

# Roger Access Control System 5

Application note no. 025

Document version: Rev. A

## Access Modes

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

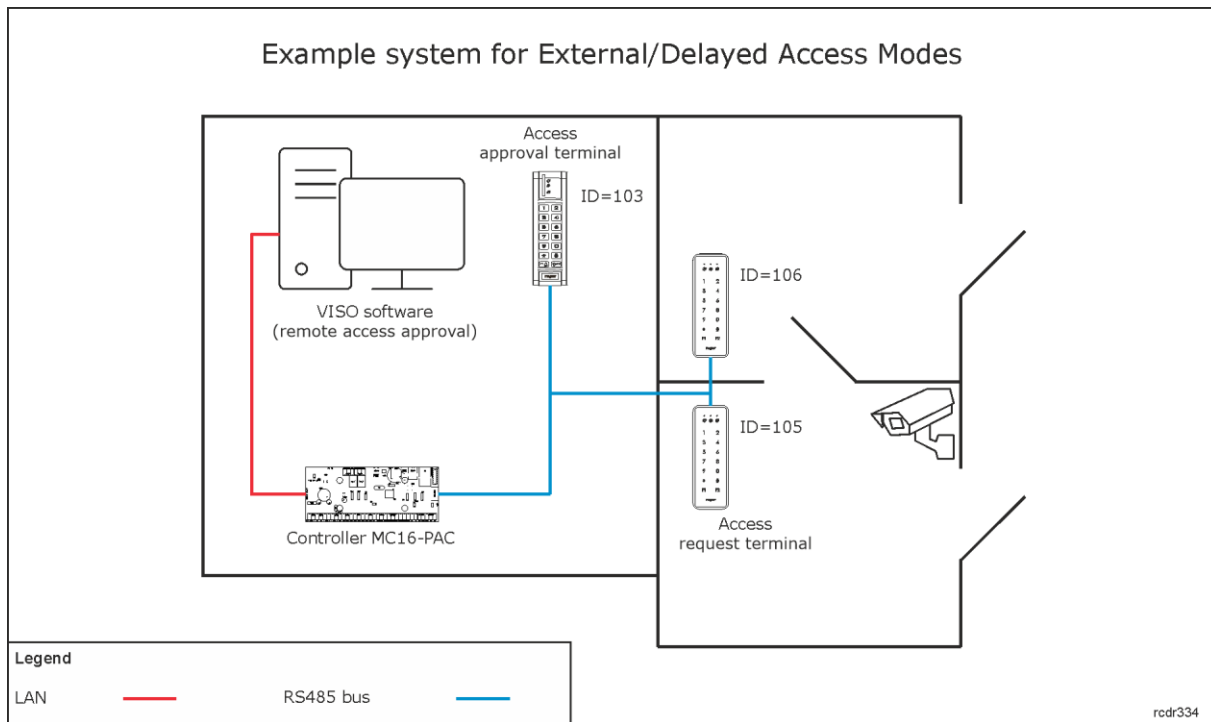
### ***Introduction***

Access Modes can be configured and applied on the level of Access Points (readers) in RACS 5 system. The mode defines how the access request from user is processed in the system.

Available Access Modes:

- Normal Access – access is granted after verification of user Authorisation (access right).
- Positive Access – access granting does not require user Authorisation (access right) so any user defined in the system can be granted access.
- Negative Access – access is denied regardless of user Authorisation (access right) excluding Access Credentials with Master exemption.
- External Access – access requires user Authorisation (access right) and additionally it must be approved with input function [185] or on the level of VISO software.
- Delayed Access – access resulting from user Authorisation (access right) is delayed and then it can be denied with input function [186] or on the level of VISO software.
- Disabled Access – access is denied regardless of user Authorisation (access right) including Access Credentials with Master exemption.

