:

- If Communication Server is not already configured in VISO software then in the navigation tree of VISO software right click *Networks* command and select *Add Communication Server*.
- In the opened window enter parameters of Communication Server previously configured in RogerSVC program and close the window with *OK* button. It is recommended to apply TLS 1.2 mode to encrypt the communication.

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- In the navigation tree right click *Virtual Controllers Server* and select *Add Server*. In the opened window enter parameters of Virtual Controllers Server previously configured in RogerSVC program and click *OK*. It is recommended to apply TLS 1.2 mode to encrypt the communication.
- In the navigation tree right click the server and select *Add Virtual Controller*. In the section *Intruder Alarm Systems* select *Integra (SATEL) controller*. If the controller is not on the list then most probably there is license error on the level of VISO software or RogerSVC software. Close the window with *OK* button.
- In the navigation tree of VISO software double click *Integra Controller* and select *Add* in the opened window.
- In the next window enter such parameters as ETHM-1 module IP address, integration port (7094 by default) and Integra administrator password (1111 by default) or Integra user password if such user has proper arming/disarming rights defined in Integra. The option *Events collecting* does not concern state events i.e. *[151000]..[151005]* as they are always generated in VISO. Close the window with *OK* button.

- Select *Initialize* and then *Run* in the opened window to download alarm zones, inputs, outputs and users defined in Integra panel. Close the window.

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Note: If zones downloading from Integra panel fails then you can consider different port (7094 is used by default) and/or configure allowing connection rules for TCP protocol at your Windows firewall.

- Select *Configure zones* and in the opened window associate alarm zones of both systems.
- Upload settings to the system.
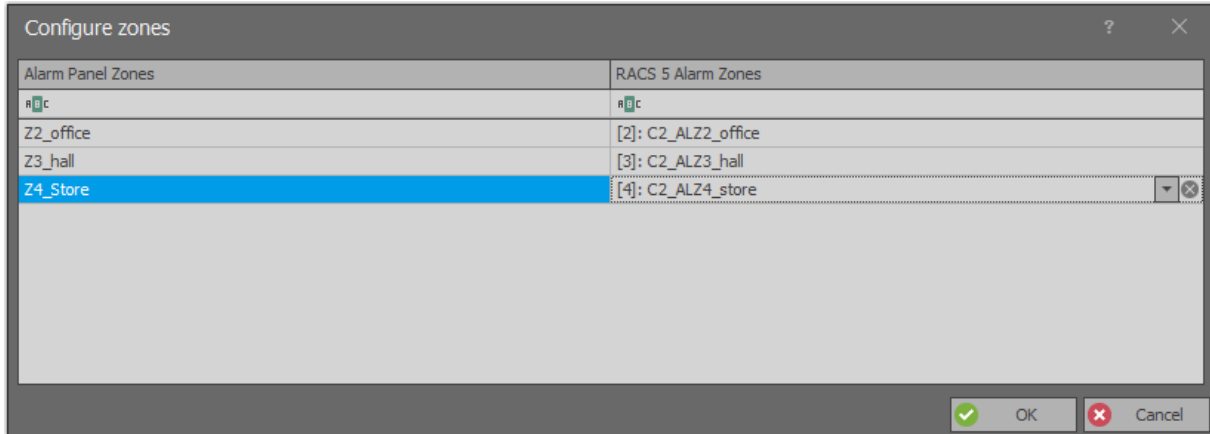
Alarm zones from both systems can be linked in 1:1 relation. If it is necessary to assign single Integra zone to multiple RACS 5 zones then such Integra zone can be divided into master and subordinate zones each linked with one of RACS 5 zones.

Additional information

The integration enables bidirectional arming and disarming of alarm zones in RACS 5 system and Integra intruder alarm system. All events generated by Integra are downloaded, displayed and recorded in RACS 5 database. Additionally events *[151000]..[151005]* are generated in VISO based on states detected in the Integra panel.

The integration can be used in VISO SMS which is system for monitoring and visualisation of security systems in a facility. More information on this subject is given in AN055 application note.

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, etc.) 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 Integra keypads and schedules.

Actions

When event is registered in RACS 5 software then actions can be started automatically. The action could among others consist in email or mobile text (SMS) sending. RACS 5 can also collect and display Integra events. More information on actions is given in AN041 application note.

Maps Monitor

VISO software offers interactive Maps which can be used to monitor a building. The Map presents status of RACS 5 and Integra Alarm Zones and it shows alarms which are detected and registered in Integra alarm system. Additionally the Map can be used to remotely control Integra system e.g. arm zone, block input, etc. The Map can display various objects such as Alarm Zones, Inputs, Outputs, Access Doors, Access Points, Access Zones, Automation Nodes and CCTV devices which can show video online. More information on Maps and Security Management Module is given in AN055 application note.

