



APS Administrator

APS systems administration software package

User's Guide



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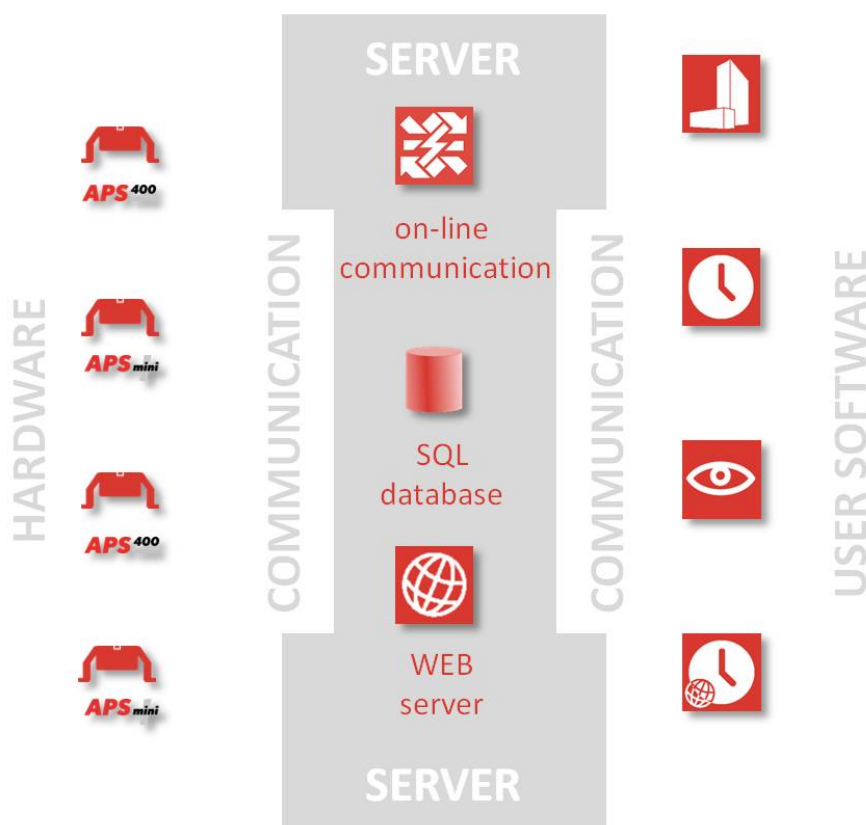
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2. Product Description

2.1. System components

APS Administrator software package is designed in *Client / Server* architecture (pic. 2.1). It contains all essential programs for standard operation and a comfortable usage of APS 400 access control system with up to 16 system controllers and in effect with unlimited number of APS mini and APS mini Plus system communication lines:

- *APS Server* ... communication server for a host PC and MCA 168 controllers' online communication, or APS mini Plus system readers communication.
- *APS Administrator* ... system administration and access rights management.
- *Log View* ... administration software log viewer.
- *Events View* ... access control system events archive viewer.
- *Events Online* ... access control system events online viewer.
- *APS Reporter* ... program for creating user data sets from database data.
- *Card print designer* ... program for creating prints on cards.
- *MS SQL Server* is used for data storage.
- In case of web extensions usage, *Microsoft Internet Information Services* version 5 or higher HTTP server is recommended (it is a part of OS) as a web server. Other web servers supporting *APS.NET* technology might be used as well.



Pic. 2.1: Structure of the APS Administrator solution

Note 1: Some parts of APS Administrator software package are compatible only with specific APS system type. These are designated by ¹⁾.

Note 2: If any product doesn't contain link to appropriate manual, you'll find all necessary information in this manual.

Note 3: The owners' license conditions for third party software products are valid.

Note 4: Detailed information about installation of the APS Administrator for all

TECHFASS systems can be found in section Step by step guide:

http://office.techfass.cz/support/Documentation.aspx?PagelId=12#DocumentType_17.

2.2. System hardware and OS requirements

Requirements for the server hardware equipment and client computers are proportional to the overall load of the system. Consult your regional dealer for an advice with choosing suitable HW and OS! Recommended operating system is *MS Windows 10 / 11*. Product functionality on older operating systems is not guaranteed. Microsoft *.NET Framework 4.6.1* is required to use the program.

2.3. Extending software modules

Specific *APS 400* and *APS mini Plus* system applications (e.g. time & attendance, registration of visitors, shared overviews and calendars, etc.) may require installation of extension software modules. These modules extend mostly the APS400nAdministrator basic functionality. Extension modules are fully integrated into the basic software package from this point of view and they do not require separate administration.

Note: More information about extension modules can be found at the TECHFASS website: <http://office.techfass.cz/support/Default.aspx?PagelId=73>.

3. Program configuration

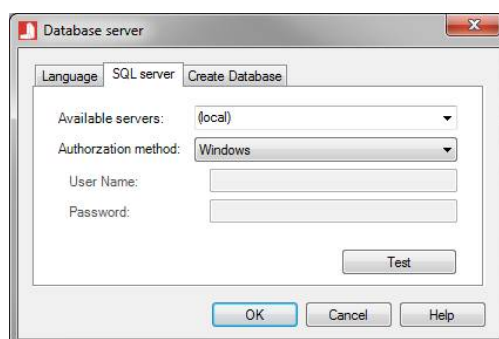
3.1. APS Administrator program installation and first run

The *APS Administrator* program installer can be downloaded from <http://www.techfass.com/en/Catalogue/Product/391>

During the program installation, select either *Standard* or *Complete* installation (the complete installation contains the time & attendance module *APS T&A*, which requires an additional license).

Run the program after installation and select the proper language option in the displayed dialog. Dialog cloud be in Czech language.

Create the database with following procedure (pic. 3.1):



Pic. 3.1: Program first run

- Fill in the *SQL server connection alias* in the *Available servers* field (typically *(local)*) at the *SQL server* tab.
- Go to the *Create database* tab.
- Choose *Create*, the database will be created.

In the following login dialog, enter following default administrator's account access credentials to access the APS Administrator program:

- Login name: *Administrator*
- Password: *admin*

The personal card of the administrator's account (Administrator) is saved in the root folder of the organizational folder tree.

There should be at least 1 available administration account in the database at all times.

3.2. Organizational structure of the system

The organizational tree, placed in the left part of the main application window, can be used for system structure definition (*pic. 3.2*). The users' personal cards can be assigned to particular organizational folders. If there is a module for visitors' registration (*APS Administrator.Vis*) operated in the system, it is recommended to create a separate organizational folder for visitors' personal cards.

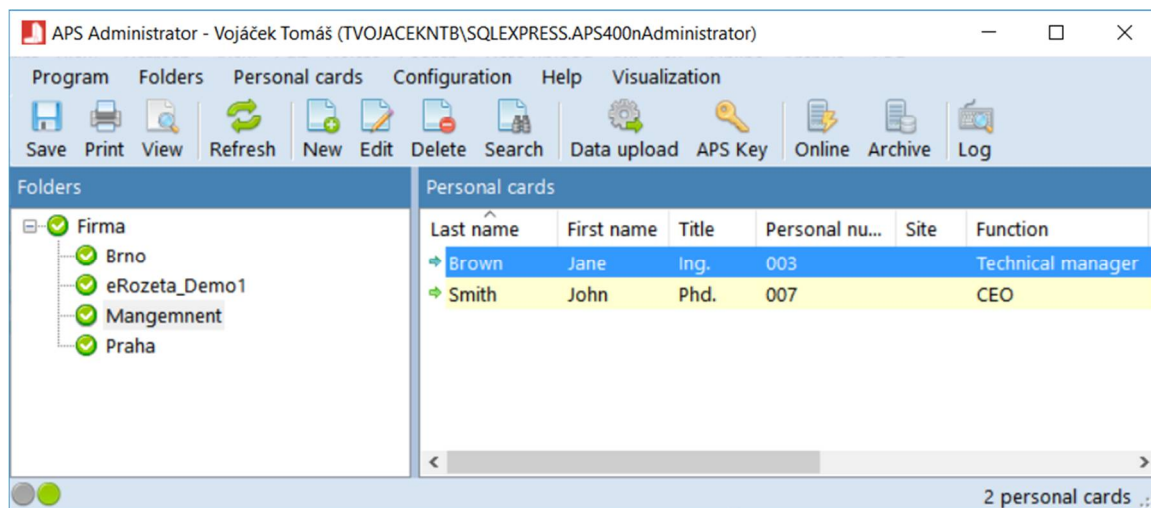


Fig. 3.2: Main application window

3.3. Access rights model

Any user's access right within each system is defined by one of 128 *access groups*. Every access group defines the set of access levels assigned to each system access point reader. Each access level can go up in value "*access granted*", "*access denied*" or "*access by a time zone*" (*pic. 3.3*). In addition an *authorization flag*¹⁾ can be set for access levels "granted" and "by a time zone". Its meaning depends on individual controller programming. It can be used e.g. in integrated applications as authorization flag for alarm system control. The authorization flag is ignored in APS mini Plus systems.



Pic. 3.3: Simplified model of access rights

Note: The access right model (*pic. 3.3*) is simplified for this manual needs. The detailed description of the access rights model for programmers is available on request.

3.4. Access rights model with local administrators of system parts

This model enables to define *local administrators of system parts*. It is suitable when the system is shared by several companies in the building, where there is not possible or appropriate to use the central management model.

The basic idea is a link between the reader modules (access groups), organizational folders, users stored in those folders and users with access to those folders.

3.5. Organizational folders

Working with folders in the organizational tree is similar to working with Windows folders. Commands for creating, editing, or deleting folders are located in the *Folders* menu of the main application window and in local the menu of organizational tree.

Folder *Properties* are available in the local folder menu.

3.5.1. General properties

At the *General* tab, it is possible to change the general properties of the folder and search for ID media, which were not used for defined time.

You can change the folder *Name*, and if the users saved in the folder should be *displayed in the APS Administrator.OPN web overview* (APS Administrator.OPN extension is no longer supported).

The *Folder for visitor personal card* can be set directly in the *APS Administrator.VIS* visitor management module, in this dialog it is displayed only as information.

If you want to exclude the folder from processing in *APS T&A* program extension, select the *Exclude from T&A processing* option. Processed folder are displayed with green icon in the folders tree, excluded folders are displayed with grey icon. If the user does not have permission to work with the folder, it is indicated with a red icon of the folder. Similarly it is possible to *exclude the users assigned to the folder from the lots drawing* (for detailed information about the lots drawing see a separate chapter).

To search for unused ID media, select the *date*, after which the ID media was not used, and select, whether you want to search in *subfolders* as well. Press the *Search* button then. The search operation can take a few minutes depending on database size and number of users in selected folders.

After the *result dialog* is displayed, there are ID media distinguished with a colored mark: green mark means inactive ID media, whose cardholder possesses other active ID media; red mark means inactive ID media, whose cardholder possesses no active ID media; active ID media are not displayed in the list. Select required action in the upper left corner, which will be performed on selected ID media, select appropriate ID media and press the *OK* button. The action will be performed.

The *Presence flags delete* option is used to reset all presence flags of the persons located in the selected folder (presence of the person in an area for *Antipassback* evaluation function). If you want to include all subfolder to the delete command, select the Include subfolders option. After pressing the *Delete* button, the command is executed.

3.5.2. Company

At the **Company** tab, it is possible to select, if the folder represents a company for the purpose of further working with the folder (**Folder of company** checkbox).

Consequently, it is possible to enter following text descriptions of company properties: **Name**, **Branch**, **Field of activity**, **ID**, **VAT**, **Country**, **City**, **Street**, **Postal code**, **Note**.

3.5.3. Authorized users

At the **Authorized users** tab, it is possible to grant rights to the users to work with the organizational folder and its content. Any user, which has at least one right bound to the organizational folders assigned, can be authorized to work with the folder. The rights bound to the organizational folders are applied on all folders, which are accessible for the user then.

3.5.4. Access groups

At the **Access groups** tab, it is possible to assign access groups to the folder. Only those access groups can be assigned to users by the folder administrators, if they have the relevant privilege.

3.5.5. Time zones

At the **Time zones** tab it is possible to assign time zones to the folder. Those are the time zones, which can be edited by the folder administrators, if they have the relevant privilege.

3.5.1. APS Key

Choose the type of access cards which are contained in the folder for the correct functionality of **APS Key**. If **APS Key** is not used ignore this setting.

3.5.2. Activities

The **Activities** tab is meaningful only when using the EHS system. Adding an activity is available after basic configuration of EHS system (described lower in the manual).

At this tab it is possible to assign a list of activities, which can be performed by a contractor (represented by the folder).

3.6. System events

A number of events occur during the system operation. These events are stored in a system archive and can be analyzed later, whenever it is required. To each system event is associated following information:

- *I* – events archive contains an image / images associated with the event,
- *P* – events archive contains an user configuration assigned to the event,
- event *Date*,
- event *Time*,
- *System* – identification of the system,
- *Module* – identification of the system module (any hardware component - a reader module, a controller, etc.),
- *Event* – identification of the system event (switching an input, ID reading, etc.).
- *User* – identification of the personal card to which has been assigned the read ID at the moment of event storage into the database (if it is worth in the event),
- *Card* – read ID (if it is worth in the event),
- *Flag* – event flag (e.g., key code pressed on the attendance keypad, if it is worth in the event),
- *Note* – user assigned note to the event,
- *Alert* – according to the alert settings for specific event,
- *Function, Workplace, Folder* – additional information from the personal card.

A message can be assigned to each event and consecutively displayed on clients' PC at the moment of saving an event to the archive. The messages configuration can be made in administration software and their display can be ensured either by *Events online* program module, eventually other online programs.

3.7. System configuration

It is necessary to create a configuration files by *APS 400 Config* software (the configuration file is created during the compilation of the controller program) for *APS 400 systems* and set up APS mini Plus reader modules with *APS Reader* program for *APS mini Plus systems* before starting the system configuration itself. Because the system parameters setting are bound to the hardware equipment and controller programming, it is recommended to entrust this setting to your service organization.

The system configuration can be made only by a user with *administrator* authentication. The configuration dialog *System Configuration* (pics 3.4 – 3.10) can be displayed by *System* command from *Configuration* menu of the main application window.

In the lower part there is a link called *Copy protocol to clipboard*. If it is used, operational data of the application is copied into clipboard; these data are commonly required by the technical support when solving technical difficulties.

3.7.1. Connection tab

The **Connection** tab (pic. 3.4) contains text boxes for setting **APS Server** connection parameters as follows:

- IP address
- IP port

Pic. 3.4: Connection

Note: The default IP address is set to **127.0.0.1** value after program setup – the connection can work at the server only. To enable the clients' connection, it is necessary to set the IP address of server network connection.

Under these parameters there is information about the communication server **Service status**. If the communication server is not installed and is not running as a system service, the information is not available.

Server status shows other information about the APS server: the communication status (online/offline), server version and supported DB version. The information is being refreshed when the APS Server communication is running. If you use an older version of APS Server, it is necessary to upgrade it and run the communication again, in order to refresh the information in APS Administrator as well.

The other options are related the **APS400nAdministrator database** and the used **SQL Server** properties.

The **SQL Server** item shows used connection string for SQL Server connection.

The **details** show the SQL Server version, available authentication methods, last backup date and database file size.

In the **Users** option you can add, renew or remove access rights for the APS400nAdministrator database for local and domain Windows accounts. When creating a new user, fill in the domain or computer name in the **Domain / computer** field, and enter the Windows login name in both **Login name** and **Database name** fields.

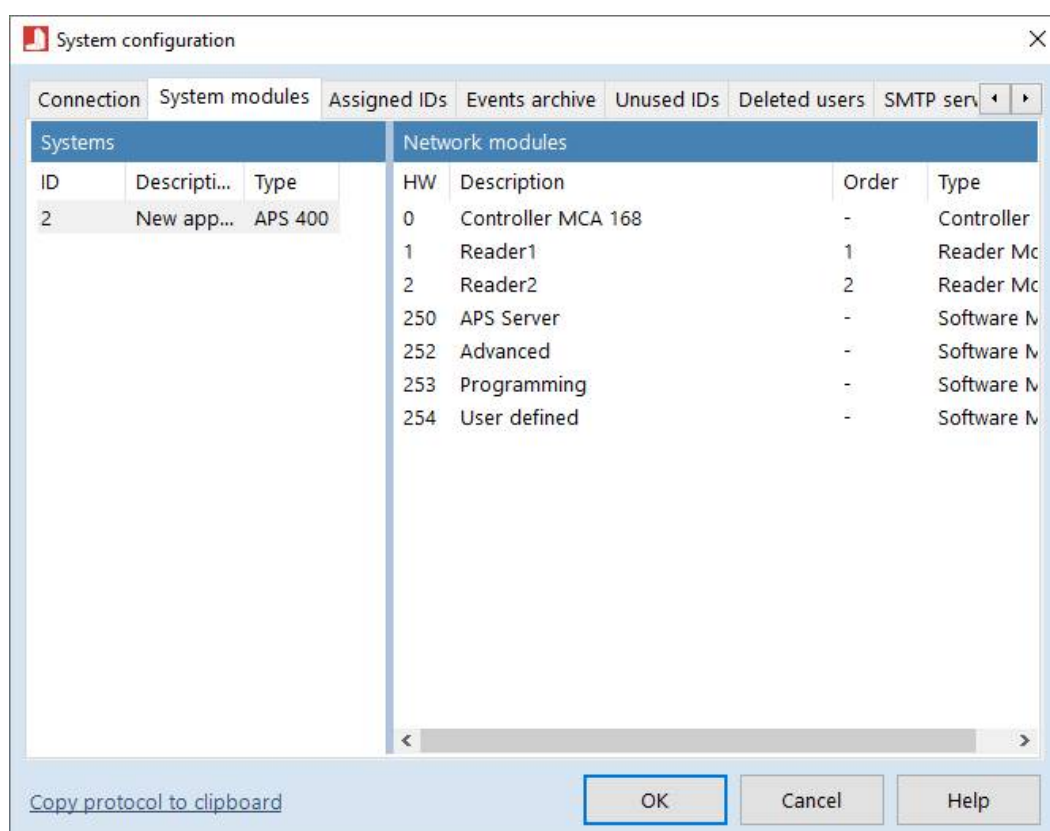
The **Upgrade** button is used to upgrade the structure of **APS400nAdministrator** database. The button is enabled when the database structure version is lower, than the version program supports. Performing the database structure upgrade cannot lead to any data loss, but we still recommend to perform database **backup** before running the upgrade. After performing the upgrade, new functions of the programs using the APS400nAdministrator database are usually available.

The **Backup** button can be used to save database backup in selected location. The backup file location is related to the computer running the SQL server service. If the filename only is entered as **Path to backup file**, the backup will be saved in the default backup folder, e.g.: **C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Backup**.

The **Backup reminder** frequency can be set to one of the displayed values, or it can be set manually by entering a numeric value (in days). We recommend to perform the database backup operation as often as possible.

3.7.2. System modules tab

System modules tab contains a list of connected systems in the left part and a list of connected network modules in the right one (pic. 3.5).

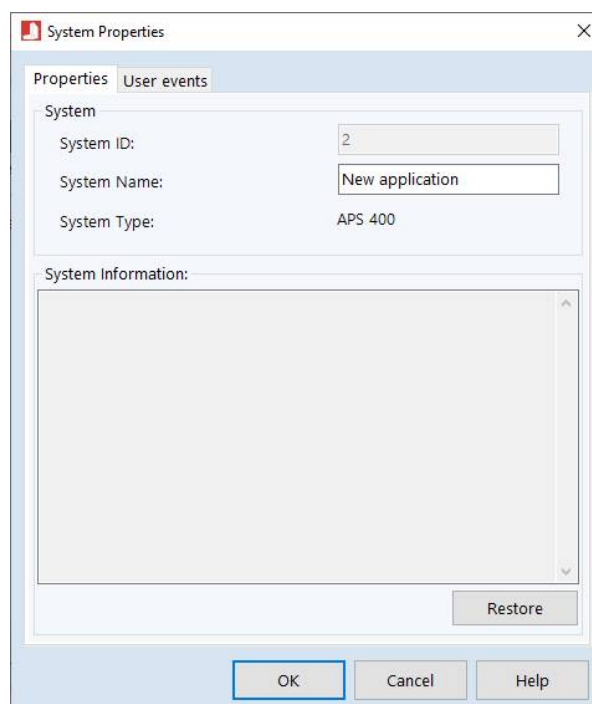


Pic. 3.5: System modules

APS 400 systems

To add a new system, it is necessary to use a configuration file created in *APS 400 Config* program (the configuration file is created when compiling program for the system controller). To import the file, select *APS 400 > Load configuration file*, which is available from the context menu raised in the *Systems* area at the *System Modules* tab. If the system is already present in the database, a dialog appears, which enables to select, whether new descriptions of modules should be updated from the source file.