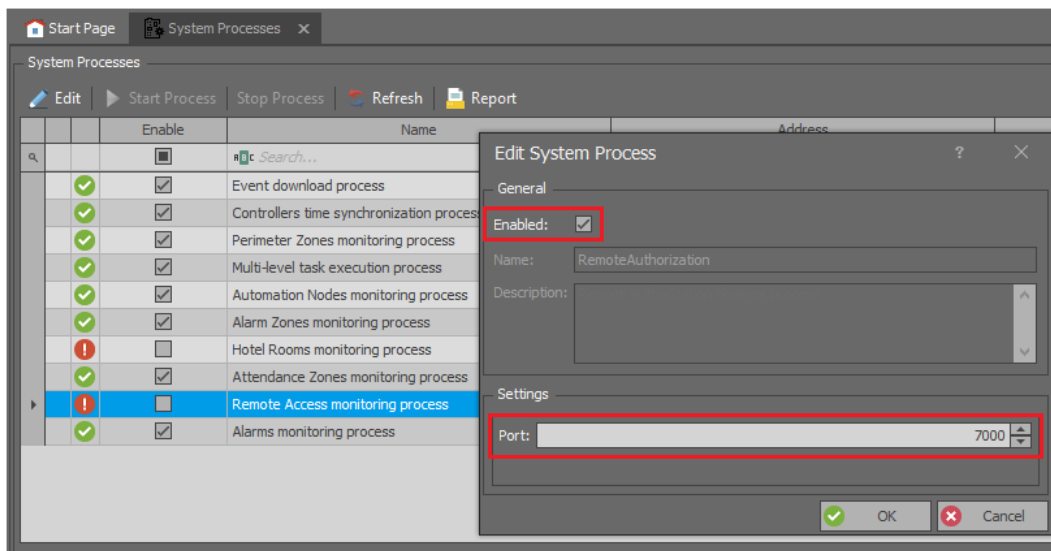
This note is focused on External Access Mode and Delayed Access Mode. Both modes can be applied in military facilities, prisons, detentions, closed hospitals and other objects where some doors in access control system require additional supervision by guard. In such scenario, a guard can approve or deny access requests using terminal, computer with VISO software or even by means of third party software if it is integrated with RACS 5 system based on Integration Server.

**Notes:**

- Power supply in the example can be provided by installation of MC16-PAC-2-KIT or installation of MC16-PAC-2 controller in ME-14-24V metal enclosure.
- The total number of MCT/MCX devices on RS485 bus of particular access controller cannot exceed 16 available addresses in ID=100-115 range. The RS485 addresses of readers in the drawing are exemplary.
- Maximal distance for RS485 bus equals to 1200m and all devices on the bus should have common GND.

***Preliminary configuration***

- Configure RACS 5 system according to AN006 application note in regard of low level configuration, database, services and detection of access controller with its peripheral devices.
- If further explained access approving/denying from VISO software is used then in the top menu of VISO software select *Tools* and then *System Processes*.
- In the opened window right click *Remote Access Monitoring Process* and then *Edit*.
- Start the process and define communication port (7000 by default).



### Additional low level configuration

In case of further explained access approving/denying from VISO software, MC16 controller requires not only typical low level configuration with RogerVDM software but also additional configuration on its memory card.

- Switch off the power supply of MC16 controller.
- Press memory card and remove it from the socket under CR2032 battery on controller board.
- Insert card into standard Flash memory card reader and connect it to computer's USB port.
- Add following exemplary settings to DEBUG.CFG file:

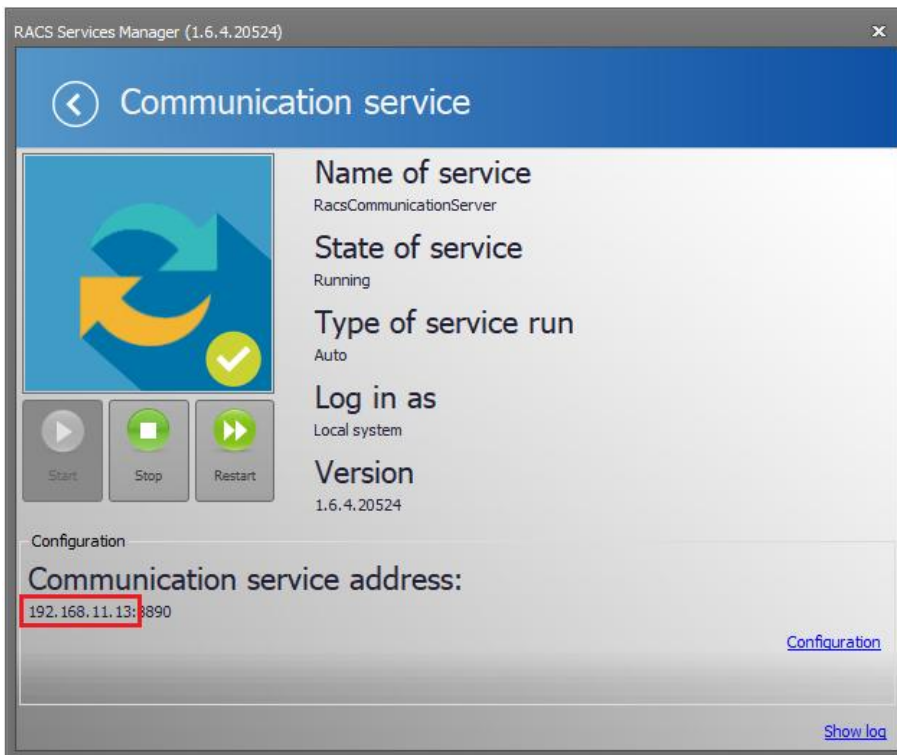
STP=7001  
 VRI=192.168.11.13  
 VRP=7000

where:

STP – any unoccupied UDP port for communication with controller.

VRI – IP address of Communication service from RogerSVC software package.

VRP – UDP port which is configured when previously mentioned Remote Access monitoring process is configured in VISO software.



Note: DEBUG.CFG file must include empty line in the end. Press Enter key at the end of VRP line and then save the file on memory card.

Note: It might be necessary to unblock STP and VRP communication ports in Windows firewall of the server with Communication service.

- Insert the card into controller socket.
- Switch on the power supply of MC16 controller.

## ***Access Door and Access Points***

In order to configure Access Door according to previous example figure:

- In the top menu of VISO software select *Wizards* and then *Add Access Door*.
- Define *Read-in and Read-out* type Access Door with ID=105 and ID=106 readers.
- Add user selecting *Add Person Online*. Assign previously created Authorisations and define Authentication Factor (card, PIN).

**Add Access Door - C1**

**Access Door configuration**  
Specify hardware configuration parameters for the newly created Access Door.

**Step**

- ✓ Access Door type
- ✓ Access Door configuration
- ✓ Read-in Authorisation creating
- ✓ Read-out Authorisation creating
- ✓ Data saving
- ✓ Synchronisation

**General**

Name: C1\_Door1

Description:

**Wiring template**

☐ Use device wiring template

Device wiring template: View wiring template

**Hardware configuration**

Read-in Access Terminal: MCT84M v1.x\_192.168.21.166\_105\_CDI1

Read-out Access Terminal: MCT84M v1.x\_192.168.21.166\_106\_CDI1

Lock Pulse [s]: 2

Door Lock Output: MC16 v1.6\_192.168.21.166\_0\_REL1

Door Bell Output: None

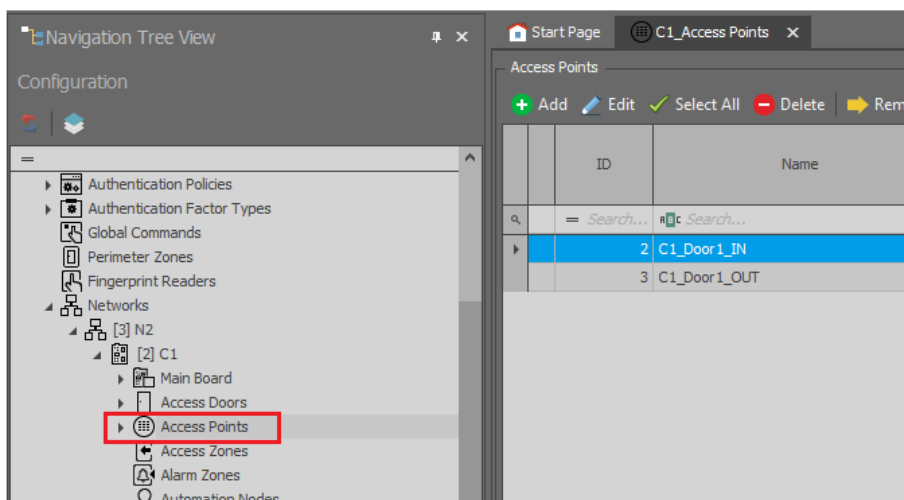
Door Alarm Output: None

Door Contact Input: MC16 v1.6\_192.168.21.166\_0\_IN1A input

Exit Button Input: None

Back Next Cancel

- When configuration with wizard is finished then expand controller in VISO navigation tree and double click *Access Points*.



- In the opened window select previously created Access Point *C1\_Door1\_IN* with ID=105 reader and then *Edit*.
- In the opened window in *Access Modes* tab select External Access or Delayed Access. Optionally waiting time for both modes can be configured. Close the window with *OK* button.

Dialog box: Edit Access Point

General

ID: 2

Name: C1\_Door1\_IN

LCD Message:

Keypad Shortcut: No shortcut

Description:

Authentication Access Modes Zone Options T&A Options Advanced Options

Default Access Mode: External Access

External Access Time [s]: 15

Delayed Access Time [s]: 15

- In the same window with Access Points select *Add* to create Access Point to be operated as access approving terminal. Name the point and close the window with *OK* button.

Dialog box: Add Access Point

General

Name: C1\_Access approval point

LCD Message:

Keypad Shortcut: No shortcut

Description:

Authentication Access Modes Zone Options T&A Options Advanced Options

Default Authentication Policy: Any

Authentication Policy Schedule: None

Failed Attempts Time [s]: None

Failed Attempts Limit: 0

Failed Attempts Blocking Time [min]: None

OK Cancel

- In the bottom select *Access Terminals* tab, then *Add* and in the opened window select ID=103 reader according to previous example figure.

**Add Access Terminal**

**General**

Name: C1\_103\_CDI1

Description:

**Object**

Object: MCT12M v1.0\_192.168.21.166\_103\_CDI1

Device: MCT12M v1.0

Name: CDI1

Comment:

IP Address: 192.168.21.166

RS Address: 103

Hardware Version: 1.0

Firmware Version: 1.1.1.136

OK Cancel

### Access approving/denying from device

There are a few methods to accept or deny access request from user who identifies at Access Point. It can be done with card reading, PIN entered with reader's keypad, button connected to input of controller/reader/expander and with function key on reader's keypad. In case of input and function key, user identification (card, PIN) and verification of user Authorisations for access request approving can be required.

#### Authentication Factor (card, PIN)

- In the window with Access Points select *C1\_Access approval point* i.e. point with ID=103 reader where access request will be approved/denied.
- In the bottom select *Authentication Options* tab and then *Edit*.
- Depending on previously selected Access Mode, in the opened window select the function [185]: *Grant Access for External Access Mode* or the function [186]: *Deny Access for Delayed Access Mode*.
- In the field *Object* select *C1\_Door1\_IN* i.e. point with ID=105 reader where access will be requested.