Note: *Alarms monitoring process* and *Alarm Zones monitoring process* must be enabled within Communication Server in VISO software in order to use mentioned functionalities.
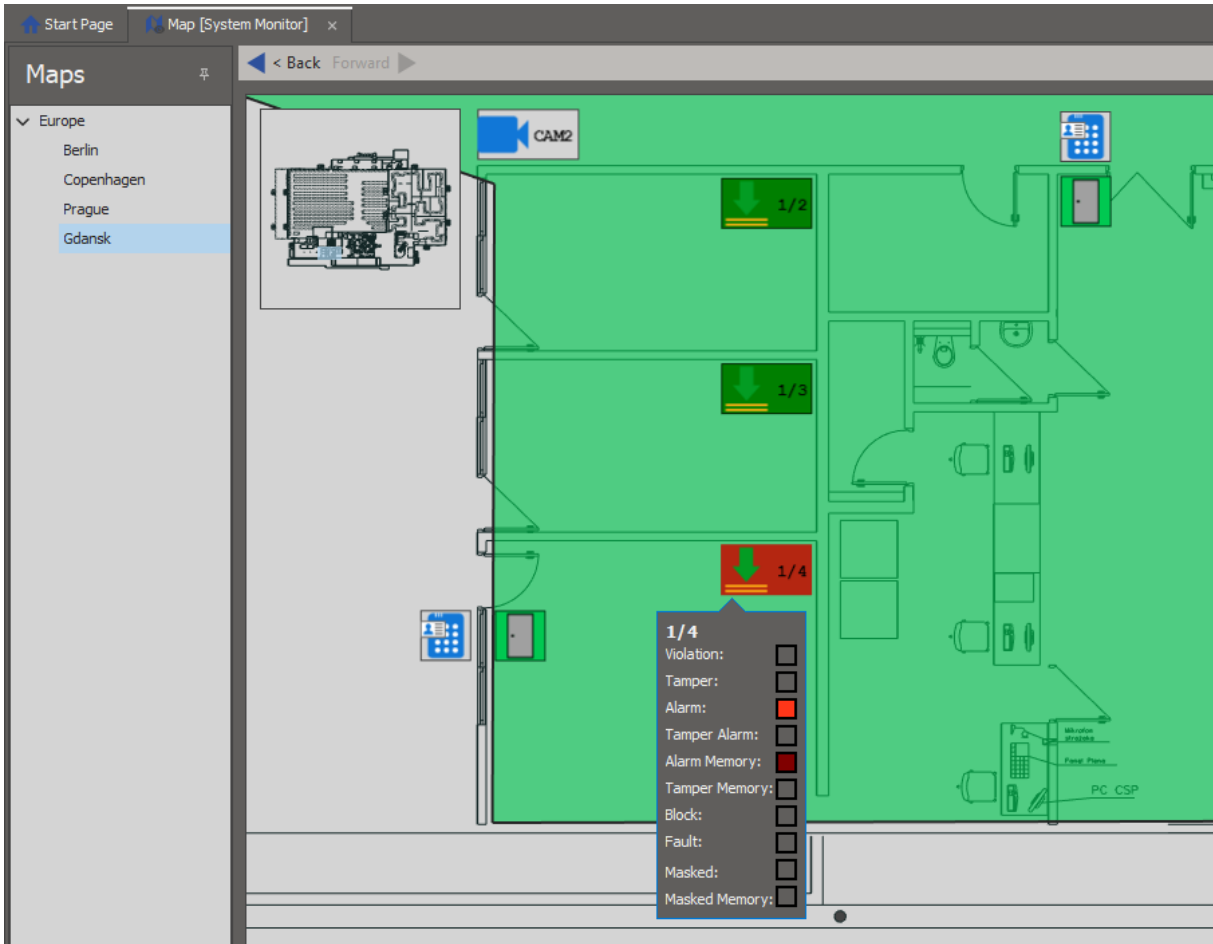
Alarm Zones Monitor

When *Monitoring* 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.
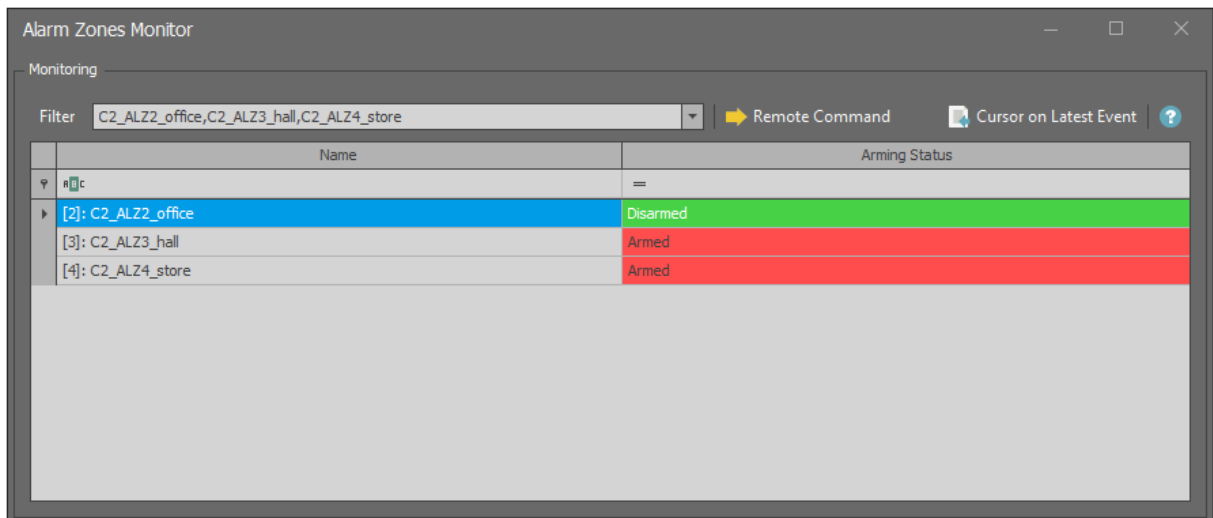
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