Particular system and user event names, which will be represented in the *iPanel* menu, can be edited. The configuration dialog *System properties* can be displayed by the *Property* command, which is accessible from the local menu of the list of systems. Basic system information stored in the controller memory is displayed by clicking the *Restore* button (pic. 3.6).



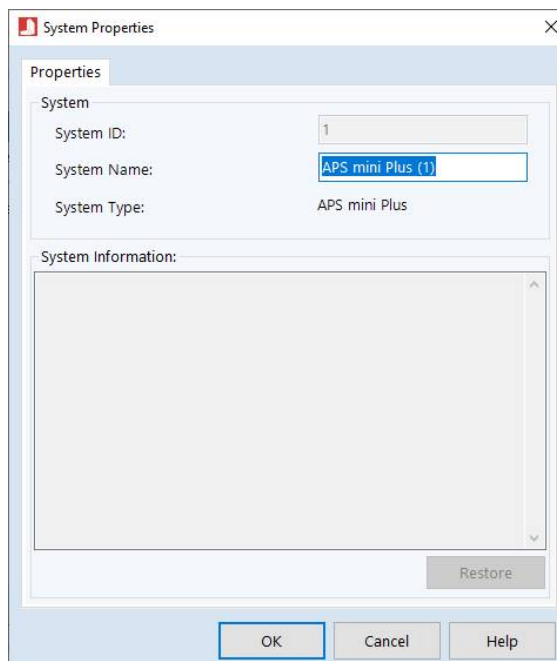
Pic. 3.6: APS 400 system properties

APS mini Plus systems

APS mini (Plus) system configuration is typically inserted with an automated process based on HW configuration created in APS Server.

To add *APS mini Plus* system(s) configuration automatically, select *APS mini Plus > Load from nServer Configuration*. The command is available in the context menu raised in the *Systems* area at the *System modules* tab in the *System configuration* dialog. This command will copy the *APS mini Plus* system structure *from the APS Server* program configuration *into database*.

To add APS mini Plus systems configuration manually, select **APS mini Plus** > **New system** in the context menu. It is necessary to enter a unique ID of the system (pic. 3.7).



The 'System Properties' dialog box is shown with the 'Properties' tab selected. It contains the following fields:

- System ID:** A text box containing the value '1'.
- System Name:** A text box containing the value 'APS mini Plus (1)'.
- System Type:** A dropdown menu set to 'APS mini Plus'.
- System Information:** A large empty text area.

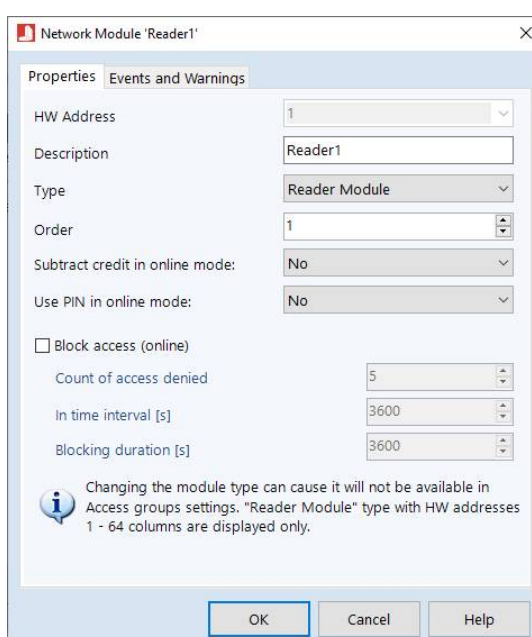
At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'. A 'Restore' button is located at the bottom right of the 'System Information' area.

Pic. 3.7: APS mini Plus system properties

Additionally, it is necessary to enter all reader modules of APS mini Plus system by selecting **New** in a context menu displayed after right clicking in the list of network modules when the desired APS mini Plus system is selected.

Network modules

The name, type (set automatically during the upload), events archive marks (pic. 3.8) can be edited by pressing the **Edit** button.



The 'Network Module 'Reader1'' dialog box is shown with the 'Properties' tab selected. It contains the following fields:

- HW Address:** A dropdown menu set to '1'.
- Description:** A text box containing the value 'Reader1'.
- Type:** A dropdown menu set to 'Reader Module'.
- Order:** A dropdown menu set to '1'.
- Subtract credit in online mode:** A dropdown menu set to 'No'.
- Use PIN in online mode:** A dropdown menu set to 'No'.
- Block access (online):** An unchecked checkbox.
- Count of access denied:** A text box containing the value '5'.
- In time interval [s]:** A text box containing the value '3600'.
- Blocking duration [s]:** A text box containing the value '3600'.

At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'. A small information icon is located at the bottom left of the dialog.

Changing the module type can cause it will not be available in Access groups settings. "Reader Module" type with HW addresses 1 - 64 columns are displayed only.

Pic. 3.8: Network module properties

The setting of the module type influences displaying of access groups setting dialog (only *Reader module* type displays the column for access level setting).

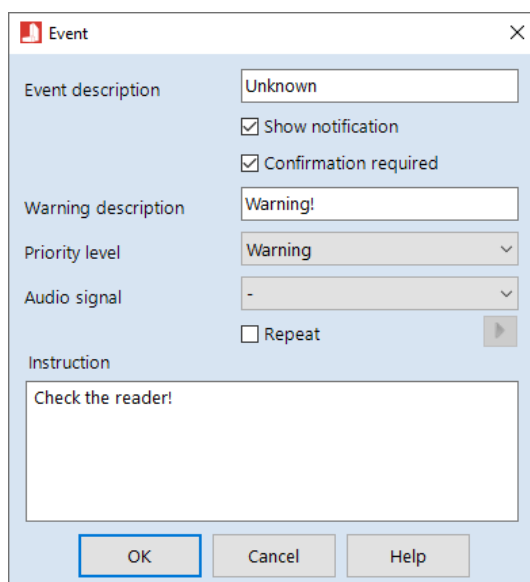
Next setting at the *Properties* tab affects the function in *online* mode. These setting have no influence on the offline operating mode.

By selecting *Subtract credit in online mode* option it is possible to set, that the reader will be used in the credit using extension, and the credit will be required for valid identification at the reader.

Another option is *Use PIN in online mode* – this selection sets, if the PIN code entering is required in online operating mode for valid identification.

Last option is used to *Block access (online)* – by this setting it is possible to set, that the user access will be blocked for selected time after selected number of invalid identification events within selected time period.

The *Events and Warnings* tab contains a list of events, that can occur at the reader. Each event can have defined following properties, that affect its display in other programs (*pic. 3.9*).

The image shows a software dialog box titled "Event" with a close button (X) in the top right corner. The dialog is divided into several sections. The "Event description" section has a text box containing "Unknown". Below it are two checked checkboxes: "Show notification" and "Confirmation required". The "Warning description" section has a text box containing "Warning!". The "Priority level" section has a dropdown menu currently set to "Warning". The "Audio signal" section has a dropdown menu currently set to "-". Below these is a "Repeat" checkbox which is unchecked, followed by a right-pointing arrow button. The "Instruction" section has a large text box containing the text "Check the reader!". At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

Pic. 3.9: Event properties

You can define the name (description) of the event, whether an alert message should be displayed in selected extension programs, if such event requires confirmation by the program operator, displayed warning text and instructions.

The priority level defines, which color will be used to display the event:

- Not used – without notice.
- Information – blue background.
- Warning – yellow background.
- Alert – red background.

Another option is to select an audio signal from a library of inserted audio signals and to select, if this sound should be played until the time the event is confirmed by the program operator.

Copying and setting the events and assigned messages

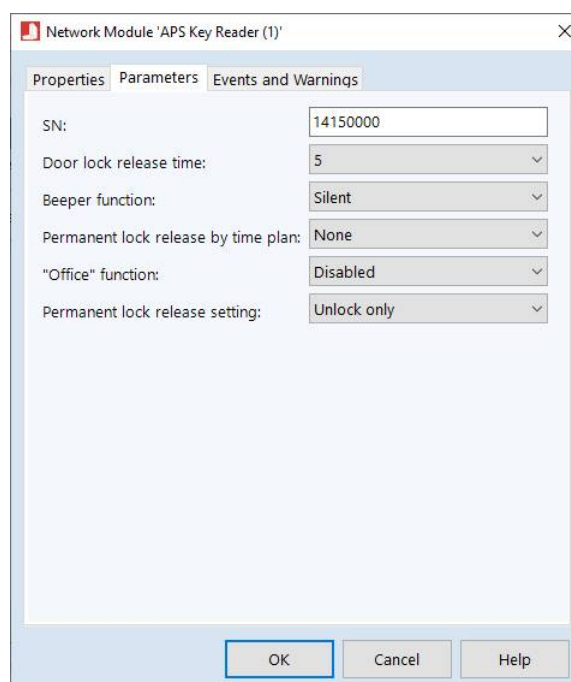
Setting of the events descriptions and assigned messages can be copied among the system modules using clipboard (*Copy* and *Insert* local menu commands). It is possible to choose which settings of target module have to be overwritten (events descriptions, messages setting, or both).

iPanel

The *iPanel* folder creating command is accessible from the local menu of the list of APS 400 systems. The *iPanel* software is not supported yet. It has been replaced by equivalent functions of the modern APS Web Panel extension.

APS Key

The *APS Key* system and individual modules are to be added manually. To add a system right click to the field *Systems* and choose *APS Key>New system* in the context menu. To add a module right click to the field *Network modules* and choose *New...* (pic. 3.10) in the context menu. In *Properties* let the *HW address* as it is, name the reader in *Description* and choose the *Order* in which the readers will be displayed in *Access rights editor*.



Pic. 3.10: APS Key module properties

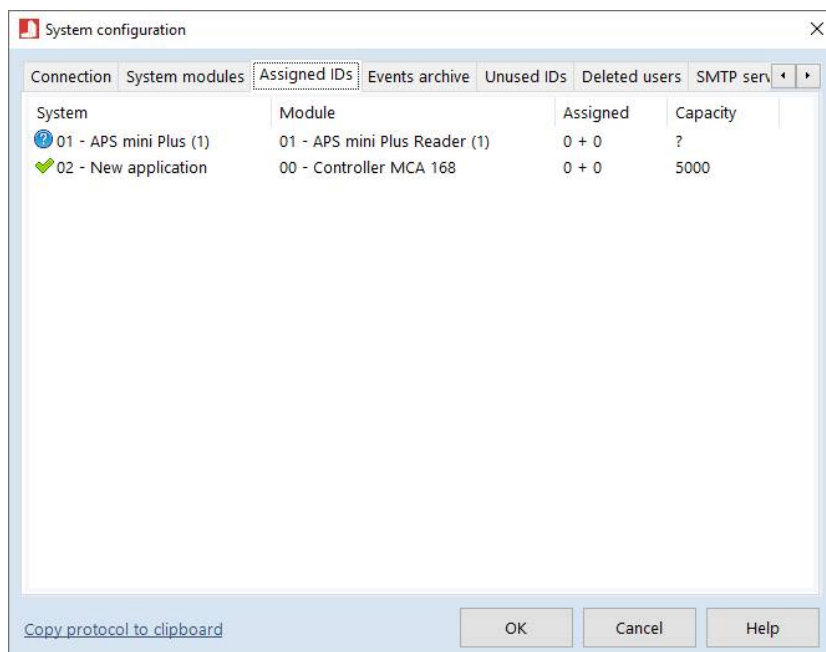
In *Setting* it is necessary to enter the *Serial number* of the reader. Then you can specify the parameters of the reader. Specific settings:

- *Permanent lock release by card* – enable/disable permanent door lock release by repeated showing of the same card with assigned rights,
- *Permanent lock release setting* – define if the reader can be permanently locked and unlocked by a card with assigned rights or just locked when permanently opened by time plan.

Tab *Events and Warnings* is described earlier in this document.

3.7.3. Assigned IDs

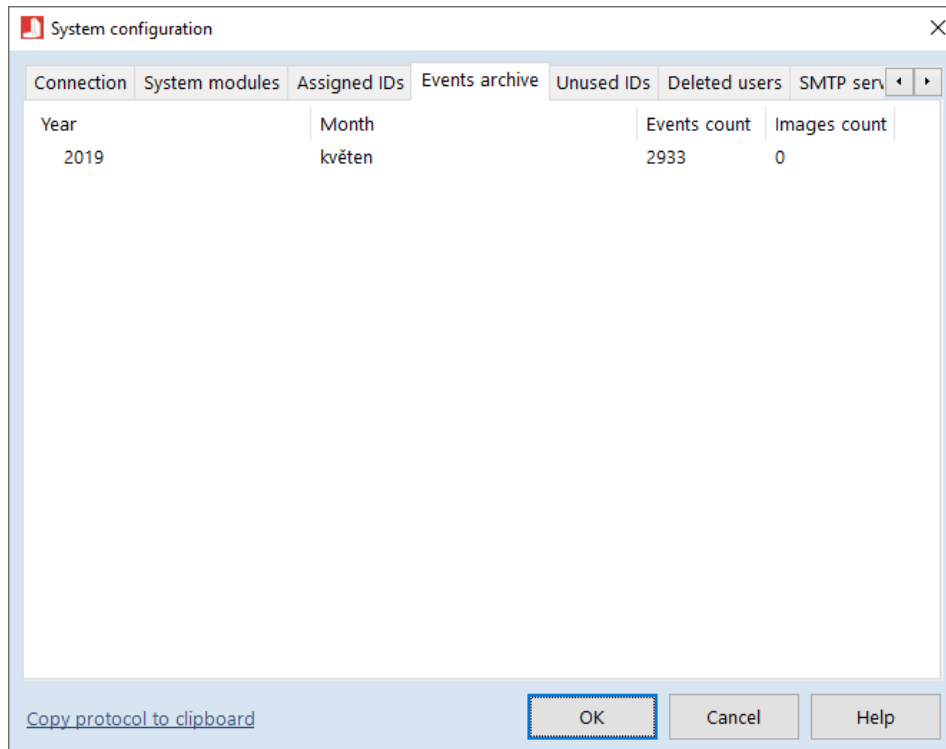
At the *Assigned IDs* (pic. 3.10) tab there is information about the count of IDs, which are uploaded in the systems when the data upload command is requested, and the capacity of the modules in individual systems. If the number of *Assigned IDs* exceeds the *Capacity* of relevant module, it is not possible to upload all IDs into it. The solution of such case is upgrade of the system. For more information about the upgrade, contact the producer's technical support.



Pic. 3.10: Assigned IDs tab

3.7.4. Events archive

As the events archive of the system grows all the time, the DB file size on the disk gets larger. Since the size of DB file is limited for certain versions of SQL Server (e.g. 4GB for MS SQL Server 2005 Express), it is appropriate to perform maintenance of the database by deleting old events and pictures from the database. This action can be performed at the *Events archive* tab (pic. 3.11).

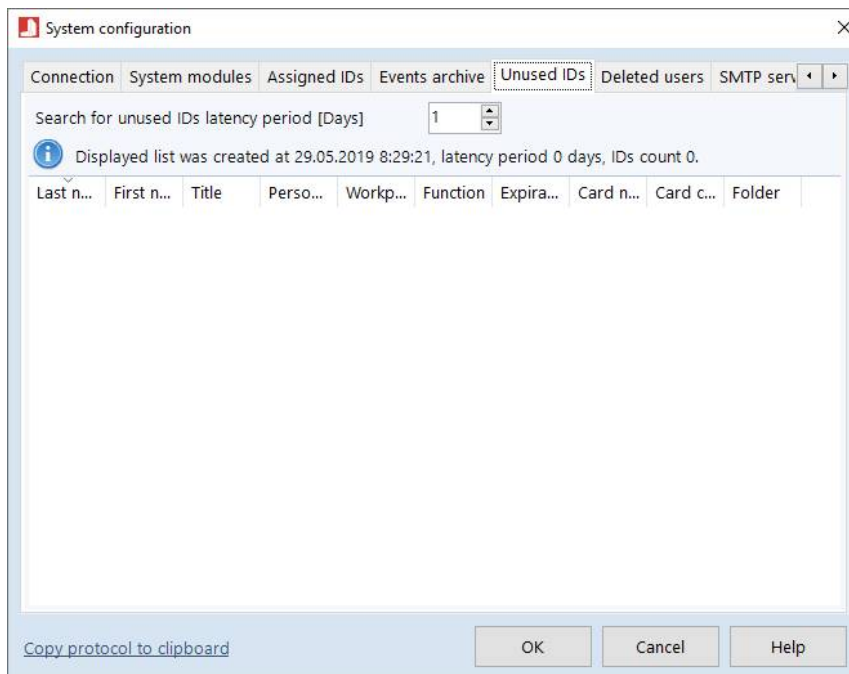


Pic. 3.11: Events archive tab

Select the appropriate month(s) and use the *Delete* (pictures or events and pictures) command from the context menu. The operation can take a long time, in case you delete larger data sets, it is recommended to proceed with smaller steps.

3.7.5. Unused IDs tab

The *Unused IDs* tab displays a list of IDs, that were not recently used. The refresh of this list is done asynchronously by APS Server once a day. This operation can take a very long time; therefore, it cannot be run from the APS Server program itself – the program only contains the setting parameter for the search (*pic. 3.12*).



Pic. 3.12: Unused IDs

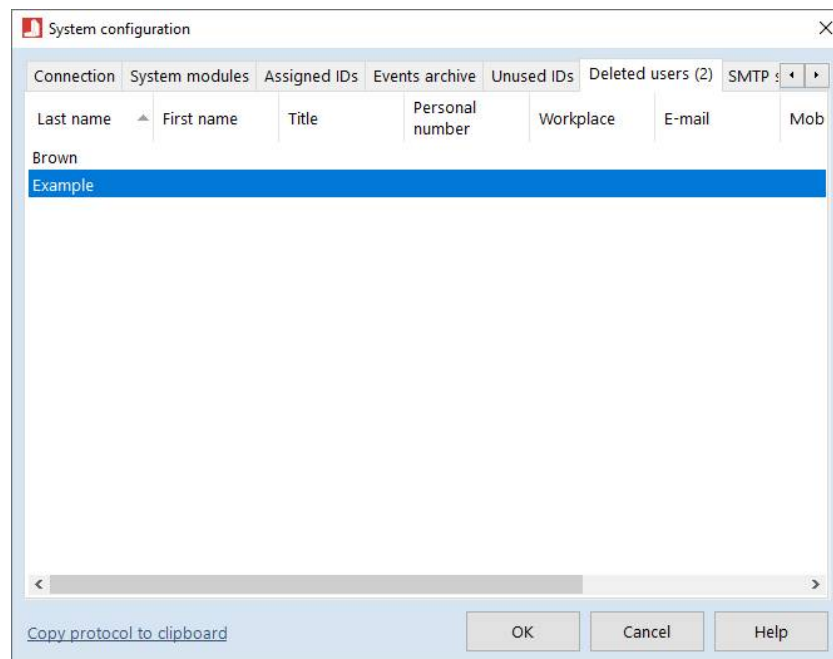
The only parameter here is the minimal *number of days*, in which the ID was not used.

The table contains a list of the last search. After selecting IDs from the list, you can choose from a command in context menu, which can release or delete selected IDs, or even delete the personal lists of cardholders.

