

Roger Access Control System 5

Application note no. 007

Document version: Rev. E

CCTV systems integration

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

Introduction

RACS 5 system can be enhanced with additional functionalities when linked with CCTV devices and systems. The integration with CCTV is provided on the level of VISO management software and it concerns

- HIK Vision video recorders
- Dahua video recorders
- BCS Line video recorders
- ProvisionISR video recorders
- IPOX video recorders
- XProtect (Milestone) video monitoring system
- ONVIF cameras
- RTSP cameras
- Roger devices cameras (e.g. MD70)

The integration is based on CCTV SDK versions which are up-to-date when RACS 5 software is released and it enables:

- Displaying of video clips and photos related to RACS 5 events
- Video monitoring of doors and users in Attendance Zone CCTV Monitor
- Video monitoring of premises on map
- Camera live view

Note: Alternative integration scenario with XProtect (Milestone) video monitoring system is explained in AN018 application note.

Note: The application of HIK Vision license plate recognition (LPR) cameras is explained in AN028 application note.

Note: CCTV application in Remote authorisation is explained in AN025 application note.

Connection with CCTV

In order to configure connection with CCTV:

- Select the command *CCTV* in VISO software top menu.
- Click *CCTV Devices* icon.
- Select *Add* button in *CCTV Devices* window.
- In the newly opened window enter CCTV parameters such as provider, IP address, port, login and password. It is recommended to use administrator credentials.
- Click *Test Configuration* button in order to verify your settings.

- Close the window with *OK* button.
- Add more CCTV devices/systems if needed. VISO software can operate with multiple supported CCTV devices/systems at the same time.

Video clips and images

It is possible to associate events registered in RACS 5 system with video recorded by CCTV system and then to enable video clips and images displaying in VISO software. In practical applications it can be used for convenient and visual verification if recorded video confirms that according to registered event certain access granting or other action at the door was actually performed by particular user and not another person. Adequate video clip or image is downloaded by VISO software on operator request based on so called Video Links and/or Image Links. Such links specify connection of Access Point or Access Door with CCTV device/system and its channel (camera) and also with event type of RACS 5 system. If the integration with Integra (Satel) or Galaxy (Honeywell) intruder alarm system is configured then association of CCTV device/system with Alarm Zone and alarm system input line is also possible. Downloaded video or images can be saved in database or locally on computer.

Link configuration

In order to define Video Link for selected events:

- In the top menu of VISO software select *Wizards* and then define doors with *Add Access Door* wizard including required access Authorizations.
- Enrol users with *Add Person Online* wizard assigning Authentication Factor(s) and all access Authorizations.
- Configure connection with CCTV according to previous section of this document.
- Select *CCTV* command in the top menu of VISO software and then *Video Links* icon.
- Click *Add* button in *Video Links* window.
- In the newly opened window enter name of the link and select object i.e. previously created Access Point or Access Door.
- In *CCTV Device* tab indicate which CCTV device/system and channel (camera) will be associated with previously selected Access Point or Access Door. In case of active connection with CCTV device/system a channel preview is displayed.

- Additionally, in *Other options* tab it is possible to define video clip time settings.
- Close the window with *OK* button.
- In the bottom select *Events* tab and then *Assign* button in order to select event types for the link e.g. [629]: *Access Granted*, [630]: *Access Denied*.

Note: Event type which is selected for Video Link or Image link must be related to previously selected object type e.g. the source of [629]: *Access granted* event is *Access Point* while the source of [601]: *Door Access Granted* is *Access Door*.