**Authentication Options**

Normal Authentication Special Authentication Double Authentication Card Inserted into Holder

Action Type: Function

Action: [185]: Grant Access for External Access Mode

Parameter: None

Object: [2]: C1\_Door1\_IN


Register event: ☒

Authorisation Options

Interactive Options


OK Cancel

### Function key without user verification

- In the window with Access Points select *C1\_Door1\_IN* i.e. point with ID=105 reader where access will be requested.
- In the bottom select *Function keys* tab and then *Add*.
- In the opened window select the button  to indicate the location of function key.
- In the next window, in the *Name* field of *Object* area select terminal with function key (ID=103), then indicate particular key code e.g. F1 and close the window with *OK* button.
- Depending on previously selected Access Mode, in the opened window select the function [185]: *Grant Access for External Access Mode* or the function [186]: *Deny Access for Delayed Access Mode*.
- Upload settings to controller.

Similarly an input line for access approving/denying can be defined by selection of *Inputs* tab.

### Function key with user verification

- In the window with Access Points select *C1\_Door1\_IN* i.e. point with ID=105 reader where access will be requested.
- In the bottom select *Function keys* tab and then *Add*.
- In the opened window select the button  to indicate the location of function key.
- In the next window, in the *Name* field of *Object* area select terminal with function key (ID=103), then indicate particular key code e.g. F1 and close the window with *OK* button.
- In the same window expand *Additional Options* area and select Access Point where the use of function key will have to be verified. This can be Access Point with the same reader where function key is located or any other Access Point with reader connected to the same MC16 access controller. Close the window with *OK* button.



**Add Function Key**

**General**

Name: C1\_103\_KBD1\_F[1]\_Short Press

Description:

**Object**

Name: MCT12M v1.0\_192.168.21.166\_103\_KBD1

Key Code: F[1]

Device: MCT12M v1.0

Label: KBD1

Comment:

Type: KBD/[15007829]: E50055

IP Address: 192.168.21.166

RS Address: 103

**Additional Options**

Activity Schedule: Always

Authentication Point: C1\_Access approval point

Multifunction: ☐

Function Limit: 1

Key Press Type: Short Press

**Events**

OK Cancel

- Depending on previously selected Access Mode, in the opened window select the function [185]: Grant Access for External Access Mode or the function [186]: Deny Access for Delayed Access Mode. Additionally select options *Authorisation for Access Point required* and *Authorisation for Object required*. Close the window with OK button.

**Add Function Key**

**General**

Function Key: C1\_103\_KBD1\_F[1]\_Short Press

Function: [185]: Grant Access for External Access Mode

Parameter: None

Register event: ☒

Logic Function: None

**Authorisation Options**

User authentication required: ☒

Authorisation for Access Point required: ☒

Authorisation for Object required: ☒

Authorisation for Function Parameter required: ☐

OK Cancel

Similarly an input line for access approving/denying can be defined by selection of *Inputs* tab.

## Authorisation

In case of access approving/denying with Authentication Factor (card, PIN) or with function key including user verification it is necessary to define Authorisation for the user who could approve/deny the access. It must be Advanced Authorisation for function [185] or [186] depending on previously selected Access Mode. In order to define such Authorisation:

- In the navigation tree of VISO software expand *Authorisations* command, double click *Advanced Authorisations* and in the opened window select *Add* button.
- Depending on previously selected Access Mode, in the opened window select the function [185]: *Grant Access for External Access Mode* or the function [186]: *Deny Access for Delayed Access Mode*.

- In the bottom select *Positive Rules* tab and then *Add* button.
- In the opened window optionally select *Specified as Time Range* and assign one of available schedule if the Authorisation is supposed to be limited by time. Own *General Purpose Maintained Type* schedule can be defined with *Schedule* command in VISO navigation tree.
- In the same window select *Specified as Range* and then assign Access Point *C1\_Door1\_IN* Access Point i.e. point with ID=105 reader where access will be requested.

- Upload settings to controller.

- Assign new Authorisations to user(s) using *Add Person Online* or *Edit Person Online* wizard which is available when *Wizard* command is selected in the top menu of VISO software.

More information on Authorisations is given in AN003 application note.