3.7.6. Deleted users

The *Deleted users* tab (pic. 3.13) contains list of deleted personal cards. It is possible here:

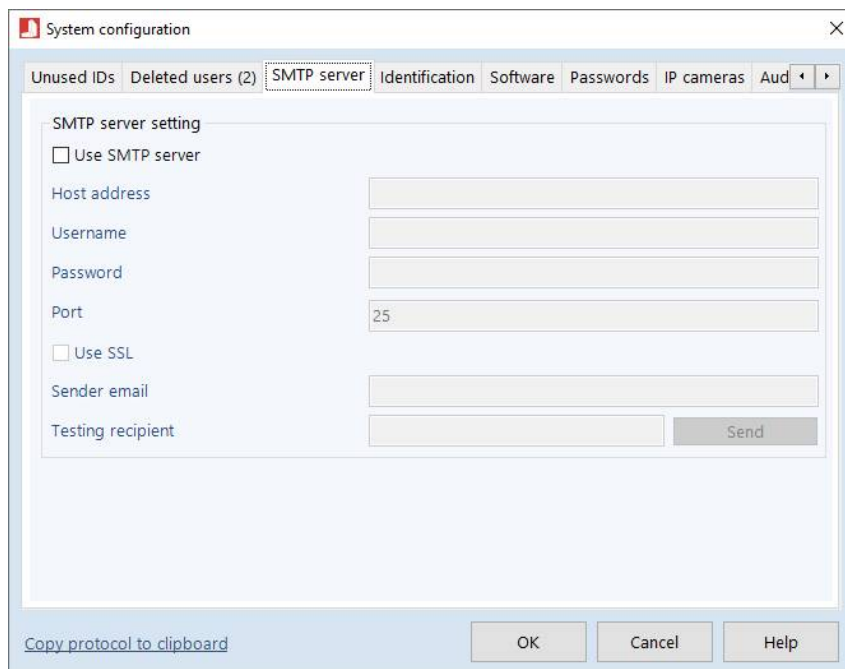
- *Restore* deleted personal cards ... in the list of deleted personal cards, select the ones you want to restore and then select the *Restore* command in the context menu. Then select the folder to which the personal sheets will be restored.
- *Anonymize* deleted personal cards (including related data – GDPR) ... in the list of deleted personal cards, select the ones whose data you want to anonymize and then select the *Anonymize* command in the context menu. This operation cannot be undone.



Pic. 3.13: Deleted users tab

3.7.7. SMTP server

At the **SMTP server** tab there is a setting of SMTP server used for sending emails within the APS Administrator system (*pic. 3.14*).



The screenshot shows a 'System configuration' window with the 'SMTP server' tab selected. The 'SMTP server setting' section contains the following fields and options:

- ☐ Use SMTP server
- Host address: [text input field]
- Username: [text input field]
- Password: [text input field]
- Port: [text input field with value 25]
- ☐ Use SSL
- Sender email: [text input field]
- Testing recipient: [text input field] with a 'Send' button to its right.

At the bottom of the window, there is a link 'Copy protocol to clipboard', and three buttons: 'OK', 'Cancel', and 'Help'.

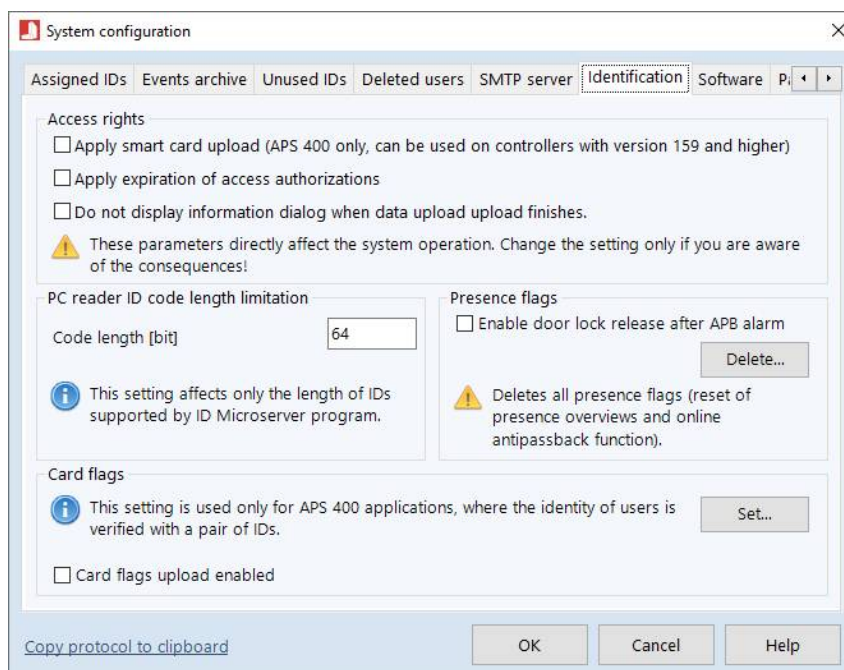
Pic. 3.14 SMTP server tab

After selecting the Use SMTP server option enter the host address and port of the server. If required, enter the username and password of the account used to authenticate at the server. Furthermore, choose Use SSL, if it is used.

Enter the Sender email – this email address will be used as a sender of all emails. Last option is to fill in a testing recipient and press the Test button to verify, that the setting is functional.

3.7.8. Identification tab

Following options can be set at the *Identification tab* (pic. 3.15).



Pic. 3.15: Identification tab

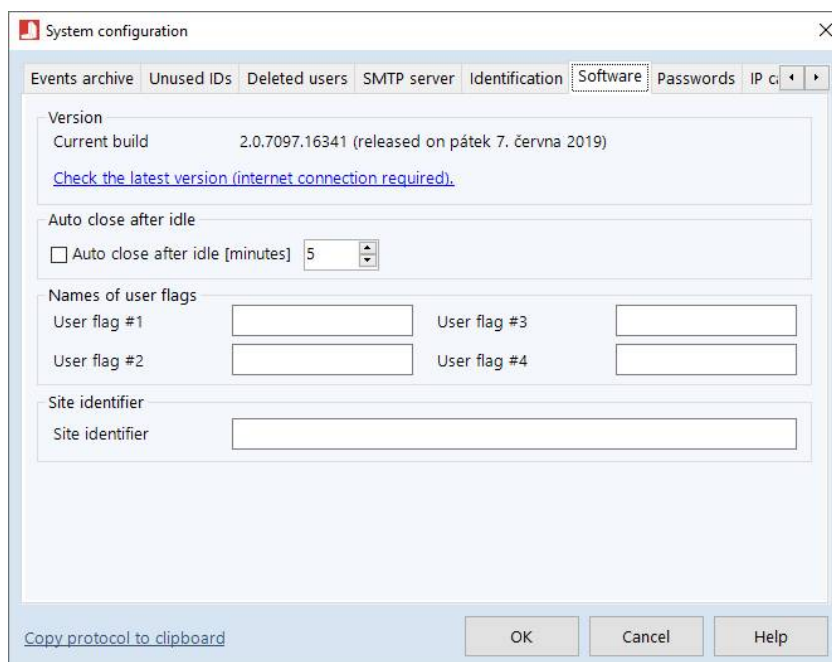
- *Apply smart card upload (APS 400 only).*

¹⁾*Smart card download* method is required in applications, where the system controller operates with the user *counters*, *ID bytes* or *Present flags*.

- *Apply expiration of access authorizations* – this function is provided by APS Server online. Disabling it does not affect expiration of the visitor's permissions.
- *Do not display information dialog when data upload finishes* – disables the popup window, which informs about the finishing the access rights data upload.
- *Delete presence flags* – deletes all area presence flags of all users (related with the Antipassback function in the *online authorization* mode).
- *PC reader ID code length limitation* – formerly used option for changing the length of ID codes read by a PC reader; the function is currently substituted by the options of ID Microserver program.
- *Card flags* – The *Set* button is used for automatic setting of the values of card byte flags in *Identification with a pair of IDs* applications (see technical guide on web).
- *Card flags upload enabled* – global settings for enabling card flags upload in APS Administrator (byte1, byte2, Present flag – all in APS 400 system), use in *Identification with a pair of IDs* applications and other application types.

3.7.9. Software tab

At the **Software** tab (pic. 3.16) you can check the latest version of the software release (requires internet access).



Pic. 3.16: Software tab

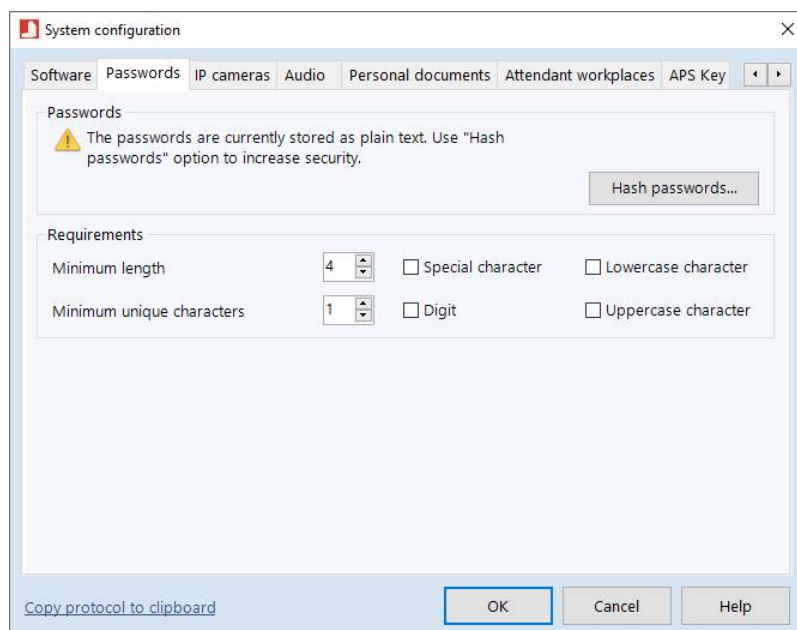
The **Auto close after idle** option is used to set up a time, after which, if operator does not perform any action with the program, the program is closed.

Furthermore, you can set the **Names of user flags** of the personal cards – APS Administrator does not work with user flag values; they are used, for example, in integration with other systems.

The **Site identifier** field is reserved for special user export purpose.

3.7.10. Passwords tab

The Passwords tab (pic. 3.17) contains an option to set up



Pic. 3.17: Passwords tab

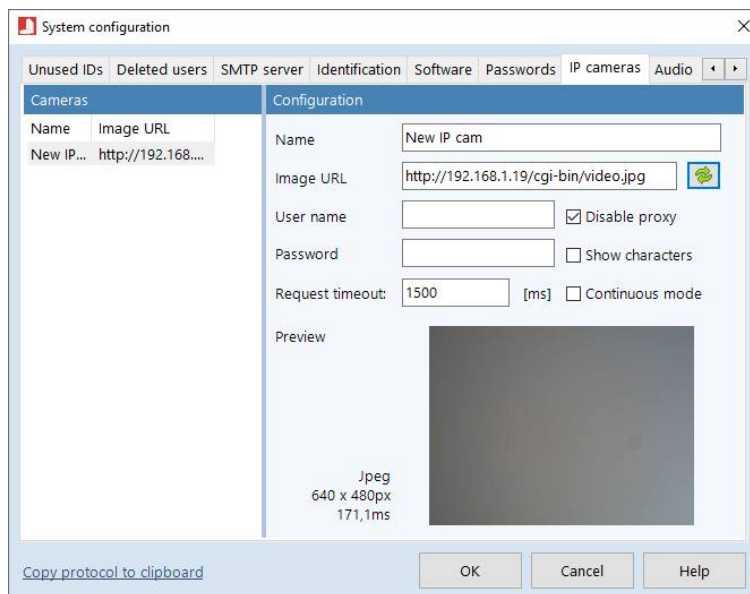
The passwords for **APS Administrator** program login are stored as pure text in the database by default. If you want to **hash** the passwords (recommended), press the Hash passwords button. The passwords will be stored in their **hash form** in the database then. The password cannot be reproduced from its hash form.

After the passwords are hashed it is necessary to **perform upgrade of all SW equipment of the APS Administrator software package** to versions released after 2014/05/30. Without this action you will not be able to log in to any program from the package!

Other options are related with the requirements for password strength. It is possible to set up requirements for minimal length of the password, minimal number of unique characters, and necessity to contain characters from specific groups.

3.7.11. IP cameras tab

The IP cameras can be defined at **IP cameras** tab (pic. 3.18).



Pic. 3.18: IP cameras tab

Generally speaking, any IP camera supporting **HTTP GET request** for a **JPEG** format picture is suitable. For inserting a new camera, press the **New IP camera** button or select the command from the context menu. If you intend to delete a camera, do it by pressing the **Delete selected object** button or select the command from the context menu.

After inserting an IP camera, it is necessary to set up its properties first:

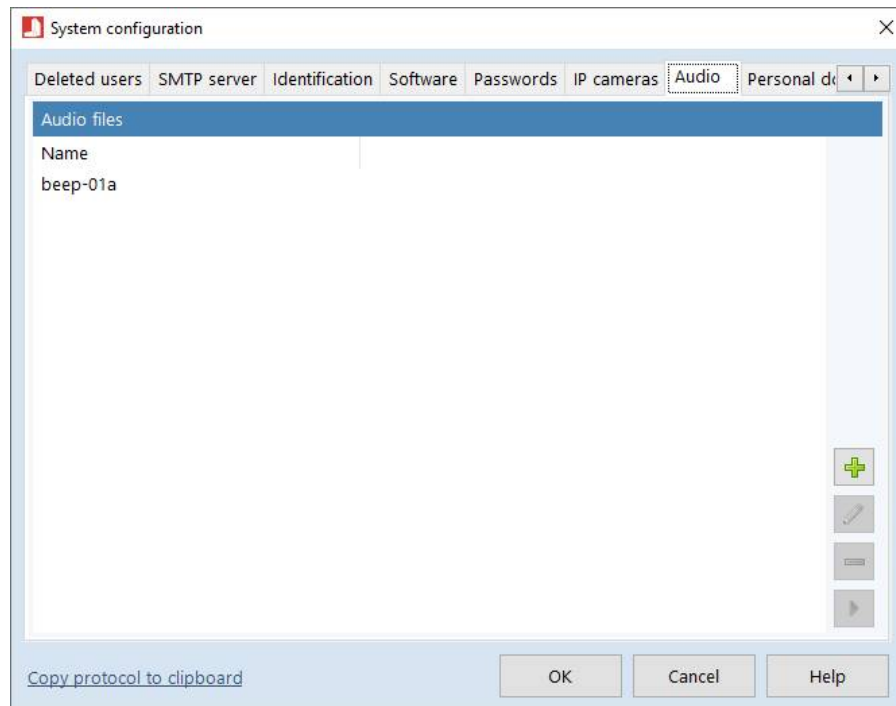
- **Name** – an identifier of the camera in the APS Home program.
- **Image URL** – address, where the image from the camera in the jpg format is (e.g. when using the **Vivotek ST7130** camera, the address is „http://**IP_ADDRESS**/cgi-bin/viewer/video.jpg“, where **IP_ADDRESS** is the IP address of the camera).
- **User name** and **Password** – credentials (when it is required by the camera).
- **Request timeout** – maximal time (in ms) of waiting for the camera response – if the camera does not respond to an image request in specified time, it is considered unavailable and the image is not saved.
- **Disable proxy** – disables usage of the proxy when getting the image with HTTP request (recommended).
- **Continuous mode** – if the feature is not used, a picture from camera is shot after the program sends a request to the camera (when this mode is used, the program automatically uses a higher communication rate to reduce the response timeout). If the feature is used, the camera sends snaps to the program continuously, then a request for image saving comes, the program saves the closest snap.

If you want to display the content of the **Password** field, select the **Show characters** option. For verifying the picture accessibility press the **Refresh** button (next to the Image URL field), the picture appears in the **Preview** area when configured correctly. Before saving the configuration, it is appropriate to perform one test at least.

The context menu of selected camera also contains the setting of its **availability** for individual organizational folders and individual workplaces (concerns **APS Administrator.VIS** extension).

3.7.12. Audio tab

The audio files can be defined at *Audio* tab (pic. 3.19).

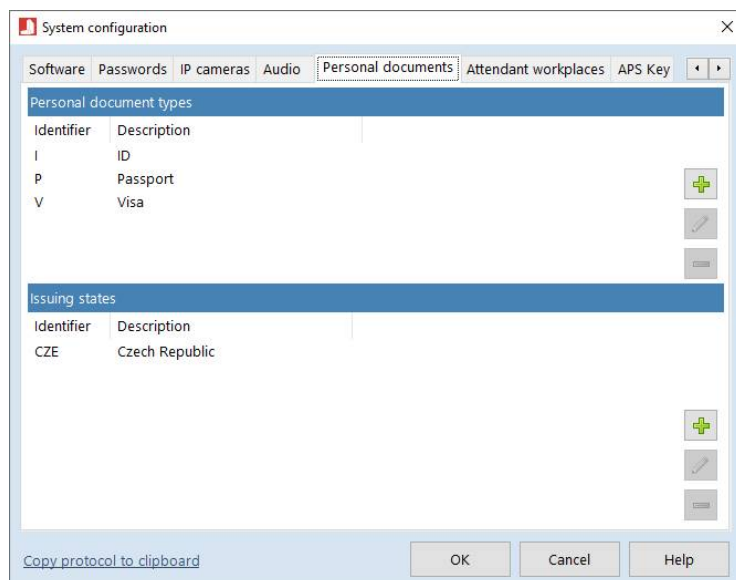


Pic. 3.19: Audio tab

The tab contains resources to manage an audio files library, that can be used to play such sounds throughout the APS Administrator system, wherever it is suitable.

3.7.13. Personal documents

The *Personal documents* tab (pic. 3.20) enables user to manage the types of personal documents and issuing states. Control buttons can be used to insert new, change and delete existing records.

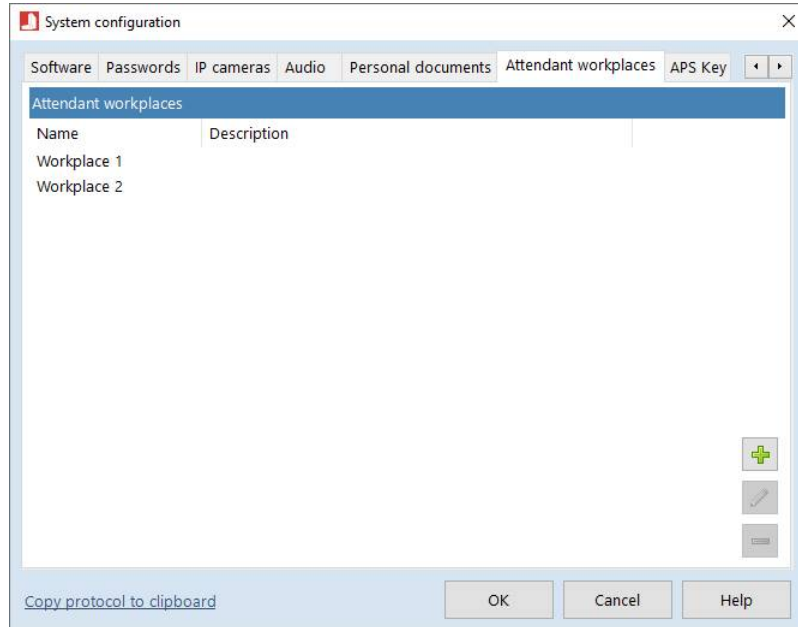


Pic. 3.20: Personal documents tab

The document types consist of single-letter shortcut and a description. The issuing states are identified by a three-letter shortcut; the description contains the state name.

3.7.14. Attendant workplaces

This setting (*pic. 3.21*) is useful for the **VIS** extension. In the systems with more attendant workplaces it is possible to assign some routes, zones and tracking visitors, IP cams, etc. just to specific workplaces. By button **+** you can create a new attendant workplace.

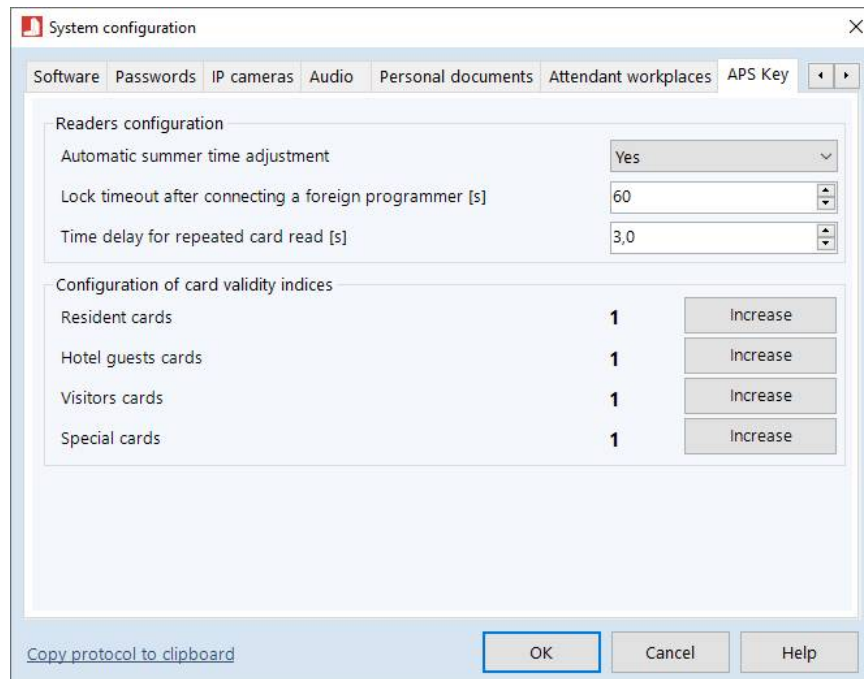


Pic. 3.21: Attendant workplaces tab

If there is no attendant workplace created the whole function is ignored.