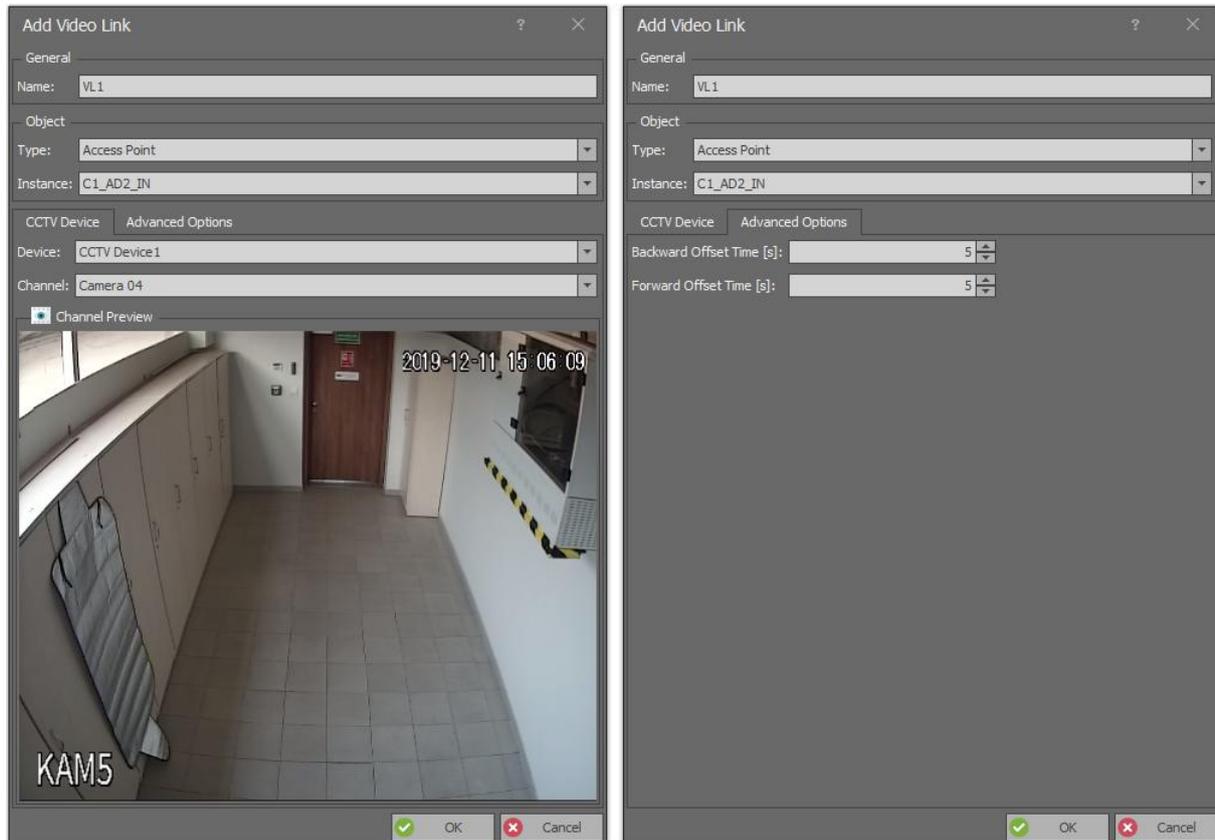


Image Link is defined similarly to Video Link by selection of *Image Links* icon after selection of *CCTV* command in the top menu of VISO software. In case of Image Links it is possible to define number of taken photos, time between photos and backward offset time.