## Access approving/denying from software

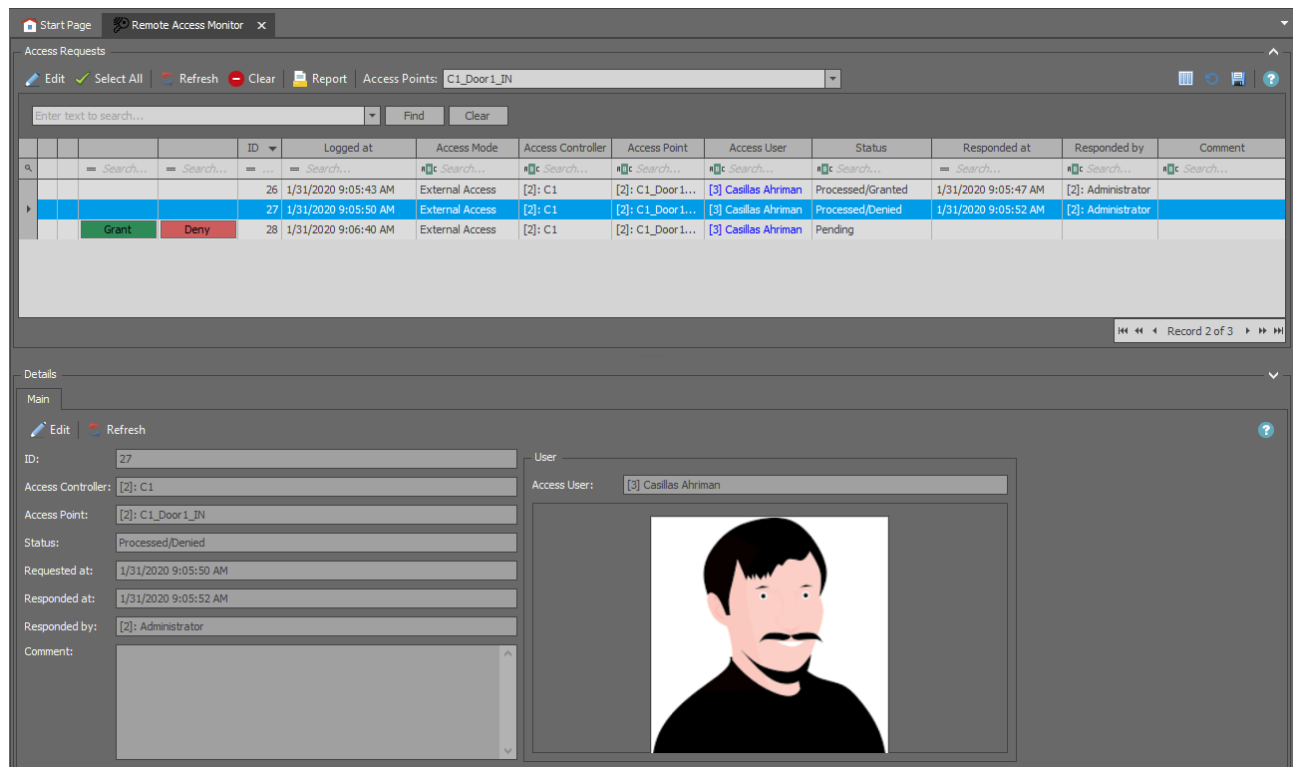
VISO software operator can remotely approve or deny access request from users. Additionally, CCTV cameras can be applied in one of the monitors if they are integrated with RACS 5 system. More information on CCTV integration in RACS 5 system is given in AN007 application note.

### Remote Access Monitor

The monitor can be started by selection of *Remote Access* in the top menu of VISO software and then *Remote Access Monitor*.