3.7.15. APS Key tab

In the tab APS Key you can configure basic parameters of APS Key modules (*pic. 3.22*).

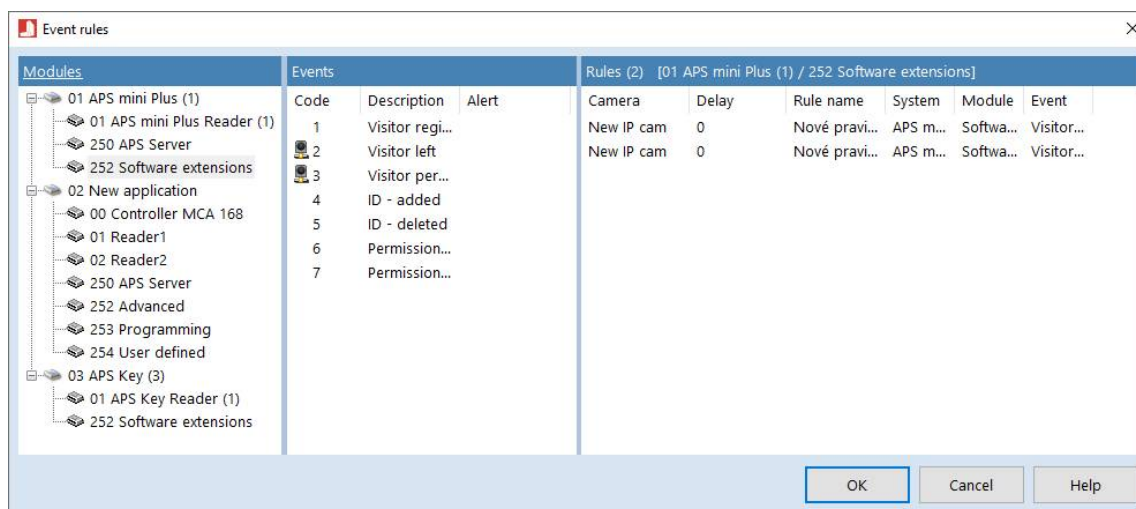


Pic. 3.22: APS Key tab

- **Automatic summer time adjustment.**
- **Lock timeout after connecting a foreign programmer** – time in seconds for which is the reader locked if connected a foreign programmer. After set time the reader checks programmer ID again and can stop communicating again.
- **Time delay for repeated card read** – time in seconds after which a card read is considered to be a new card – not repeated (important if using **permanent lock release by card**).
- **Configuration of card validity indices** – setting of validity indices for each type of card.

3.8. IP camera rules setting

The IP camera image saving is defined by a set of rules, which can be set by following procedure (*pic. 3.23*).



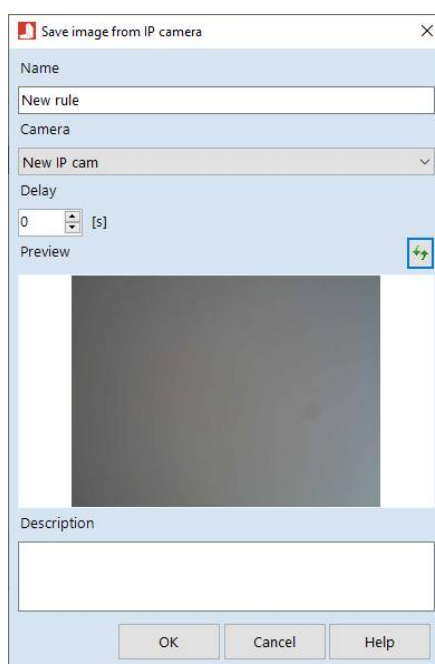
Pic. 3.23: Event rules dialog

The setting is available in the *Event rules* dialog. The dialog is available in the Configuration menu.

For creating a new rule, select appropriate module and event from the list first. Creating, deleting and editing rules options are available in the context menu in the right part of the dialog.

Rule setting

In the *Rule* dialog (*pic. 3.24*) it is possible to set the IP camera rule.



Pic. 3.24: Save image from IP camera rule

In the **Camera** option select your camera from the list first. The **Name** parameter defines the rule name in APS Home program, **Description** is an optional text description of the rule. The **Delay** parameter sets a time period between the event occurrence and taking the picture (in seconds). It is possible to take multiple pictures from a single camera and event by adding rules with different delay parameter.

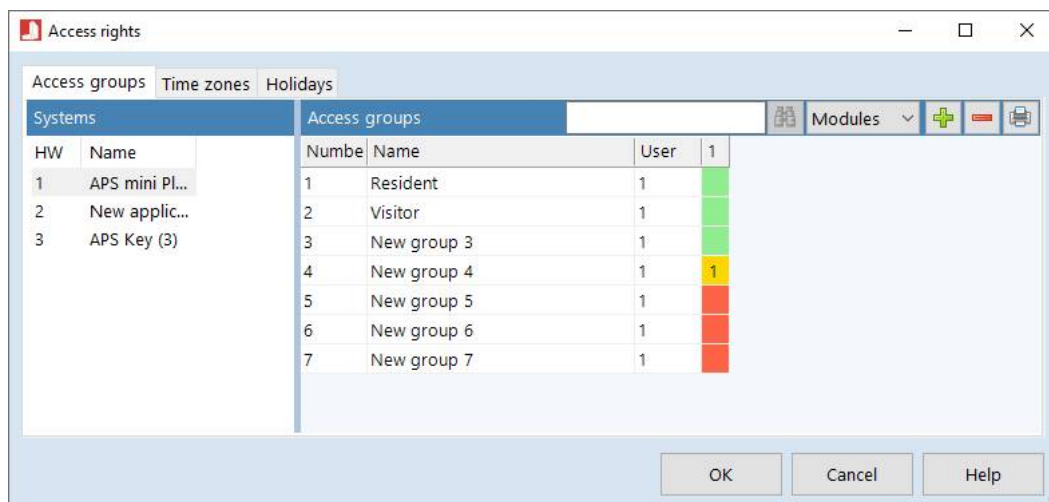
A negative delay can be set to the cameras using the continuous shooting mode; if the camera does not use this mode, the program displays a warning.

3.9. Access rights setting

Access rights processing are performed according to the access group assigned to particular cardholder. Access rights definitions configuration dialog can be displayed by **Access rights** command from **Configuration** menu of main application menu. Access rights setting can be performed only by users authorized as **Administrator** or **Access group definitions**.

3.9.1. Access groups

The first tab of the configuration dialog (pic. 3.25) contains a list of access groups of particular systems.



Pic. 3.25: Access groups

The values of access groups' numbers and/or user codes can influence the system behavior (it depends on required controller programming). It is necessary to respect all these values if the script is dependent on, in other way these values can be arbitrary.

Fields defining an access level for each reader module in particular access group are displayed in concerned columns. Each access level can go up in value **access granted** (green); **access denied** (red) or **access by a time zone** (time zone number in a yellow field). The authorization flag (black triangle in the left upper corner in the field) can be assigned if the access is not denied. Its meaning depends on application programming¹⁾ (IDS control authorization is being set in this way).

Access rights editing can be performed either with a mouse (in the setting window which displaying can be enabled or disabled in the local menu) or by using keys **A**, **N**, **SPACE**, **+** and **-** (the last two characters on a numeric keypad only). Setting up access rights can be also done by using Copy and Paste clipboard commands in a context menu.

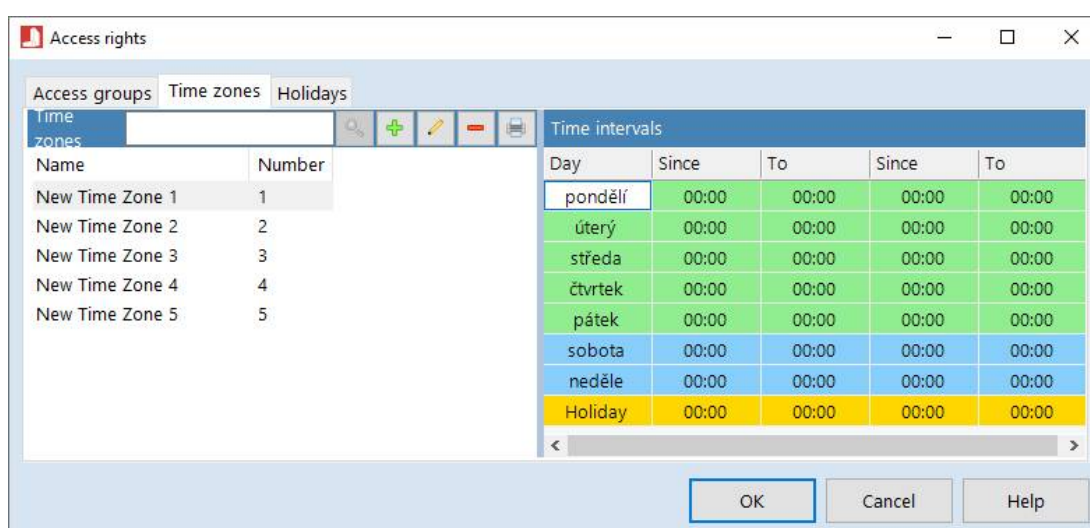
There is an option to *search among the access groups* by entering a group name in the field located above the groups list next to the binocular icon. You can cycle through the result by pressing the F3 key.

Another option is *searching by module name*. To do so select Modules in the field next to search text box and then press the search button. If a group contains a definition set for the found module, it is displayed in the result list.

Deletion of the access group removes the group from all personal cards and folders it was assigned to.

3.9.2. Time zones

The second tab (pic. 3.26) contains the list of *time zones* (they are common for all systems) and selected time zone definitions.



Pic. 3.26: Time zones

The definitions contain two intervals of access permission for each day of a week and another one for holidays.

Time values editing can be performed by a mouse (pressing the buttons in selected field) or by using + and – keys on a numerical keypad (increasing and decreasing hours, minutes with *SHIFT* key pressed).

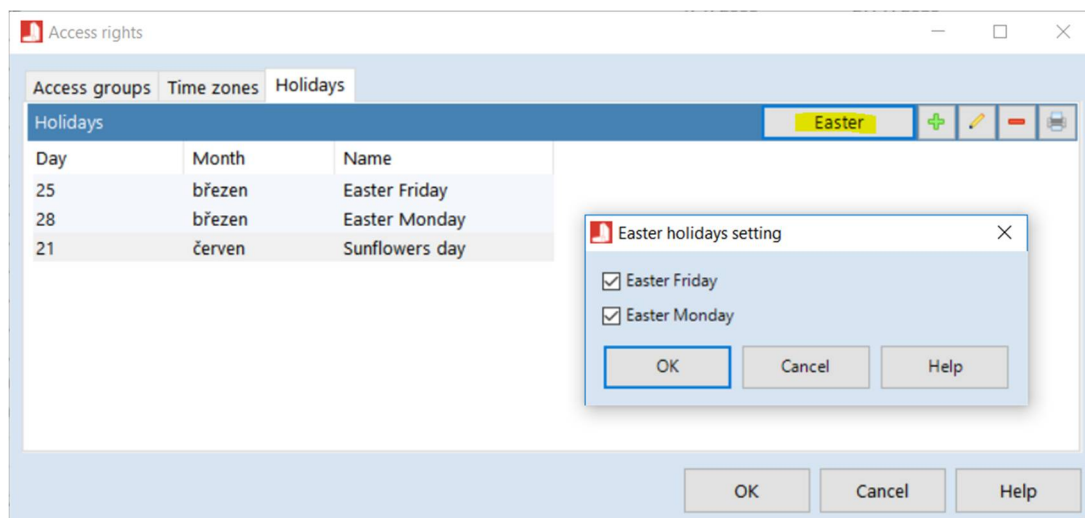
If the time zone is deleted, all access rights using the time zone are set to access denied.

For easing the work with time schedules the *copy and paste function* for *individual time intervals* is implemented. Proper commands can be found in the context menu for the specific day.

Another option is *searching by time zone name* by entering a time zone name in the field located above the time zone list next to the magnifying glass icon. You can cycle through the result by pressing the F3 key.

3.9.3. Holidays

The last tab of this dialog contains the list of days which have to be considered as holidays during processing the access rights (*pic. 3.27*).



Pic. 3.27: Holidays

The system can add automatically Easter Friday and Easter Monday. It is necessary to send access rights to modules at least once between the New Year and Easter.

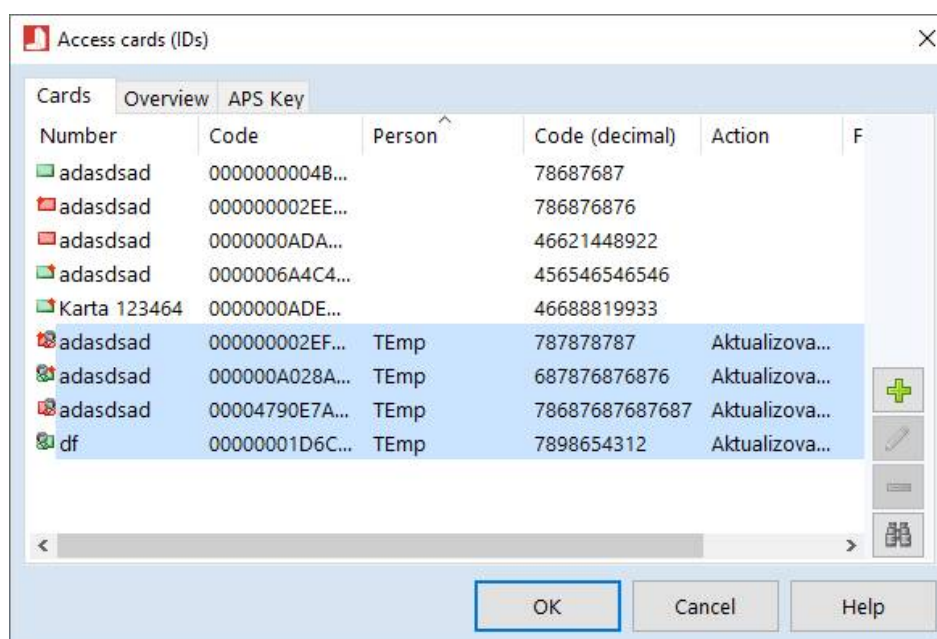
3.9.4. Uploading access rights to the system

It is necessary to upload the data from APS Administrator program to connected systems for all settings to take effect. Press the **Data upload** button in application tool bar to transfer the data. The data transfer start is announced by an information dialogue, when the download to a controller is finished (APS 400 system), an information dialogue is also shown, if the program is online connected to APS Server program (connection is available at **Program > Communication with systems**).

3.10. Access cards

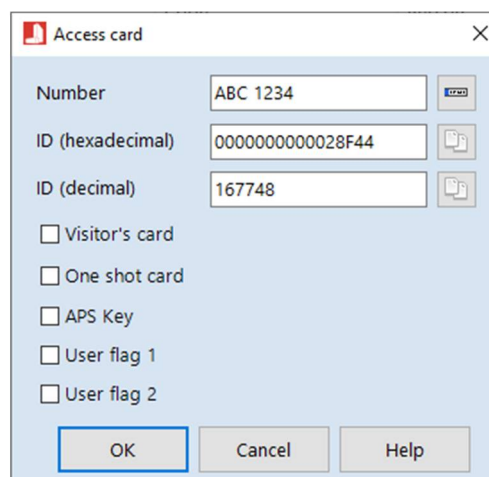
Access cards table (more specifically ID media table) is separated from a personal cards table. Therefore, it is possible to cancel the assignment of particular users' cards and assign them to other users or repeatedly assign the same cards to various users e.g. visitors. A non-assigned access card does is not downloaded to the system (it is considered as unknown). Multiple cards can be assigned to a single personal card (all of them provide the same access level related to the access group assigned to a user).

Access cards management dialog (pic. 3.28) can be opened by *Access cards* command from the *Configuration* dialog of the main application window. The dialog is available for users with authorization *Administrator* and *ID media administrator*. Buttons for adding, editing and erasing the access card are located in the lower part of the dialog.



Pic. 3.28: Access cards configuration

A description (*Number*) can be assigned to a unique *ID* of each access card (displayed both in hexadecimal and decimal format). Extended software module for visitors' registration (see <http://www.techfass.com/>) enables setting up the *Visitor flag* to a card (pic. 3.29).



Pic. 3.29: Access card

The button with the car plate symbol allows to convert car plate text to a 24-bit ID which is used by some types of car plate cameras to send it in 26bit wiegand format (for example Dahua ITC237-PW6M-IRLZF1050 camera with IPM-AE7-0020A converter).

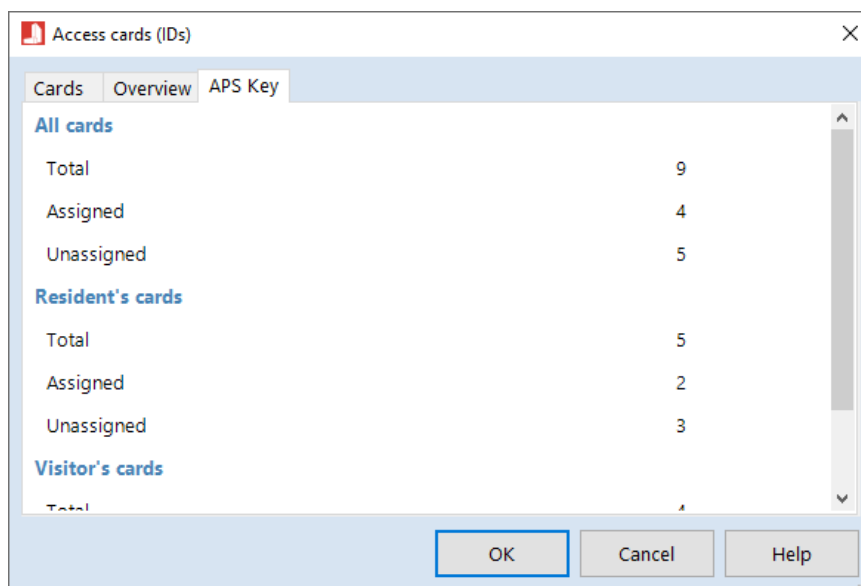
A card with a **One shot flag** is released from the user's possession and deleted from the system after the first valid identification in a system. Another flag is called **APS Key** – this flag defines, if the card belongs to APS Key system. Other flags are **User flags** – these can help to distinguish cards according to user needs.

Flags can be also set en masse in a context menu. **Surname**, **name**, and **title** are displayed in the **Person** column if the card is assigned to a user. Buttons for card creation, editing and deletion are placed below the list of access cards. **Table 1** explains meanings of the icons symbolizing cards' flags and assignments.

Meaning of card icons	Icon	Meaning
		Unassigned residential card
		Assigned residential card
		Unassigned one-shot residential card
		Assigned one shot residential card
		Unassigned visitors' card
		Assigned visitors' card
		Unassigned one-shot visitors' card
		Assigned one shot visitors' card
		Unassigned residential APS Key card
		Assigned residential APS Key card
		Unassigned one-shot residential APS Key card
		Assigned one shot residential APS Key card
		Unassigned visitors' APS Key card
		Assigned visitors' APS Key card
		Unassigned one-shot visitors' APS Key card
		Assigned one shot visitors' APS Key card

Tab. 1: Access cards' icons meanings

You can find an overview of the total number of visitors', residents' and all cards in **Overview** tab (pic. 3.30).