Displaying and saving

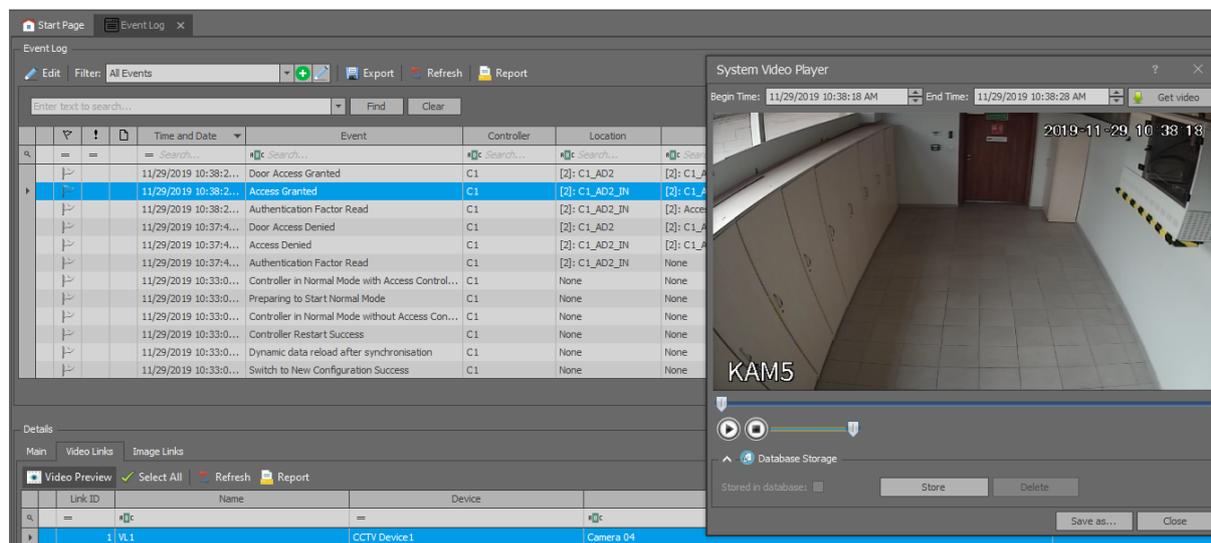
After configuration of one or more links it is possible to download, display and save video clips and images on the level of Event Log and Event Monitor.

In order to display and save video clip for an event:

- In VISO top menu select the command *Event log* and then the icon *Event log*.
- In the newly opened window select predefined event filter or configure own filter and then close the window with *OK* button.
- For the events which were indicated in Video Link configuration e.g. [629] and [630] select *Video link* tab in the bottom of the screen and then *Show Video Preview* button.
- In the newly opened window, video clip associated with the event shall be played automatically.
- If the video is not synchronized properly with the event then *Begin time* and *End time* can be changed manually and video clip can be downloaded again with *Get video* button.

- The video clip can be saved with *Store* button in database for further replaying even if source video in recorder is not available anymore. The button *Save as...* can be used to save video clip file locally in .avi format.

Image displaying and saving is done in similar way by selection of *Image Links* tab in Event log or Event Monitor and then *Show Image Preview* button.



Note: In case of problems with video displaying for HIK Vision devices it is recommended to download DSFilters components from HIK Vision webpage and install them.

Note: In case of Image links the value of I-frame interval parameter in IP camera cannot be too high. The optimal value for 1 s *Time Between Images* in VISO and 25fps in camera equals to 25.

Attendance Zone CCTV Monitor

VISO software enables current monitoring of user accessing Entry Points and/or Exit Points of selected Attendance Zone and displaying associated information in dedicated Attendance Zone CCTV Monitor. The monitor can show not only user names and photo, event location and source but also video from associated camera. In practical applications the monitor can be used by a guard for current and visual verification if persons entering premises use their own and not borrowed or stolen Auth. Factors by comparison of user's photo with camera view. VISO software enables to start multiple monitors at once in individual windows which can be shown on multiple displays. To start multiple monitors click the monitor icon multiple times and then drag and drop each tab beyond VISO main window.