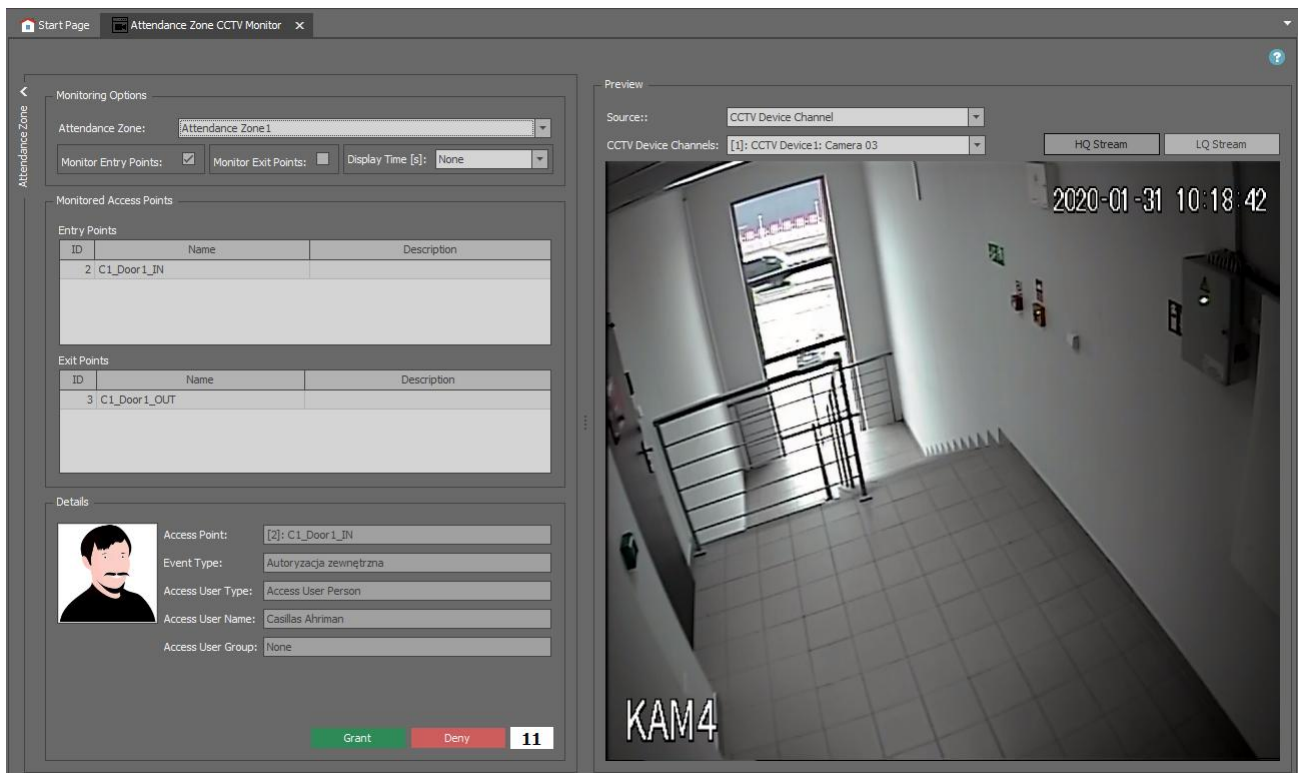
The monitor enables to:

- Indicate which Access Points with External or Delayed Access Modes are monitored.
- Remotely grant or deny access for user at Access Point.
- Display personal details of requesting users including photo if previously assigned to the user.
- Filter, sort and clear the list with access requests.