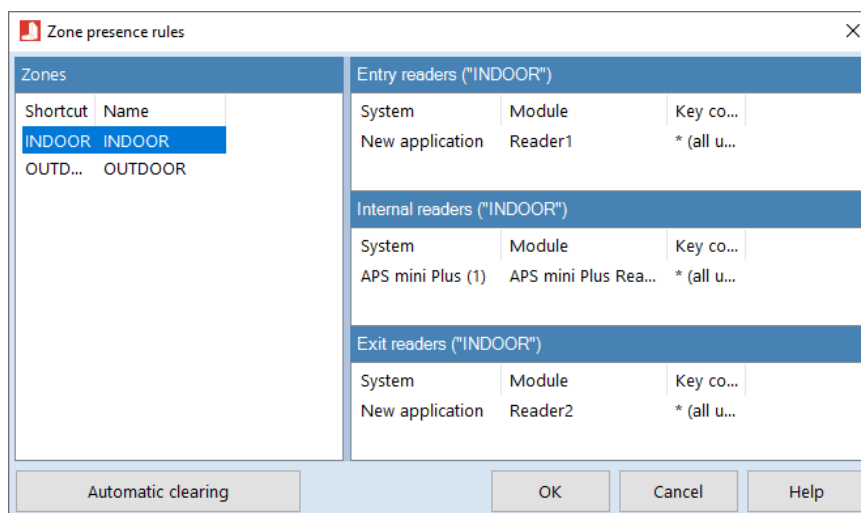
Pic. 3.30: Overview

ID media codes can be easily collected using a local micro-reader and/or any system reader followed by inserting the codes to the database from the *Events Online* module. *Add personal card* command, that ensures easy personal cards creation for each unassigned access card, is placed in a local menu of the cards list. Personal lists generated with such command are placed into the root folder of the organization tree. Unassigned cards can also be *assigned en masse* in the main program window. Select proper users and choose the *Assign access cards* option from the context menu. Set up *Count of cards per user* parameter and press the *OK* button to proceed. Every selected user gets the selected number of cards assigned, if such number of unassigned cards is available.

3.11. Zones of presence

Some applications require monitoring the presence of persons in defined zones. This option also enables to use the *Antipassback* function evaluation. This function requires using the *Online authorization* mode on the modules, which are used in the rules for entering and leaving the zones, which are used for this function. Also, you can configure the rules for readers, which are located inside the area (internal readers).

User enters or exits an area, when he performs an identification event following *Zone presence rules*. The configuration dialog is displayed by selecting *Zones* in the *Configuration* menu in the main application window (pic. 3.31). The configuration can be changed by a user authorized as *Administrator* only.



Pic. 3.31: Rules for zones presence

The configuration dialog is vertically divided into two parts:

- List of zones (in the left part).
- List of all rules set for entering and exiting the selected area.

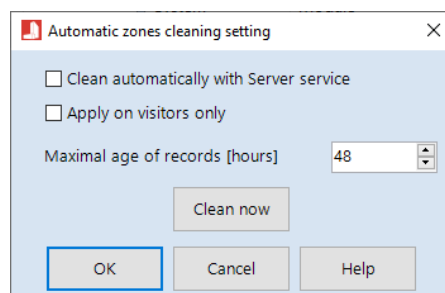
To *create*, *edit* and *delete* the areas use standard commands located in the context menu in the Zones list area. To create a new rule, select the designated area and *New* command from the context menu. In the displayed dialog it is necessary select system, module and key code for the rule. Delete the rule by selecting it and choosing the *Delete* option from the context menu.

The key code designated with * means all reason key codes at the given module (0-255) except the key codes already used in other rules for the module.

To delete zone presence flags for selected zone, choose appropriate command from context menu.

3.11.1. Automatic cleaning

Rules for automatic zones presence flags cleaning (pic. 3.32) can be seen in the dialog after pressing the **Automatic clearing** button.

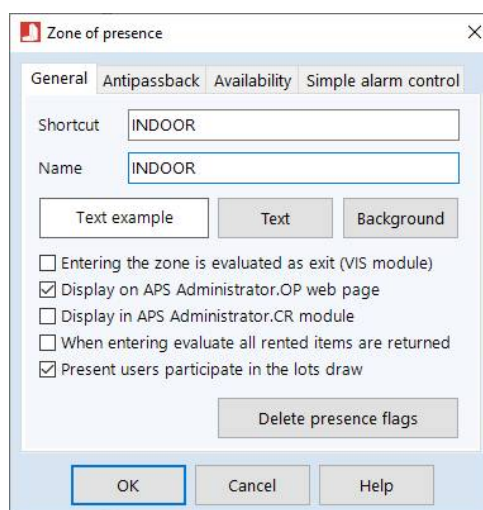


Pic. 3.32: Area – automatic cleaning

Automatic cleaning of presence flags can be done by the communication server (APS Server). Furthermore, it is possible to apply the clearing on **visitors** only, and select the **maximal age** of records that will stay undeleted. By pressing the **Clean now** button it is possible to perform an instant cleaning according to selected parameters.

3.11.2. General properties of the zone

After selecting a zone it is possible to set up following parameters at the **General** tab (pic. 3.33): the **text** and **background** parameters together with **Entering the zone is evaluated as exit (VIS module)** are reserved for use with **APS Administrator.VIS** module and affect the notes display mode and program behavior.



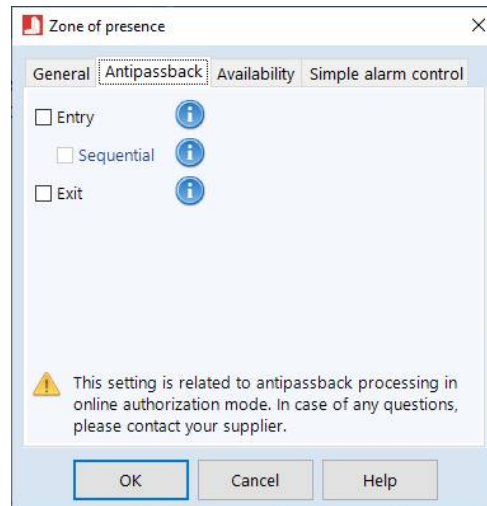
Pic. 3.33: Zone – General

The **Display on APS Administrator.OP web** and **Display in APS Administrator.CR** option determines, whether the zone is displayed on the **APS Administrator.OP** web page, resp. in the **APS Administrator.CR** software. Options **When entering evaluate all rented items** are returned and **Present user participate in the lots draw** enables described functions.

To delete all presence flags of persons currently located in the area, press the **Delete presence flags** button. The function is suitable for APB control.

3.11.3. Antipassback function

The *Antipassback* function (pic. 3.34) is generally used to prevent the user from repeated entering of a zone, where he is already present. This function requires *Online authorization* method for entering and leaving the areas, where the function is used.



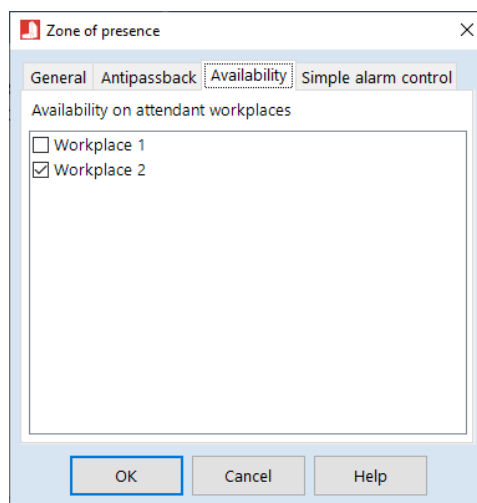
Pic. 3.34: Zone – Antipassback

The options for the function setting and its meaning are listed below:

- *Entry* – user cannot enter a zone, where he is already present.
- *Exit* – user cannot leave a zone, where he is not present.
- *Sequential* – user cannot enter a zone, if he is present in another zone, where the *Antipassback* is evaluated, and which is not a neighbor of the zone he is trying to enter.
- *Internal* (always used) – user cannot enter the door located inside an area, where he is not present.

3.11.4. Availability

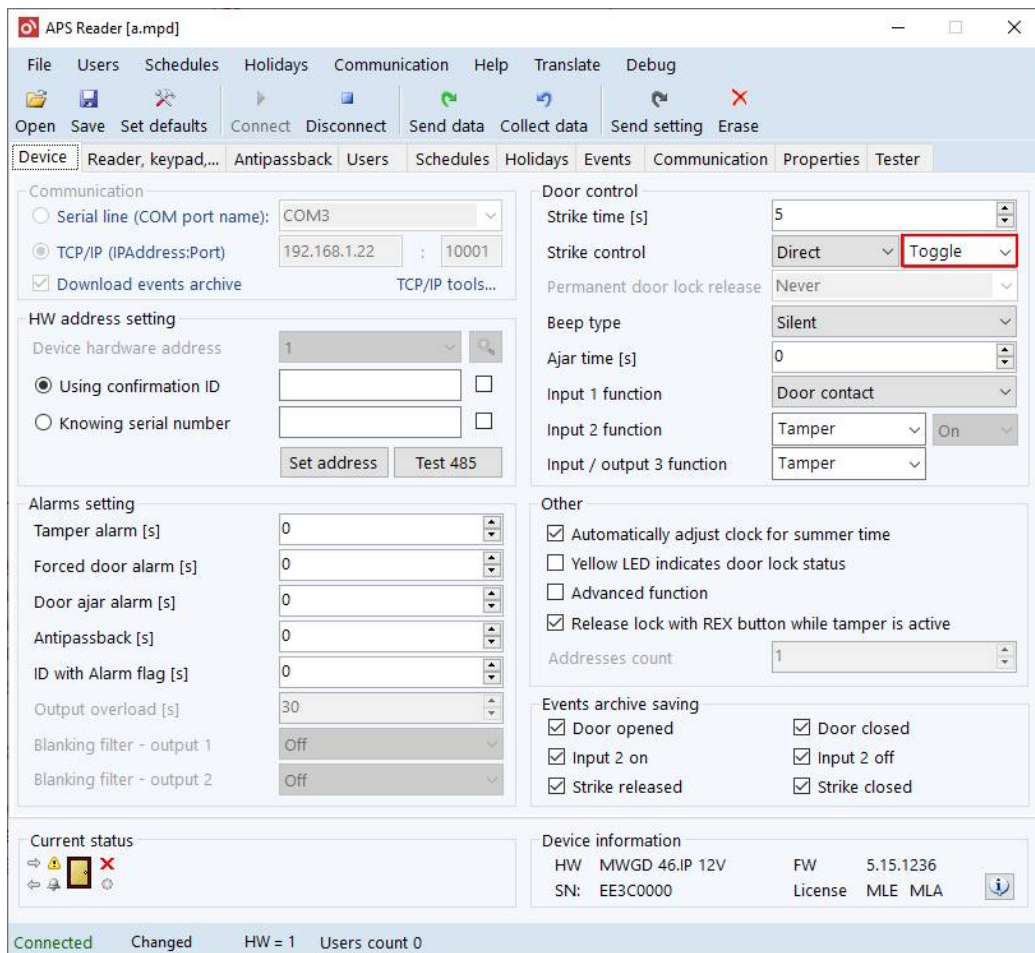
Choose attendance workplaces, in which it will be possible to see the presence of users for selected area (pic. 3.35).



Pic. 3.35: Area – availability

3.11.5. Simple alarm control function

The simple alarm control function is available from database version 82 (issued in September 2021) enabling control of the alarm status by *the control output* (status of the 1st output of the selected APS mini Plus module) based on the evaluation of the number of users present in the area. For the correct function of Simple alarm control, it is necessary to *set the lock control option to Toggle on the selected APS mini Plus module* (use the APS Reader program for the setting – *pic. 3.36*).

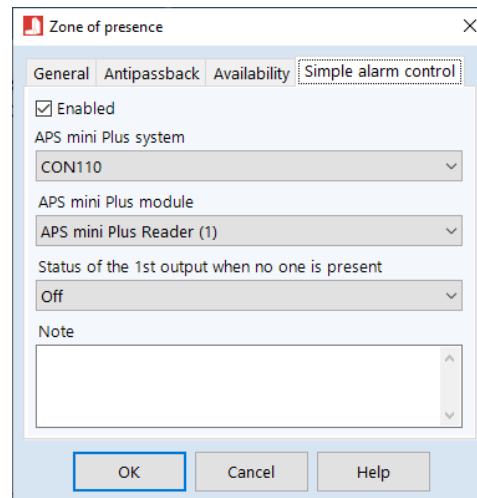


Pic. 3.36: Set the lock control option in the APS Reader program

The function is provided online by the APS Server as follows:

- Immediately after reading each relevant system event affecting the number of users present in the area.
- On every minute (asynchronous to the events reading).
- If no user is present and the status of the control output is "Disarmed", the server changes its status "Armed".
- If at least one user is present and the status of the control output is "Armed", the server changes its status to "Armed".
- The logic of the output is configurable.

The configuration of the Simple Guard function is performed on the Simple Guard tab (pic. 3.37).



Pic. 3.37: Area – Simple alarm control

The configuration options are as follows:

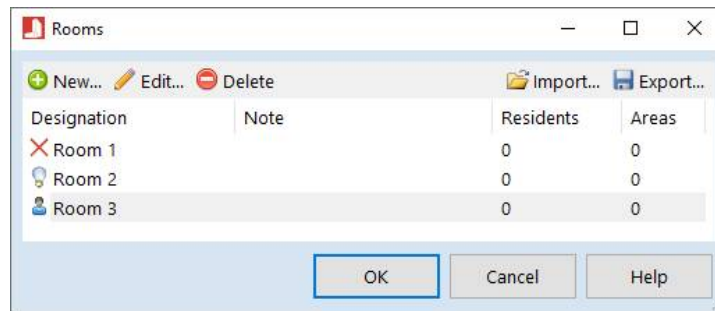
- **Enable** – Enables the Simple alarm control function for the area.
- **APS mini Plus system** – Select the system to which the control module is connected.
- **APS mini Plus module** –Module selection.
- **Status of the 1st output Status when no one is present.**
- **Note** – Text note.

Note: The current count of present users can be displayed by the **Present users count overview** window, which is displayed by selecting the Presence overview command from the Visualization menu.

3.12. Rooms

The **Rooms** definition option was primarily implemented for special customer's application. In some applications the rooms definition can also be used in a web application (**APS Administrator.OP**) for displaying present users in predefined rooms.

The configuration dialog is displayed by selecting **Rooms** in the **Configuration** menu in the main application window (pic. 3.38). The configuration can be changed by a user authorized as **Administrator** only.



Pic. 3.38: Rooms

The configuration dialog contains a **list of defined rooms** and resources for rooms' administration.

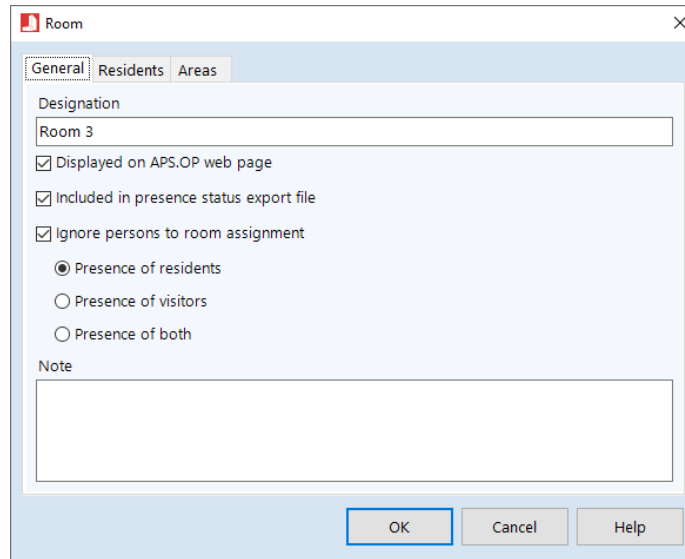
For simple room administration use the **New**, **Edit** and **Delete** buttons.

In order to make the rooms administration simpler, there is an option of **importing room data** (**Import** button) from a text file containing basic parameters of the room (designation and note). Existing rooms are skipped when the import is applied (when the designation matches). The file is expected to be in Unicode format, the values to be separated with commas, each row to contain single data record, no header on the first row.

The **room data** can be **exported** in a dialog available after pressing the **Export** button. In displayed dialog you can select the data columns of exported file, file header setting, data separator, and file coding.

The dialog is saved by pressing the **OK** button.

When creating a new room or editing an existing room (pic. 3.39), you can set up following parameters at the **General** tab:



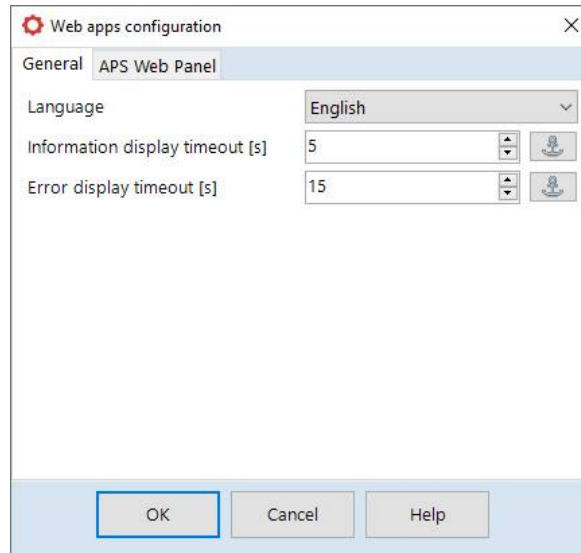
Pic. 3.39: Room

Designation (required) and a text **Note** describing the room, select, if the room should be **Displayed on the APS.OP web page**, and select, which users should be evaluated from the presence in room point of view – if the **Ignore persons to room assignment** option is checked, presence of all persons from selected group (**residents** / **visitors** / **both**) will be evaluated. If the setting is not checked, the presence will be evaluated only for persons, which are assigned to the room at the **Residents** tab. At the **Areas** tab it is necessary to assign areas to the room. The fact is that if the person is present in any of assigned areas, it is also present in the room.

The setting **Included in presence status export file** is bound to a special customer application.

3.13. Web apps setting

In the *Web apps configuration* dialog (pic. 3.40) you can configure *general setting* for web apps and specific setting for *APS Web Panel* application.



Pic. 3.40: Web apps configuration

3.13.1. General setting

The general setting enables to set up the language version of web applications. Also, there is a setting, which enables to define the timeout for information and error messages display.

3.13.2. APS Web Panel

The APS Web Panel tab contains a number of setting applied directly in the APS Web Panel web application.

- **Schedules** – enable edit – after it is checked, it generally enables the option to edit time schedules within APS Web Panel. The user also needs to have proper permissions set to do so.
- **Presence overviews** – Enable display of presence overviews – after it is checked, it enables to display the presence of users in selected folders or areas. The User can only view the presence of users from folders he can access.
- **Status**
 - Status refresh rate – the rate of refresh queries for the web visualization purpose
 - Function display timeout – The timeout, which sets how long the function run information is displayed
- **Address** – the address of the APS Web Panel application, which can be used throughout the system, wherever it is required

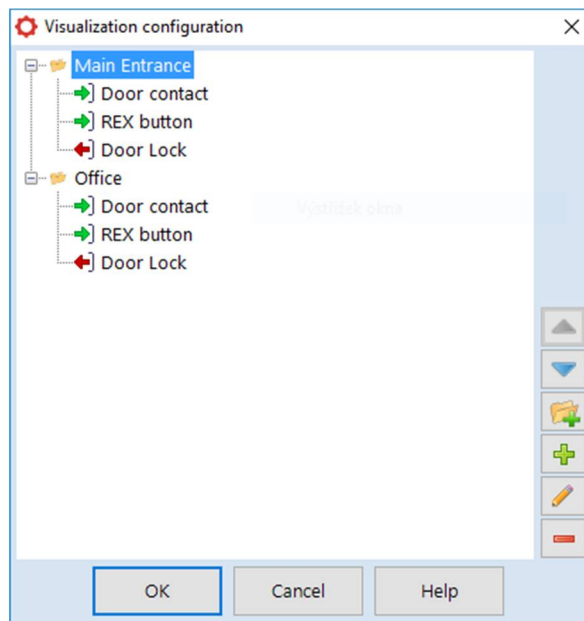
- *Edit user dialog properties*
 - Enable folder admin and send credentials button – enables a button, which creates a user, sets his rights for the folder, and sends login credentials to the user's email.
 - Enable to capture photos from IP cam – enables to capture photo from IP cam to set up the ID photo of a user
 - Display Login and authorization tab – sets up, if the tab is displayed in app
 - Display Persona document tab – sets up, if the tab is displayed in app
 - Family name – sets up, if the field is visible/required in the dialog
 - Maiden name – sets up, if the field is visible/required in the dialog
 - First name – sets up, if the field is visible/required in the dialog
 - Title – sets up, if the field is visible/required in the dialog
 - Personal number – sets up, if the field is visible/required in the dialog
 - Work function – sets up, if the field is visible/required in the dialog
 - Workplace – sets up, if the field is visible/required in the dialog
 - Telephone – sets up, if the field is visible/required in the dialog
 - Mobile – sets up, if the field is visible/required in the dialog
 - E-mail – sets up, if the field is visible/required in the dialog
 - Note – sets up, if the field is visible/required in the dialog
 - Gender – sets up, if the field is visible/required in the dialog
- *Edit folder and company properties*
 - Company name – sets up, if the field is visible/required in the dialog
 - Company checkbox – sets up, if the field is visible/required in the dialog
- *EHS setting*
 - Initial workplace – if set, each created EHS contract gets the selected workplace automatically assigned without any option to change it; if not set, the selection is enabled

3.14. Web visualization





Web visualization allows you to see the status of network modules in web app *APS Web Panel*.