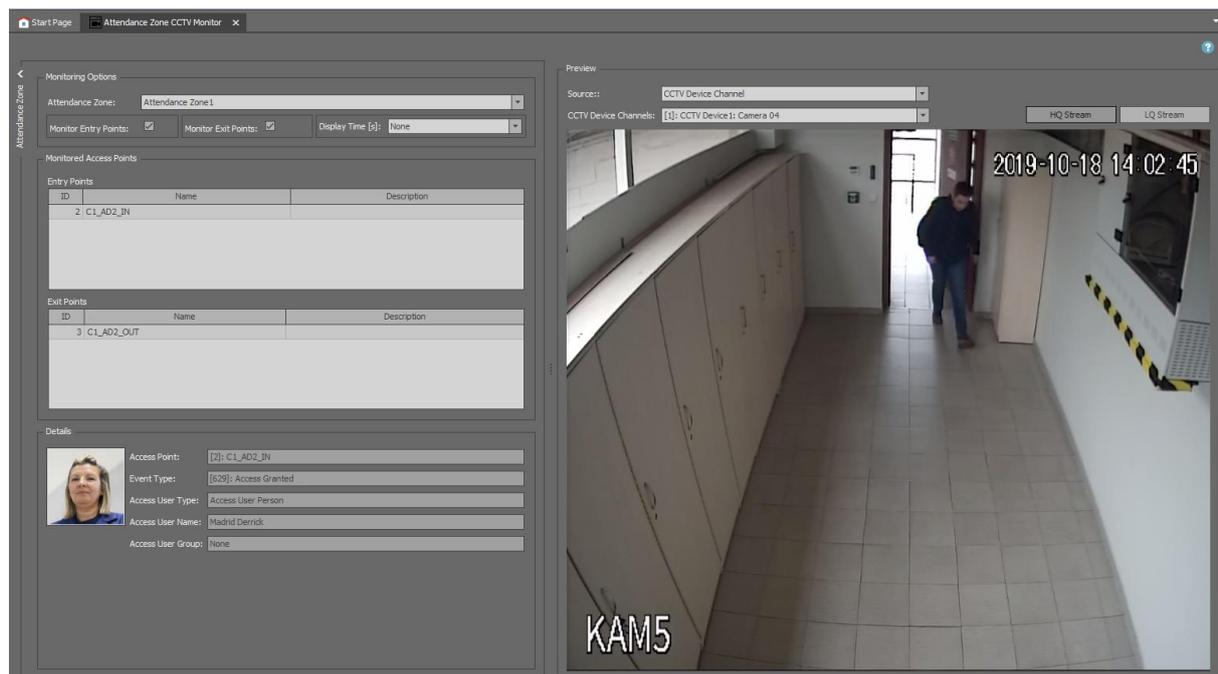
In order to start Attendance Zone CCTV Monitor:

- Create Access Door with *Add Access Door Wizard* including all access Authorizations.
- Enrol users with *Add Person Online* wizard including names and photos as well as assigning Authentication Factor(s) and required access Authorizations.
- Configure connection with CCTV device according to previous sections of this document.
- Configure one or more Video Links according to previous sections. Links must be associated with Access Points and not Access Doors.
- Define Attendance Zone selecting the command *Time and Attendance* in VISO top menu and then *Attendance Zone* icon.
- In the opened window select *Add* button, name the zone and close the window with *OK* button.
- In the bottom select the tab *Entry Points* and use *Assign* button to indicate entry Access Point(s). Similarly define Exit Point(s) for the zone.
- In the top menu of VISO software select *Event log* command and then *Door Monitor* icon.

- In the opened window select Attendance Zone and select Entry Points and/or Exit Points for monitoring.
- When Authentication Factor (e.g. card) is used by user at Access Point belonging to selected Attendance Zone and associated by Video Link with particular channel (camera) then not only user information including photo is displayed but also video from associated camera.

Note: In case of External or Delayed Access Mode, the monitor additionally enables to grant or deny access. More information on Access Modes is given in AN025 application note.

Note: For the purpose of integration it is recommended to apply CCTV devices which enable multiple and concurrent logins for operator whose credentials are used in communication with such devices.