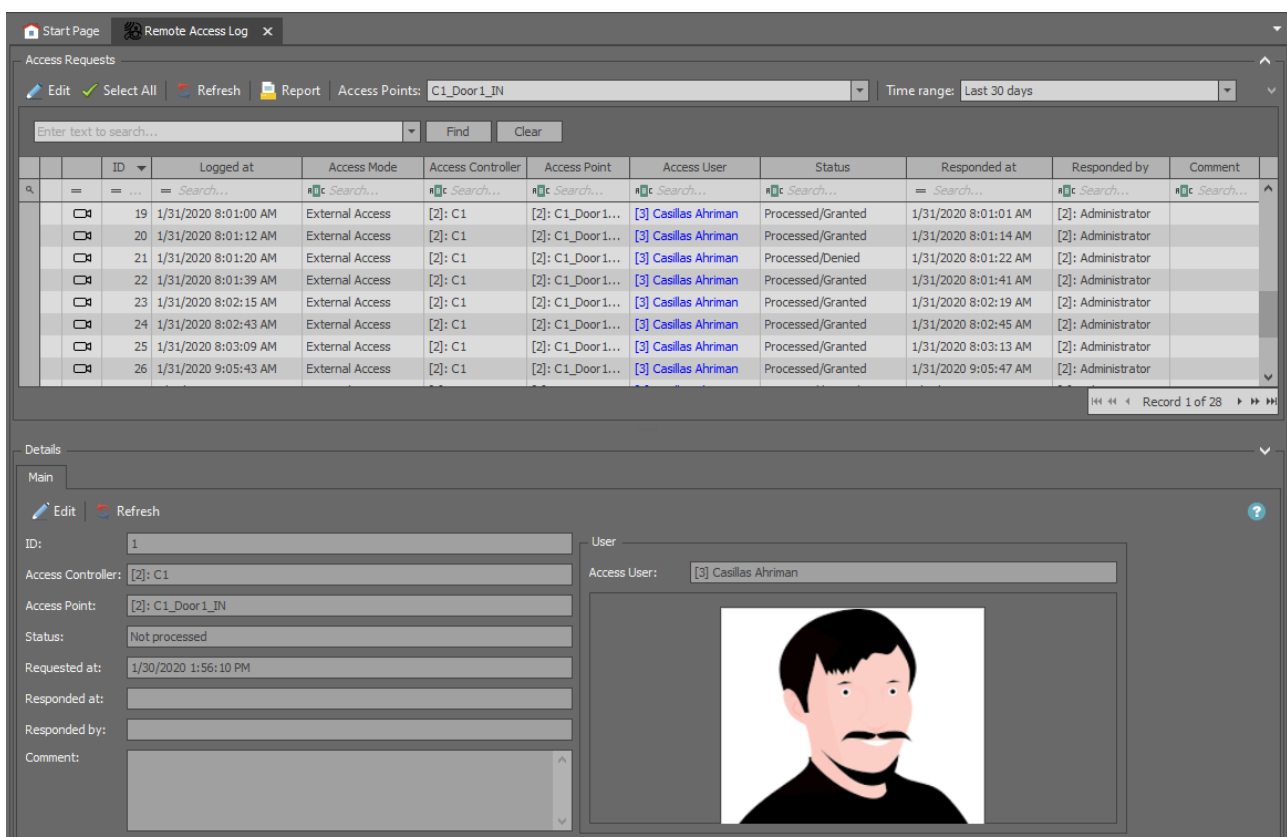
### Attendance Zone CCTV Monitor

The monitor which is described in AN007 application note enables to monitor users who identify at selected Access Points. The monitor can not only display user personal data including photo but it can also automatically display video from a camera which is associated with the Access Point. If the External Access Mode or Delayed Access Mode is selected for such Access Point then buttons for remote access granting and denying are available.



## Remote Access Log

The log can be started by selection of *Remote Access* in the top menu of VISO software and then *Remote Access Log*. The log displays access request including information on users and operators.



## **Remote Access Operators**

RACS 5 system can be managed from multiple workstation by operators with access to various parts of VISO software. It is possible to define Role for Operator that would allow only manage monitors with remote access. More information on Operators and Roles is given in AN040 application note.

## ***Access Mode switching and signalling***

Default Access Mode is defined on the level of Access Point. It is also possible to switch current Access Mode to another one using input functions [177] – [184], which can be started with card, PIN, input or function key. Additionally, current Access Mode can be signalled with output function [80] – [85] and waiting status for External and Delayed Access Modes can be signalled with output function [86]. This function can be assigned to LED or buzzer at a reader or to any external signalling device using relay or transistor output of RACS 5 device.

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