3.14.1. Visualization

The window contents *Resource groups* (Pic. 3.41), in them you can find particular parts of the modules that can be add to the visualization.




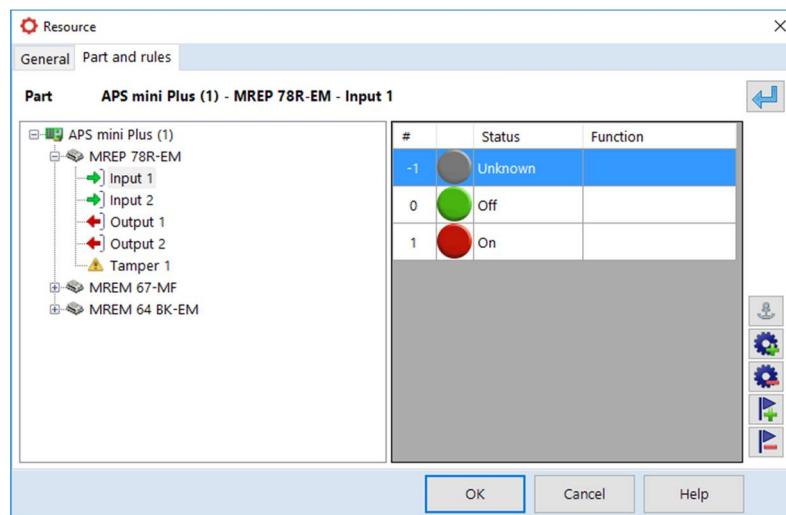
Pic. 3.41: Visualization configuration

By button  add a new resource group. Then by button  add particular resources to the group. By button  you can delete the resource. By button  you can change the resource.



By buttons  and  you can move the resources through the structure.



Resource administration

To add a new resource press , name the resource and in *Part and rules* choose an element from the tree structure that would be part of the visualization (Pic. 3.42).



Pic. 3.42: Configuration of resources

By buttons  and  you can change the definition of each state (for ex. The value *0* by *Input 1* doesn't mean „off“, but means „alarm“), or delete the state.

By buttons  and  you can add/delete a *user function*. The *user function* shows up if the resource is in defined state and the function is assigned to the user. The user has to have such user function enabled to be able to run it.

Save the resource by *OK* button.

3.14.2. Icons

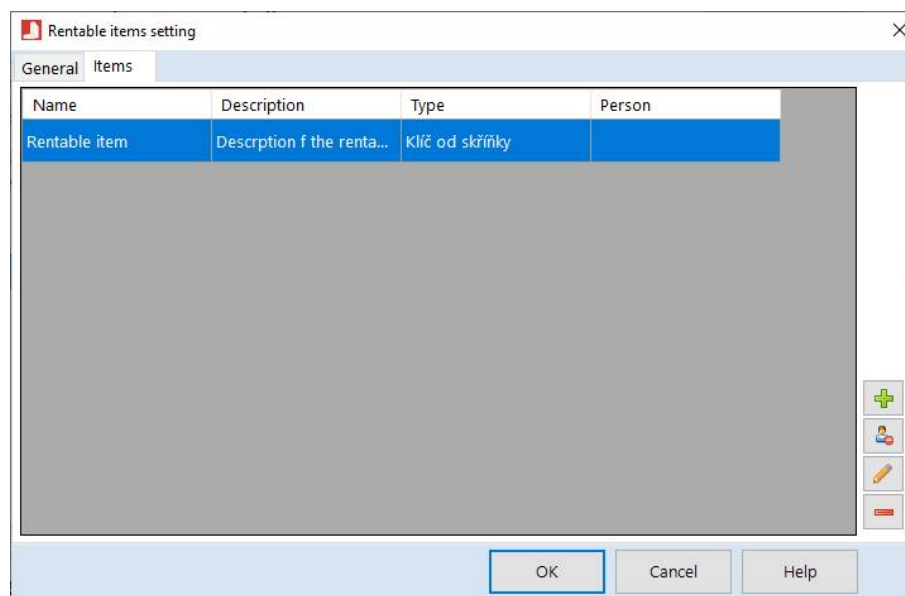
In this window you can configure the icons for visualization. You can add an icon in *.PNG* sized *32x32px*. You can delete or change just created icons not default.

3.14.3. Statuses

In this window you can configure network reader statuses. If you want to add a status you have to name it and add an icon.

3.15. Rentable items

This option allows you to set the Things to Rent mechanism (*Pic. 3.43*).



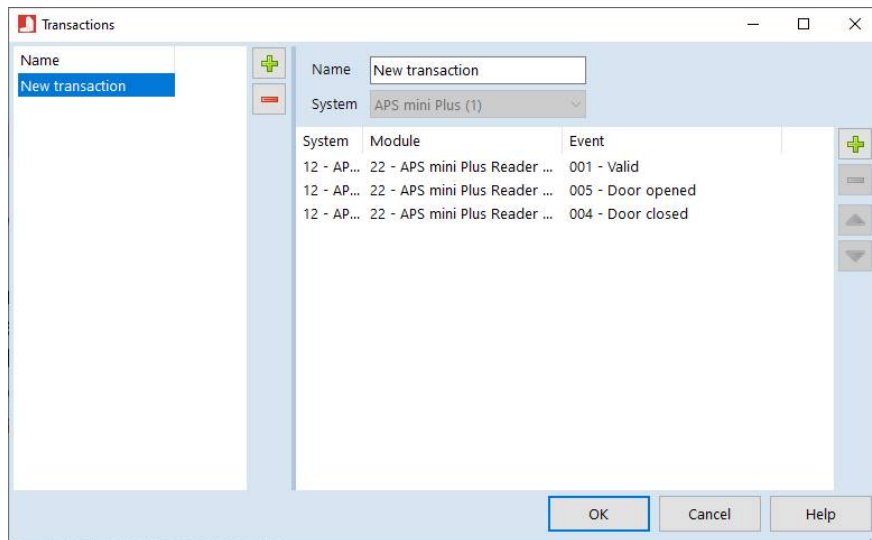
Pic. 3.43: Setting up items to rent

The General tab contains the option to disable or enable the entire agenda.

The Things to borrow tab then contains a list of things that can be borrowed. Things can be edited, added, deleted, and removed by people if they currently have them on loan.

3.16. Transactions

Transactions (Pic. 3.44) are defined as a sequence of arbitrary events in the access control system. When the first transaction event occurs in the system, the software monitors whether the events from the defined sequence will follow in the specified order. If so, the server writes a *Complete Transaction* event to the events archive otherwise an *Incomplete Transaction* event.



Pic. 3.44: Transactions

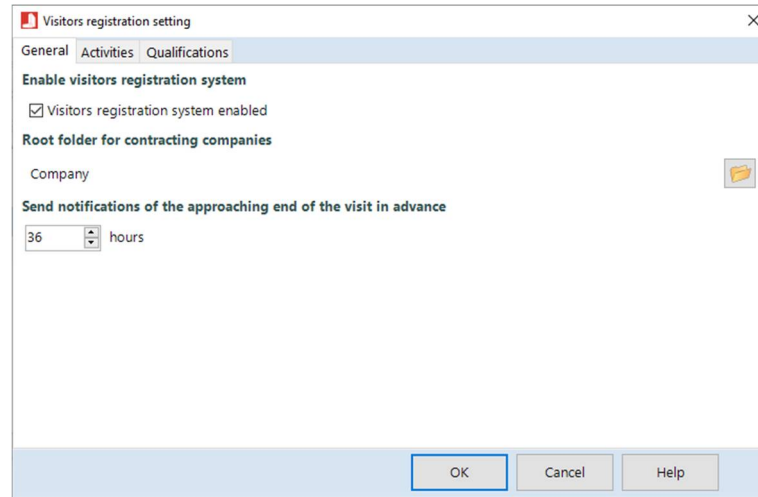
The list of transactions is located on the left side of the dialog. The plus and minus buttons are used to add a new or remove an existing transaction.

After selecting a transaction, you can edit the properties of the transaction displayed in the right part of the dialog. When defining a new transaction, it is necessary to select the System in which the events will occur. It is also possible to set the Transaction name.

The lower right part of the dialog contains the sequence of events that define the transaction. The plus and minus buttons can be used to add or remove events from the sequence, and the up and down buttons can be used to change the order in the sequence.

3.17. Visitors registration system

The basic settings of the visit registration system are accessible to persons with the Administrator or Administrator of the visit registration system (*pic. 3.45*).



Pic. 3.45: Visitors registration system

On the **General** page it is possible to enable or disable the Visitors registration system function. It is also possible to select the root folder of contracting companies. This folder and its subfolders are then accessible as contracting company folders in other parts of the system. Furthermore, it is possible to select, in what advance information about ending visit is sent.

On the **Activities** tab, you can manage the activities that contracting company employees can perform. The operation of activities may be conditioned by any number of competencies. The **Automatically assign activity to each created contracting company** determines whether that activity is automatically assigned to a folder that is created as a subfolder of the contracting company root folder.

On the **Qualifications** tab, you can manage the competencies that users can acquire. Part of the definition of competence is its validity - a trained person always acquires the appropriate competence for a given period.

3.18. Connecting to another server

The application can be connected to various servers (and to other access control systems). A change of current server can be performed by **Change of Server** command from the **Configuration** menu in the main application menu. A new server selection will be enabled after the program restart. Other APS systems connection parameters are uploaded from the selected server.

3.19. Program warning messages

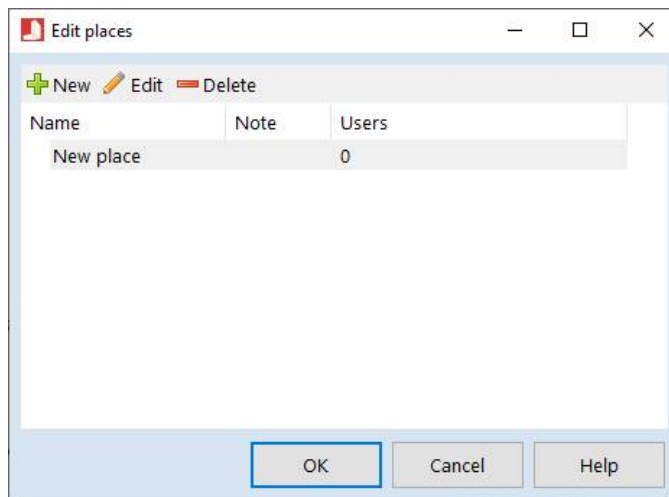
The *APS Administrator* program is able to monitor important operation features of the application and display warning messages in case it discovers some issues. Following issues can be discovered:

- **Database size** issue: if you use Express version of MS SQL Server for data storage, the program displays a warning message, when you reach 75% of the database maximum capacity. The maximum capacity of individual MS SQL Server Express versions is:
 - 2000 – 2 GB
 - 2005 – 4 GB
 - 2008 – 4 GB
 - 2008 R2 and newer – 10 GB
- **Late database backup** – if the database is not backed up after the time interval expires, the program displays relevant warning message.
- **Unsupported hardware** – if the system includes any module from unsupported product line, these modules are not connected and the relevant warning message is displayed.
- **License exceeding** – if you try to upload IDs in connected HW and you exceed its capacity, relevant warning message is displayed.
- **DB version** supported by *APS Administrator* program – if the program supports a newer database version than it is currently connected to, it displays relevant message – the database upgrade can be performed by selecting: Configuration > System > Upgrade.
- **DB version** supported by *APS Server* program – if the APS Server program version does not support the current version of DB, an announcement is displayed and it is necessary to upgrade the APS Server program.

3.20. Places

The *places* setting is pure organizational setting for *APS Administrator.VIS* extension purposes. Defined places can be assigned to visits, and persons assigned to a place is informed about the visit progress.

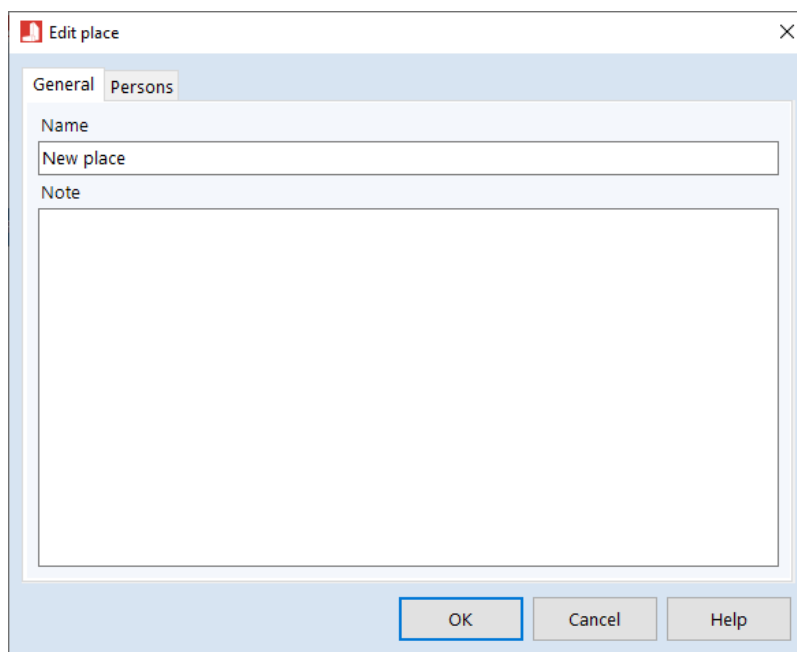
The configuration dialog (*pic. 3.46*) is available after selecting *Configuration > Places*. The dialog contains a *list of defined places* and resources for their management.



Pic. 3.46: Places

For simple management use *New*, *Edit* and *Delete* buttons. The data will be saved after pressing the *OK* button.

When editing a place (*pic. 3.47*) you can define the name and description at the *General* tab. At the *Persons* tab you can use *Plus* and *Minus* buttons to manage the persons assigned to a place.



Pic. 3.47: Edit place

3.21. Kone integration

The program offers options for integrating the ACS with *Kone* elevator system using API connection. The description of the integration is not a part of this guide and is available to partners on request.

All the setting is done in a dialog at *Configuration > Kone Integration*.

3.22. Lots drawing

APS Administrator supports drawing users present in defined zones according to the drawing plan. The drawing is performed by the APS Server, the results are sent to the users with the flag *User is notified about the results of the draw*. The results can be processed either directly in the APS Administrator program or in the WebPanel.

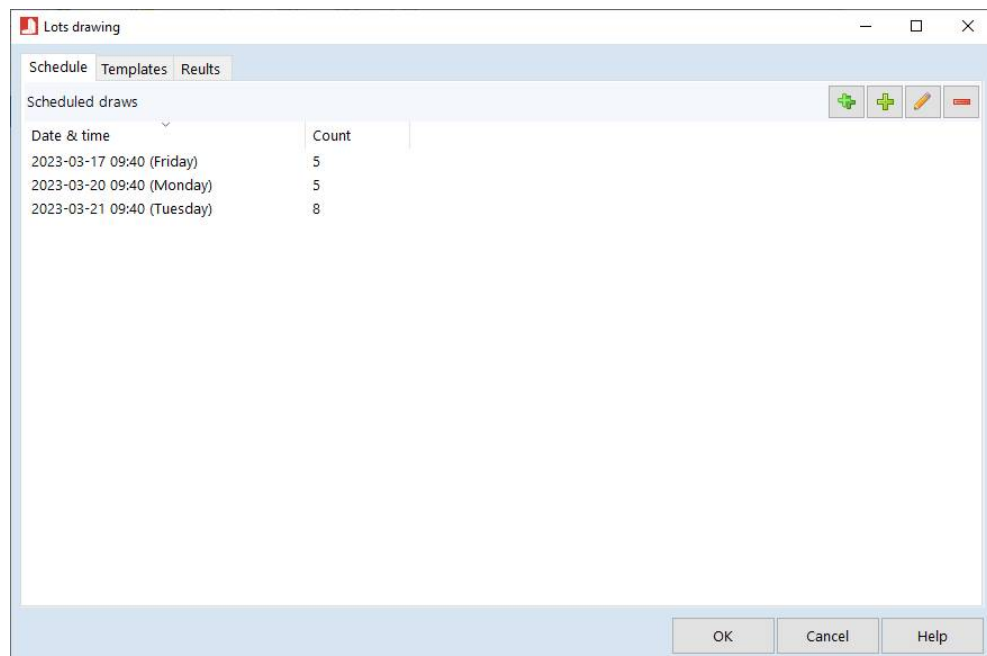
3.22.1. Prerequisites

For the correct function of the lots drawing, it is necessary to properly configure the conditions for selecting the set of users from which the draw will be proceeded and some other parameters:

- Configure *organizational folders* ... users assigned to selected folders can be excluded from the draw (see chapter *3.5 Organizational folders*). By default, all folders are included in the draw.
- Configure *zones of presence* ... only users present in the selected presence areas are included in the draw (see chapter *3.11 Zones of presence*). By default, no area is included in the draw.
- Configure *individual user permission and properties* for users who are to manage the lots drawing or should be excluded from the draws. Individual configuration (see chapter *4.1 User management*).

3.22.2. Planning

Planning the draws is done in a dialog *Configuration -> Lots drawing* (pic 3.48).

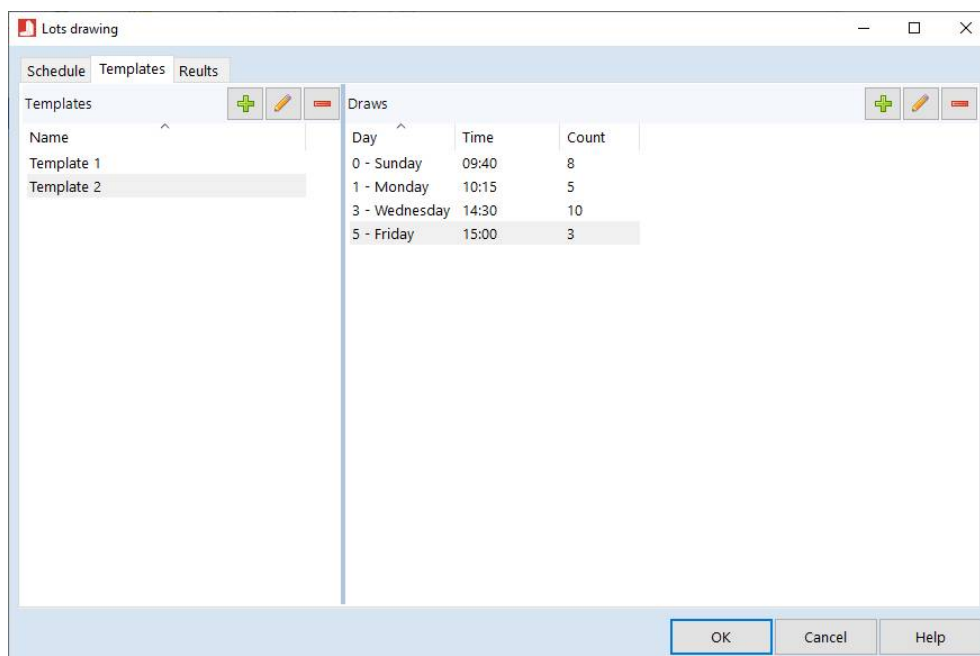


Pic. 3.48: Lots drawing schedule

The draw schedule can be defined either by scheduling individual draws "manually" ("+" button) or by using a week templates ("++" button). In the case of scheduling with the templates, enter the first day from which the template is to be used. The draw is defined by the date, time and number of users to be drawn.