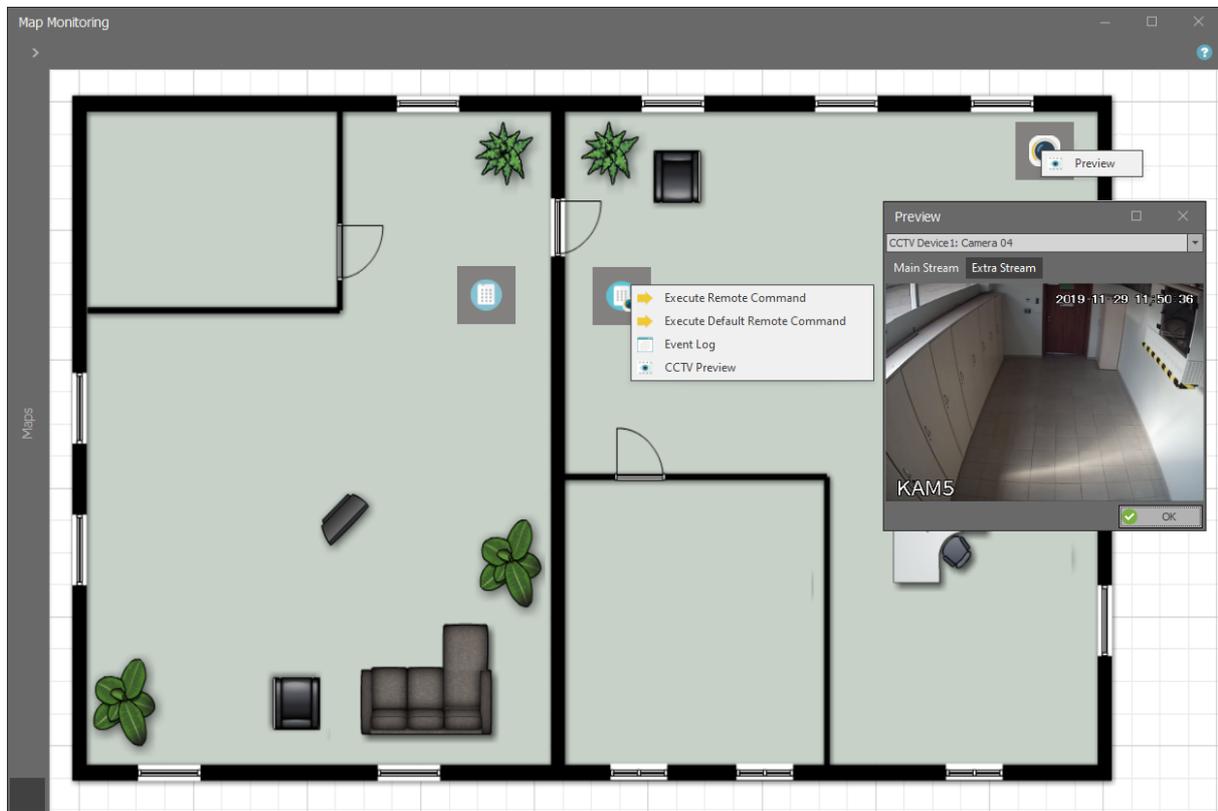
Video monitoring on map

VISO software enables creating maps with such objects as Access Doors, Access Points, Access Zones, Alarm Zones, Automation Nodes and CCTV Devices. Map in monitoring mode can be used to remotely control mentioned objects and in case of CCTV Devices to display video from camera. In practical applications it can be used by system operator to visually check surroundings of certain Access Door prior to remote opening of such door or to verify visually if there are no users inside Alarm Zone prior to its remote arming. VISO software enables starting multiple map monitors at once in individual windows which can be shown on multiple displays. To start multiple monitors click *Map Monitoring* icon multiple times and then drag and drop each tab beyond VISO main window.

In order to use Access Door and CCTV Device object on map:

- Create Access Door with *Add Access Door Wizard*.
- Configure connection with CCTV device according to previous sections of this document.
- In the top menu of VISO software select *Maps* command and then click *Map* icon.
- In the opened window select *Add* button and in the newly opened window name the map and indicate graphic plan of premises using *Load Picture* button. Such plan could be in any graphic file e.g. JPG format. Close the window with *OK* button.
- In the bottom select *Map Designer* tab and then *Edit* button.

- In the newly opened window drag and drop previously created Access Door and CCTV Device objects. Close the designer with *OK* button.
- In the top menu of VISO software select *Maps* command and then *Map Monitoring* icon.
- In the newly opened window right click CCTV Device object and then select *Preview* command to display video from camera. CCTV live view can also be started by right clicking Access Point or Access Door if such point or door was previously assigned to camera when Video link was created.



The map can also be used to issue remote commands e.g. open a door. Contrary to *Preview* command for CCTV Device object, the *Remote command* for Access Point object on map can be used only by operator with proper rights. Such rights are defined by assignment of operator to Access User Person with Authorization(s) for control of particular Access Door. Such association of Person and operator is done in the properties of Person in the tab *Remote Management* in the field *Operator*. The most simple method to grant all Authorizations to operator is to assign such operator to Person with Access Credential with enabled *Master exemption* option. More information on this subject is given in AN040 application note.