3.22.3. Draw template

The draw template can be used to simplify drawing planning (Fig. 3.49). The template defines the drawing schedule for a general calendar week. It is recommended to create several different draw templates and combine them appropriately during planning so that draws do not repeat at regular times.



Pic. 3.49: Templates

3.22.4. Drawing

The draw is performed by the APS Server program. Notification of the draw is sent to the selected operators by email. It is therefore necessary that the SMTP server is set correctly (see chapter 3.7.7 SMTP server) and that all operators have a correctly set email address.

3.22.5. Evaluation

Entering the results of the tests carried out by the users drawn is possible either in the APS Administrator program (results must be entered by a user with "Draw Administrator" permission, this method is not recommended) or in the APS Web Panel (recommended method). A link to the form for entering the results is sent to the operators by email.

3.22.6. E mail notification template

Similar to other email notifications, you can define a template for the subject (*ltr-draw-done-subject*) and body (*ltr-draw-done-body*) of the email. Templates are edited on the *Source texts* tab of the *Environment configuration* dialog.

Parameters of the e-mail body template

In the template definition can be used 4 parameters:

- {0} ... date and time of the draw,
- {1} ... identification of the draw operator,
- {2} ... list of drawn users,
- {3} ... ID of the draw (part of the link to the results form in the WebPanel).

Example of the template

{0} finished draw

Operator: {1}




A list of users:

{2}

Results form: <http://server/WebPanel/LTREditDraw.aspx?DrawId={3}>

4. User operations


4.1. User management

Every user of APS Administrator software has a *Personal card* assigned. A list of personal cards is displayed in the right panel of the main application window (*pic. 3.1*). A symbol  means the user's access is granted, a symbol  means user's access is denied. Users with no card assigned are designated by yellow color; users with a card assigned are designated with white color. Users with access authorization expired are designated with  symbol and pink color (if the expiration is used).

Personal cards contain 10 tabs – one for personal data (*pic. 4.1*), one for data related to identification (*pic. 4.2*), one for access group assignment (*pic. 4.3*), one for data concerning login to the program and user's authorization (*pic. 4.4*), one for assigning functional buttons to a user (*pic. 4.5*), one for assigning organizational folders to users (*pic. 4.6*), one with user's personal documents management (*pic. 4.7*), one with data bindings to third parties' products (*pic. 4.8*), one tab for displaying and setting online status (*pic. 4.9*) (byte1, byte and Present flags – APS 400 systems only) and finally tab for credit system (*pic. 4.10*).

4.1.1. Personal data

The first tab (*pic. 4.1*) contains basic user data.



The screenshot shows a 'Personal card' window with a tabbed interface. The 'Personal data' tab is active. It contains a photo placeholder on the left and several text input fields on the right. The fields are labeled: Last name, Middle name, First name, Title, Personal number, Job, Site (company), Phone, Mobile phone, and E-mail. The values entered are: Last name: Gates, Middle name: (empty), First name: Paul, Title: MBA, Personal number: 002, Job: lawyer, Site (company): office 2, Phone: 555-12345, Mobile phone: 555-54321, and E-mail: gates.paul@xxxxxxxxxxxxxx.com. There are also '+' and '-' buttons below the photo placeholder. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

Pic. 4.1: Personal data

These are: *last name* (required), *maiden name*, *first name*, *title*, *personal number*, *job*, *site*, *phone*, *mobile phone*, *e-mail*, *photo* (with respect to data traffic between the server and the clients, it is not recommended to use unnecessarily large pictures).

4.1.2. ID and PIN




Second tab of a personal card (pic. 4.2) contains a *list* of assigned access cards, *PIN code* and *Access Restriction* options.

Pic. 4.2: ID and PIN

The *Print* button enables to print a sticker on selected card, if the printing is set up correctly. A PIN code contains 4 digits; its setting is meaningful only when a reader module with a PIN keypad is used.

You can also *Deny Access* with a checkbox and set *Date and time* limitation of user's access and *Exclude user from online antipassback evaluation*. The latter two options are secured by the APS Server program; for this function it is necessary that the system is used in *online operating mode*.

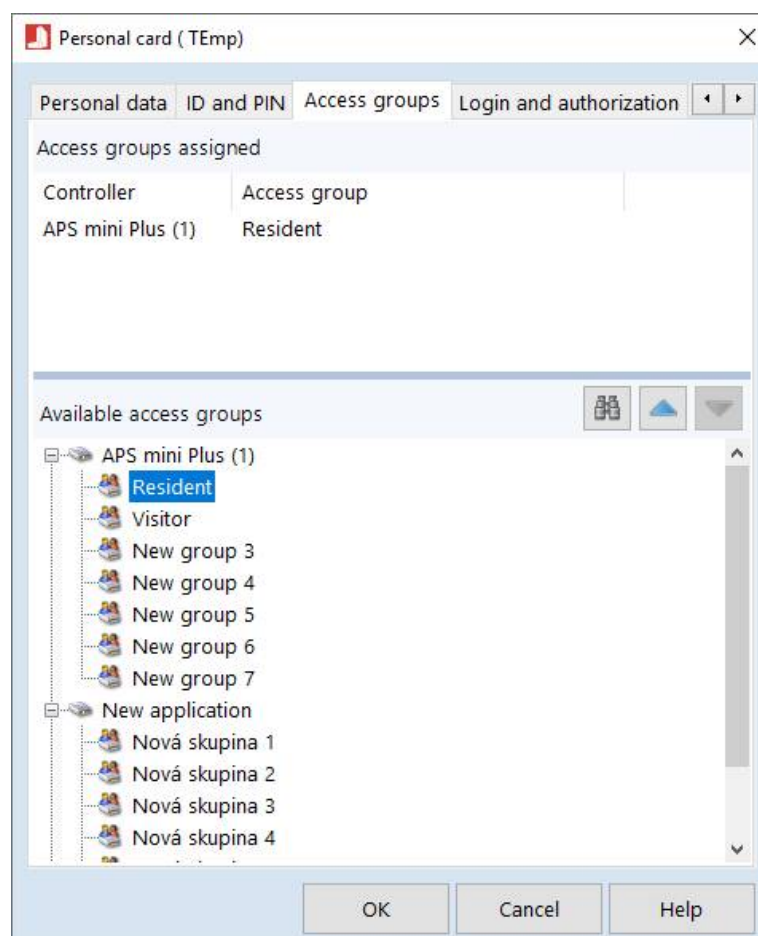
Permanent strike release and lock after double card read options are valid only for *APS Key* system, and if the option is globally enabled.

By button  you can assign a free card to a user, by button  you can release an assigned card. By button  you can change card description.

Note: Access rights expiration is not a function of access control hardware equipment. It is used when downloading access rights to a system. Expired cards and blocked users are considered as unknown. Visitors' cards are deleted automatically from the system by APS Server program when the card expires. Usage of cards date and time limitation is described in *Program configuration – System configuration – Identification tab*.

4.1.3. Access groups

The third tab of a personal card contains a list of access groups, which define *user's access rights in the system* (pic. 4.3).

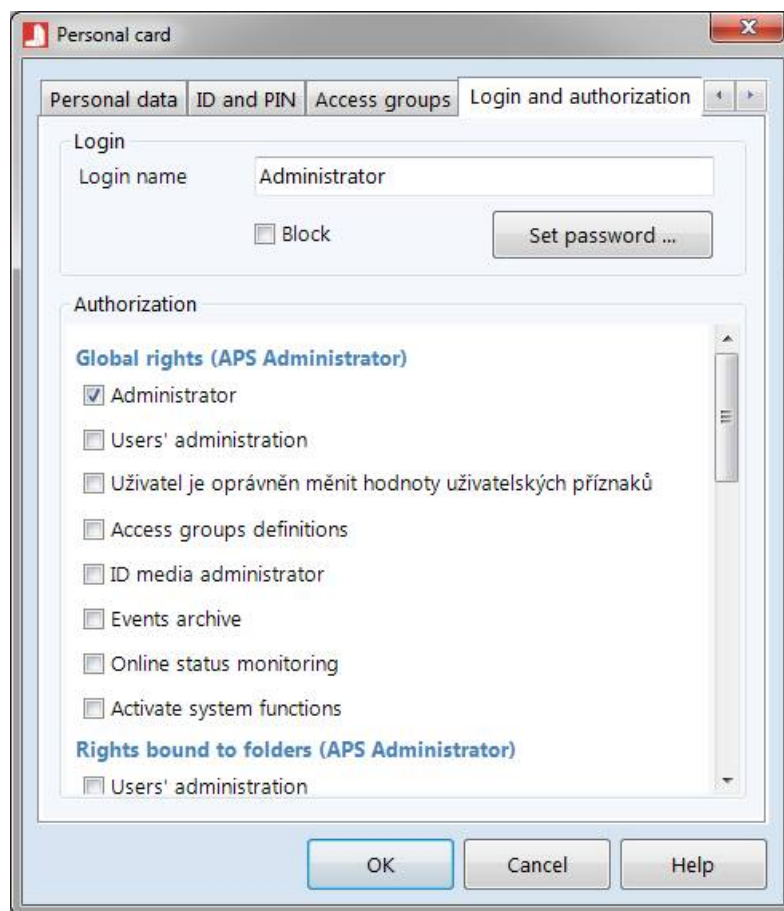


Pic. 4.3: Access groups

Only *one access group per system* can be assigned to a user. Also, there is a search option available after pressing the binocular button, which searches across the access groups.

4.1.4. Login and authorization

Login and authorization tab (pic. 4.4) enables settings of following parameters:



Pic. 4.4: Login and authorization

Program *login name* (it has to be unique within the database), *password*, program login *blocking*, authorization to system functions and authorization to extension software modules usage.

Global rights (APS Administrator)

- Administrator – full access in all APS Administrator program package parts
- Users' administration – user is able to manage users in all folders (create, delete, change user data, including user IDs administration, user group assignment, access rights assignment (up the logged user level)), and change all folders setting – users-folders link, and access groups-folders link.
- Change user flags values – enables to change the user flags values for all persons
- Access groups definitions – can define access groups for all systems inserted into database
- ID media administrator – can manage ID media (insert IDs, edit IDs, release IDs, delete IDs, change ID flags, etc.)
- Events archive – can run the Events archive and Events online program modules, full access to systems and users in those modules
- Online status monitoring – can view online visualization of all connected systems
- Activate system functions – can activate system function in all connected systems
- Privilege to run data transfer – can upload data from database to connected systems

- GS module configuration – can configure APS Administrator.GS program setting

Rights bound to folders (APS Administrator)

- Users' administration – user is able to manage (create, delete, change user data, including user IDs administration, user rights and folder rights of the user)
- Change user flags values – user is able to change the user flags values of the persons, which are saved in the folders he is authorized to work with
- Change time zones parameters – user is able to change the time zones parameters of the time zones, which are assigned to the folders he is authorized to work with
- Events archive – user is able to use events archive; he is able to see events related to users belonging in folders he is authorized to work with; furthermore he can see events related to systems and modules, which are assigned in access groups, which are assigned to folders he is authorized to work with.
- Online status monitoring – user is able to run visualization of systems and modules, which are assigned in access groups, which are assigned to folders he is authorized to work with.
- Activate system functions - user is able to run system functions in systems and on modules, which are assigned in access groups, which are assigned to folders he is authorized to work with.

Other rights are bound to specific APS Administrator program package extensions, their exact meaning is described in individual user's guides to these extensions:

Time & Attendance

- Time and attendance administrator
- Time and attendance operator
- User is authorized to modify his T&A data (T&A.WEB)

Visitors management (APS Administrator.VIS)

- Visitors' cards issue
- Spare cards for residents issue
- User is privileged to set a new photo for residents

Guard tours monitoring (APS Administrator.GT)

- User is operator of the Guard tours monitoring module
- User is administrator of the Guard tours monitoring module

Parking (APS Administrator.PM)

- User is operator of the Parking management module
- User is manager of the Parking management module

APS Administrator.OPN

- Edit all users' status

Credit system (APS Administrator)

- User is administrator of the Credit system module
- User is operator of the Credit system module

Visitors registration

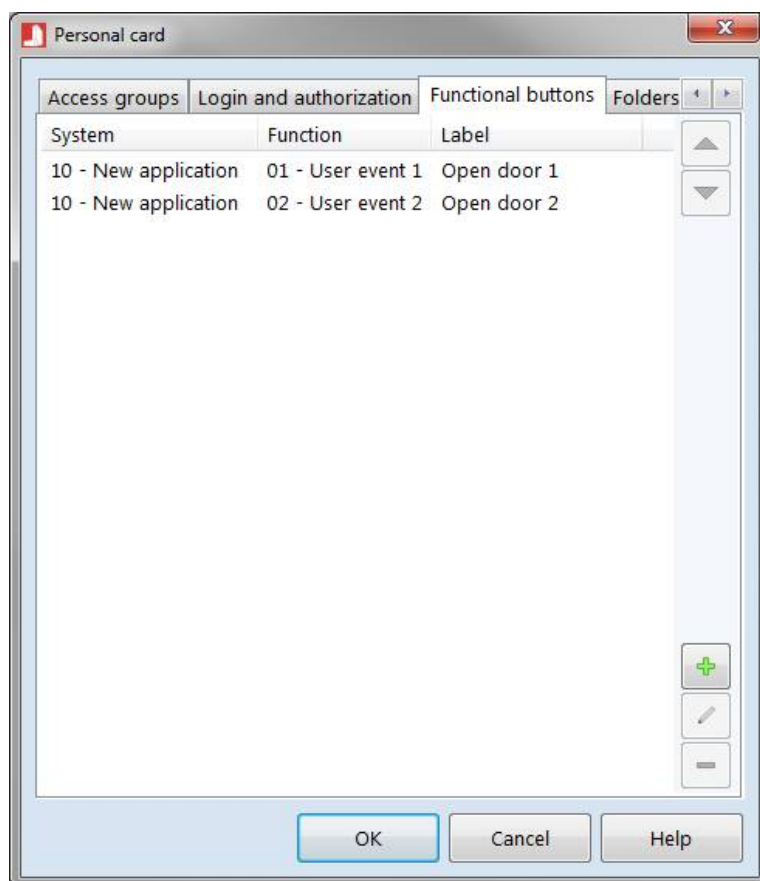
- User is administrator of the visitors registration system
- User is manager of the contracting authority
- User is a responsible person

Lots drawing

- User can display results of the draw
- User is lots drawing administrator

4.1.5. Functional buttons

The functional buttons (*UserEvent* of the APS 400 system and *Remote door open* command of the APS mini Plus system) can be assigned to a user at the Functional buttons tab (pic. 4.5).



Pic. 4.5: Functional buttons

These buttons can be used by the user in selected program extensions.

4.1.6. GDPR

The system enables to monitor and evaluate the validity of user personal data processing consent. The tab (pic. 4.6) contains the GDPR agenda setting for selected person.

Personal card (TEmp)

Login and authorization Functional buttons **GDPR** Folders Persc

GDPR setting

☐ Do not monitor GDPR agenda for the person

GDPR consent

Consent expressed:

GDPR email

Email sent: Send email

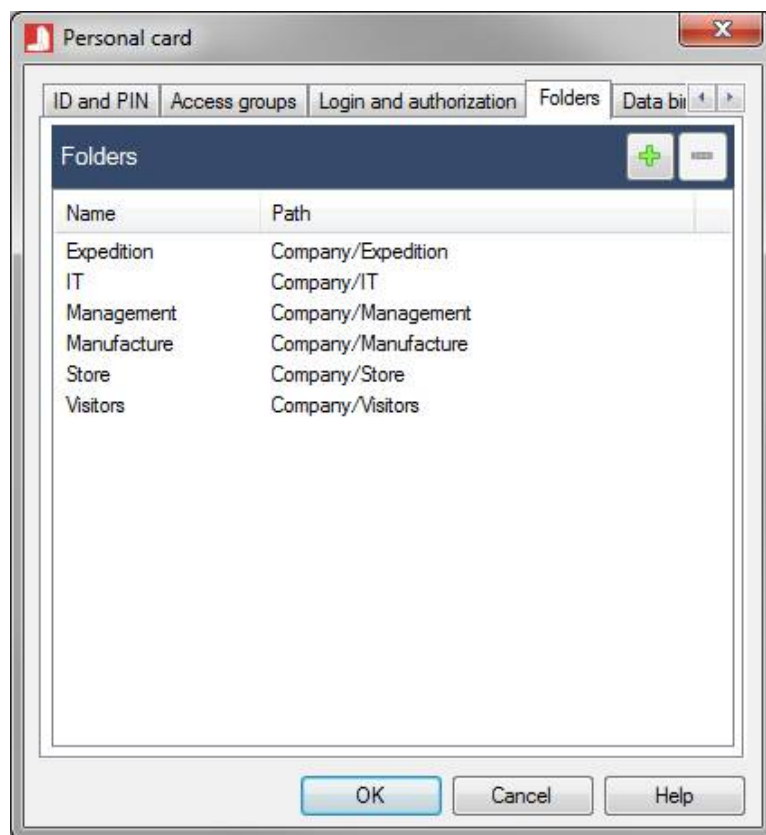
OK Cancel Help

Pic. 4.6: GDPR

The option *Do not monitor GDPR agenda for the person* means, that the GDPR consent evaluation will not be applied to the person. By pressing the *Send email* button, you can send an email with personal data processing consent to the user.

4.1.7. Administration

The *Folders* tab (pic. 4.7) enables to assign organizational folders to the personal card.

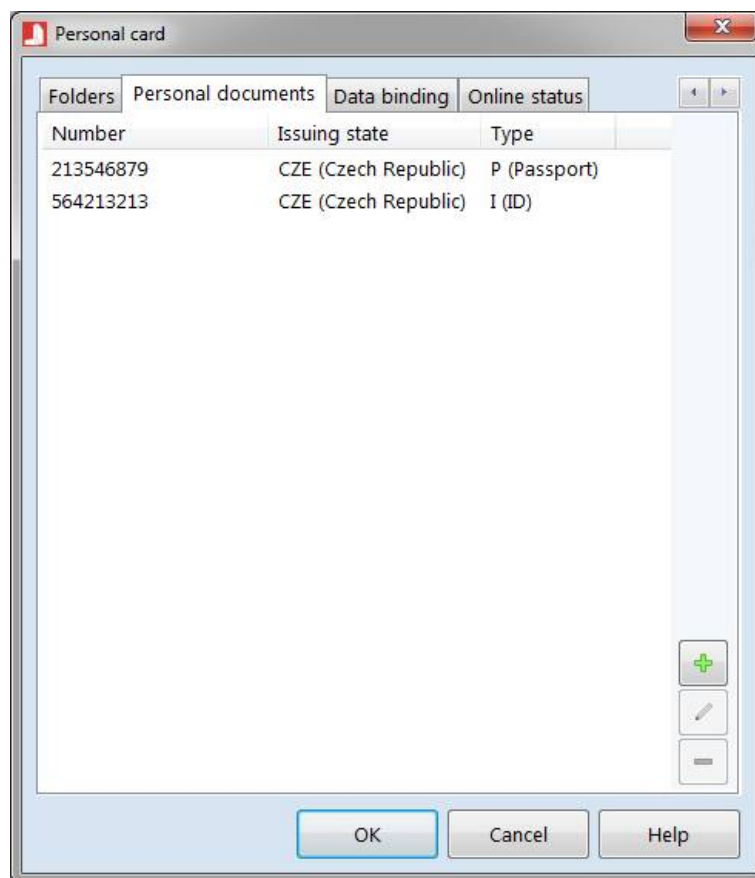


Pic. 4.7: Folders

All data bound to the folders are applied only on data contained in the folders, which are assigned to the personal card.

4.1.8. Personal documents

The *Personal documents* tab (pic. 4.8) is used for person's personal documents management.



Pic. 4.8: Personal documents

To add, change or remove a document, use the *plus* (add a document), *pencil* (change selected document) and *minus* (remove selected document). You can use connected personal documents USB reader connected using *ID Microserver 2* program for the personal documents management.

4.1.9. Data Bindings

Next tab of a personal card (*pic. 4.9*) contains data bindings for further processing of user data in APS programs or in third parties' products.

Personal card

Login and authorization Folders Data binding Online status

Keys

Internal key 3

External key 1 0 External key 2 0

Card flags (APS 400)

Byte 1 0 Byte 2 0

☐ Swap bytes on automatic setting.