Camera live view

VISO software enables camera live view in dedicated window. In practical applications it can be used for visual monitoring of premises. The camera view can be static or dynamic. In static mode operator manually selects and arranges camera streams in dedicated window while in dynamic mode the system automatically selects camera stream for central window depending on events occurring in the system.

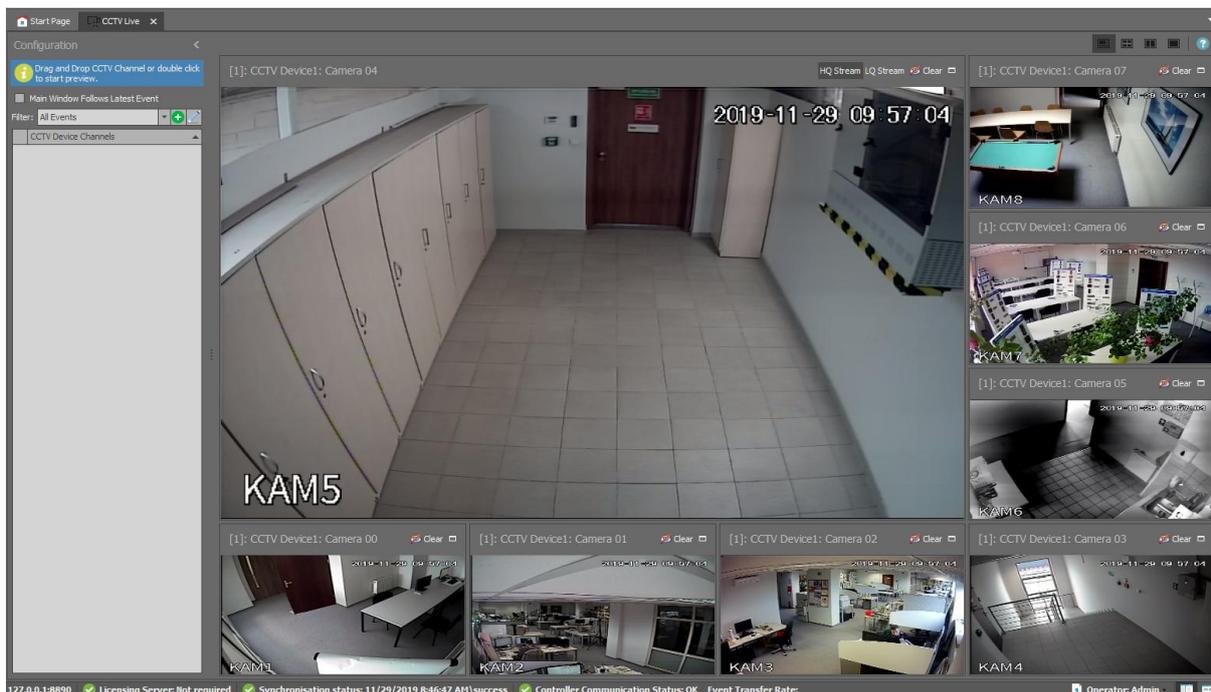
In order to configure camera live view in static mode:

- Configure connections with CCTV devices according to previous sections of this document.
- In the top menu of VISO software select *CCTV* command and then *Live view* icon.

- In the newly opened window drag and drop channels/cameras to the right in order to display video from them.

In order to configure camera live view in dynamic mode:

- Configure connections with CCTV devices according to previous sections of this document.
- Configure one or more Video Links according to previous sections. Links must be associated with Access Doors and not Access Points.
- In the top menu of VISO software select *CCTV* command and then *Live view* icon.
- In the newly opened window enable the option *Main Window Follows Latest Event*.
- Additionally predefined filter can be selected or new filter can be defined with  button in order to limit list of events affecting dynamic camera switching in the main window.
- When event related to Access Door indicated in Video link occurs then adequate camera view is switched and displayed in the central window.



VISO software enables starting multiple Live views at once in individual windows which can be shown on multiple displays. To start multiple views click *Live view* icon multiple times and then drag and drop each tab beyond VISO main window.

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