User flags

☐ User flag #1 ☐ User flag #3

☐ User flag #2 ☐ User flag #4

Rooms

Designation	Note	Re
-------------	------	----

OK Cancel Help

Pic. 4.9: Data binding

Internal key contains the value of user's identifier in the APS400nAdministrator database.

It is possible to set **External keys**, which are usually used for saving primary index of the person in external database.

Moreover, it is possible to work with the **card flags**, which can be further used and processed in the scripting program for **APS 400** system.

A deeper knowledge of the system is required for data bindings setting. We don't recommend changing the values of external keys.

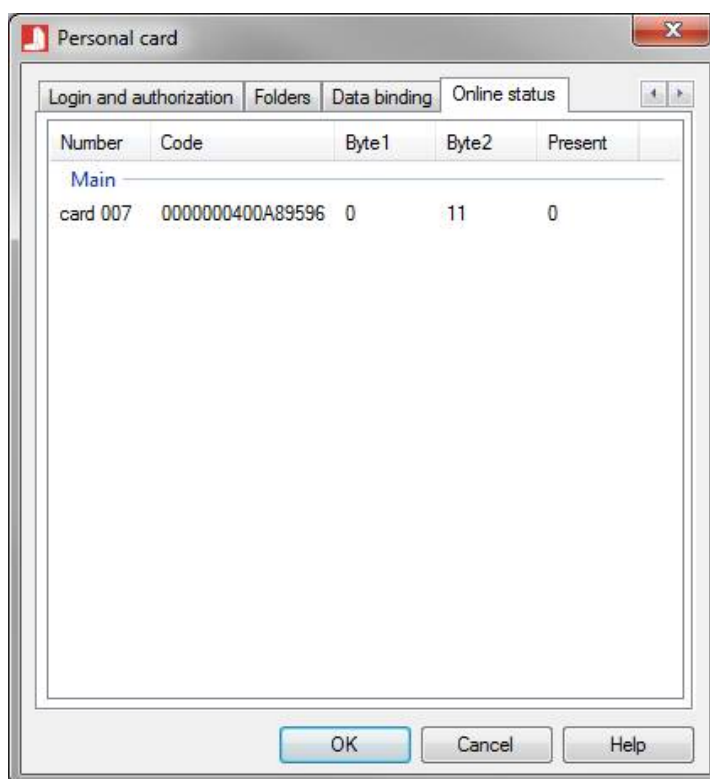
The **User flags** are typically used for communication with third parties' programs, which require some specific information (e.g. user is allowed to use / not allowed to use specific item, function, etc.).

The **User flags** can also be set en masse, when you select multiple users in the main window, raise the context menu and select the **Edit user flags** (Alt+F) option.

The last option is to **assign/remove** the person from the list of persons, which are bound to the specific room (users presence in rooms issue).

4.1.10. Online status

Next tab (*pic. 4.9*) enables to read and set the values of ID flags (byte1, byte2 and Present flag) for APS 400 systems.

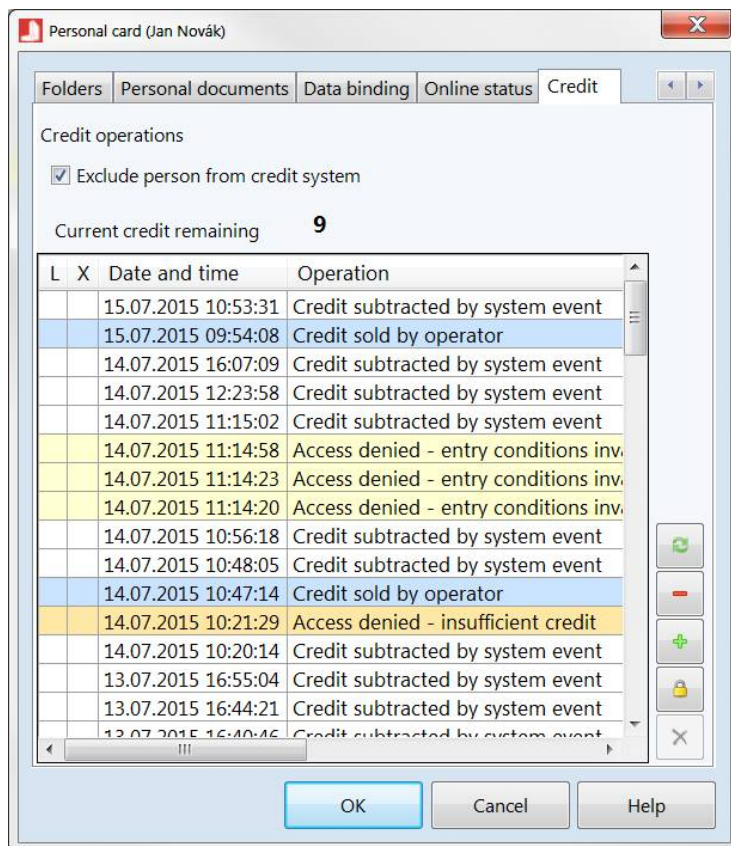


Pic. 4.9: Online status

After the values editing is finished, the values are transferred in the system controller.

4.1.11. Credit

The last tab "**Credit**" (pic. 4.10) enables to manage the credit of the user.



Pic. 3.11: Credit

The credit system module is licensed extending program module. The function is not evaluated without valid license (CR and ACS.ONLINE).

For comfortable management of the credit system it is suitable to use extending software **APS Administrator.CR** which combines all the necessary functions of the credit system module in one complex software. The **APS Administrator** enables to set basic functions of the credit system.

When the item **Exclude person from credit system** is checked, the access of the user will not be evaluated by the credit status.

The tab displays the current credit status and credit operations of the user.

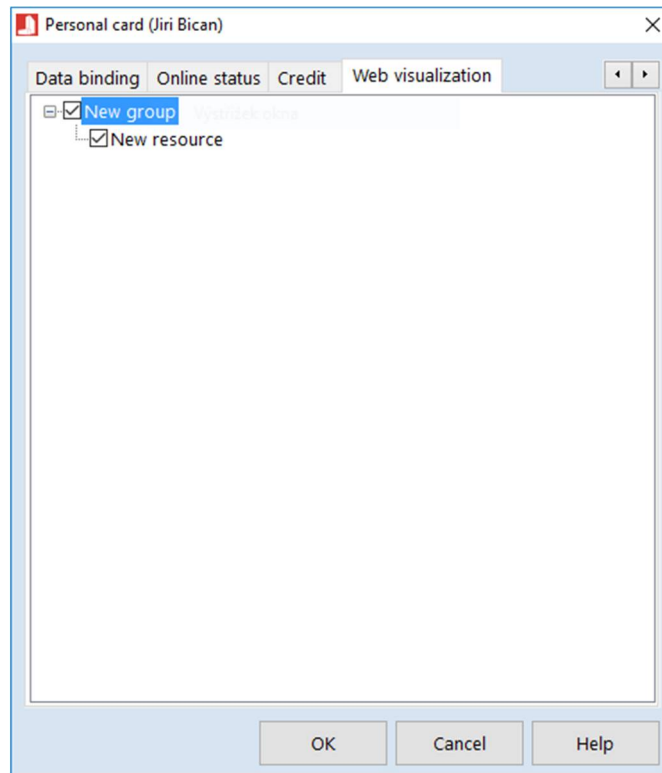
There are function buttons for basic credit operations in the right bottom corner of the tab:

- Refresh – refresh list of the credit operations.
- Enter credit use operation – Subtracts credit (One credit per one operation).
- Sell credit to user – Sells the required amount of credits.
- Lock credit operations – Lock credit operations (The passed operations cannot be canceled).
- Cancel selected credit operation – Cancel selected operation.

When entering any new operation you can insert a describing note, which will be visible in the list of operations.

4.1.12. Web visualization

Individual resources or the whole groups can be added to users at their *personal lists* in bookmark *Web visualization* (pic. 4.12).



Pic. 4.12: Web visualization

You can select a resource or whole group. One resource can be added to multiple users.

4.1.13. Visitors registration

At this tab it is possible to set the agenda for visitors registration system (EHS) (*pic. 4.13*).

Personal card (TEmp)

Online status Credit Web visualization **Visitors registration**

Contracting authority of activities

Name	Description	Validity
tmep		13.06.2020

Trainer of qualifications

Name	Description	Validity
------	-------------	----------

OK Cancel Help

Pic. 4.13: Visitors registration

At the **Visitors registration** tab you can assign a right to create new contracts (person with authority to assign at least one activity) and assign the activities to the contracts. The right is limited with expiration date setting.

Furthermore, you can grant right to assign qualifications to persons (trainer of qualifications). This right is also limited with expiration date setting.

4.1.14. Lots drawing

On the lots drawing tab can be set the individual user properties related to the draw:

- User is notified about the results of draw
- User does not participate in the draw

Note: If the user should process the draw results, **valid email address** must be set in the Personal data tab.

4.1.15. Moving personal cards between folders

Moving personal cards to another organization folder can be done using a mouse similarly as in Windows explorer. Revise access rights setting after moving personal cards!

4.1.16. Mass parameters setting

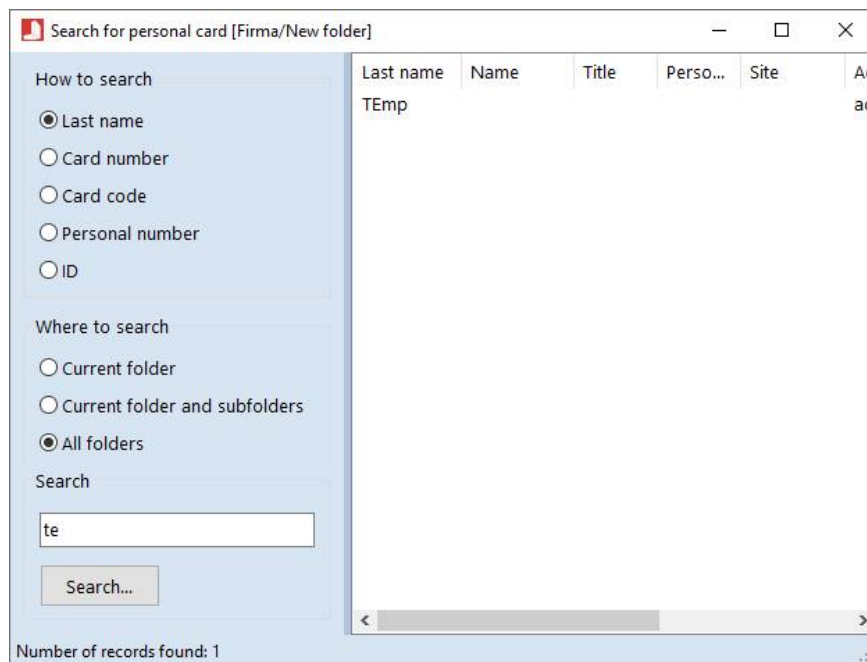
It is possible to set some parameters of personal cards en masse:

- List of access group assignment (can be copied using the clipboard).
- Assign and release cards (release IDs of the user)
- Access rights date validity (from – to).
- Site and Function fields setting.
- User flags setting.
- Presence flags reset – deletes user assignment in a zone (this mechanism is able to reset the user flags for the *Antipassback* function purpose)
- Access allowing and denying
- Login allowing and denying
- Automatic login data creation (and printing)
- GDPR agenda

The commands are available in a context menu of the list of personal cards – select desired personal cards first.

4.1.17. Searching for personal cards

Searching for personal card dialog window (pic. 4.14) is displayed by a **Search** command from **Personal Cards** dialog in the main application menu.



Pic. 4.14: Search for personal card

Searching conditions are as follows:

- Last name
- Card number
- Card ID
- User personal number
- ID

A serial microreader can be used for card ID input when searching by a card ID.

Searching can be made either in all organization folders (logged user is authorized to) or in a current folder (and subfolders) only.

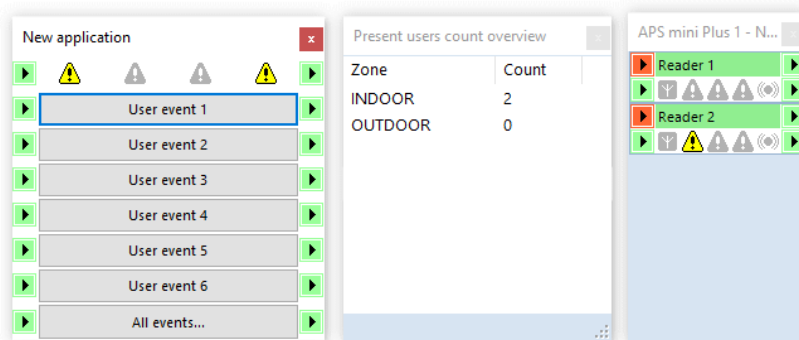
The database is searched by pressing the **Search** button. Results are placed in a table located in the right part of dialog. The dialog is closed after clicking the required personal card and the personal card is selected in the personal cards list in the main application window.

The result set contains only data, which are accessible for logged user.

There is possible to search the user on the main window of the program using the microreader and the user's ID. This function is described in chapter 0.








4.2. Online system status visualization¹⁾

Simple visualization tool which is a part of administration software can be used instead of expensive alarm graphics in some applications, where periodical system supervision is required. Three commands for status display of a *Controller*, *Network modules*, *Power suppliers* and *count of users present in defined zones* are available in the *Visualization* menu of main application menu (pic. 4.15).



Pic. 4.15: Online system status visualization

Meaning of particular icons is as follows:

-  ... Statuses of inputs (on the left) / outputs (on the right); green = open, red = close.
-  ... Warning; grey = not active, yellow / red = active.
-  ... Beeper status; grey = switched off, red = switched on.
-  ... Input ID; green = valid, blue = invalid, red = unknown.
-  ... AC current status of power supplier; green = mains O.K., red = loss of mains.
-  ... DC current status; green = DC O.K., black = DC switched off, DC overloaded.
-  ... Battery status; green = battery O.K., red = battery discharged, black = battery not connected.

Buttons located inside the controller visualization window activate system user functions. If disabled, appropriate function is not used.

A color of areas displaying the names of network modules and power suppliers indicates module communication status on a system bus:

- Green = normally communicating module.
- Red = controller is trying to establish communication.
- Grey = disconnected modules.

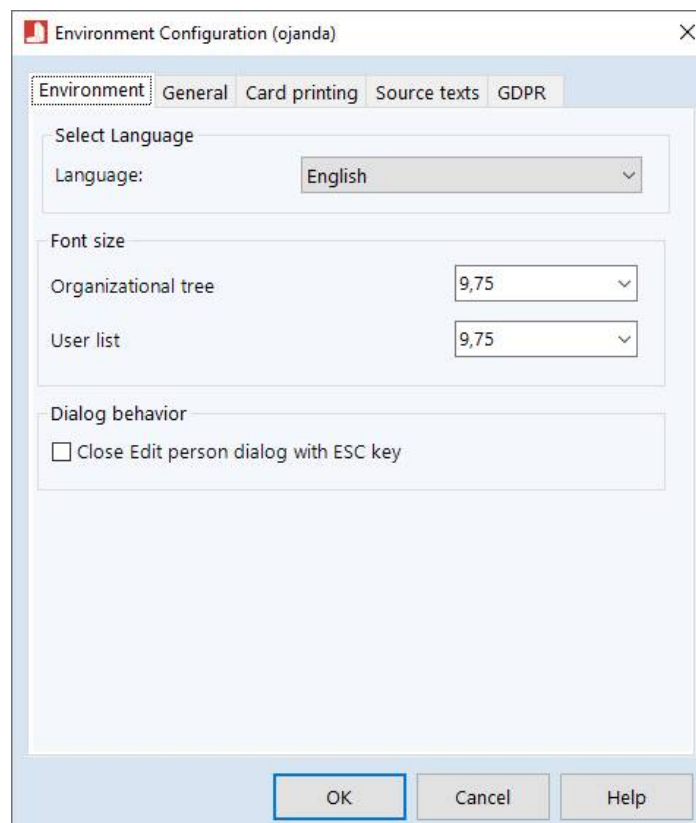
Note: If the logged user is authorized to run system functions, he can run defined User events at the system controller, turn off, on and restart the system power supplier, and run Remote door open command at APS mini (Plus) readers (all commands are available in the context menu of relevant visualized element).

4.3. User program setting

Some settings are bound to a logged user and current PC where the application runs. Configuration dialog can be opened by selecting *Environment* command from *Configuration* menu in the main application window.

4.3.1. Environment

This page allows the user to change the language of the program and the size of used fonts (*pic. 4.16*).



Pic. 4.16: Environment tab

Furthermore, you can select, if the window can be closed with ESC key when editing a personal card.

4.3.2. General environment setting

The **General** tab (pic. 4.17) enables parameters for a local reader connection configuration, an instant connection to APS Server program setting.



Pic. 4.17: General tab

Local reader connection

A connection to a local micro-reader is realized via **ID Microserver** program. The server supports the communication with a reader and provides all data entered with a reader to connected clients via TCP/IP. This solution enables using the microreader by multiple client programs at the same time and also connecting to a microreader for computers without proper HW equipment for a microreader connection.

Detailed description of drivers, setup and configuration for various types of readers is available at (<http://www.techfass.cz>).

To connect a local reader, configure the ID Microserver program to handle it. Then go to the **Environment configuration**, select Local reader properties and check Use local reader checkbox. US the **IP address** and **IP port**, where the ID Microserver program is listening.

Local reader can be used in all dialogs, where the card ID can be entered.

The checkbox **Find personal card after read id** allows to find a user on the main window of the program using his ID.

Connection to communication server

If it is required that the APS Administrator program should connect to the communication server immediately after the program start, check the *Connect to server immediately* option.

History of SQL connections

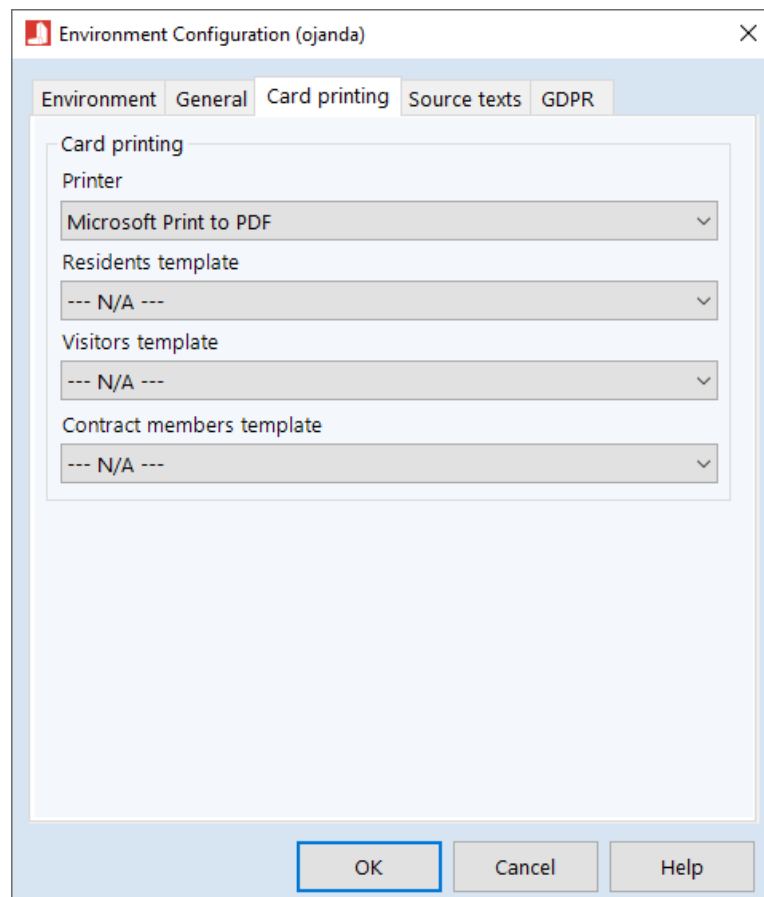
The APS Administrator program stores the configuration of every successful connection attempt. When setting up the connection, user can select from this list of former connections (and other SQL servers visible on network). If you want to delete the history of successful connections, press the *Delete history of connections* button.

Folder monitor

This option is related to specific customer application and it is not meant for general usage.

4.3.3. Card printing

At the *Card printing* tab (pic. 4.18) it is possible to set up a printer, which will be used to print the stickers on cards.

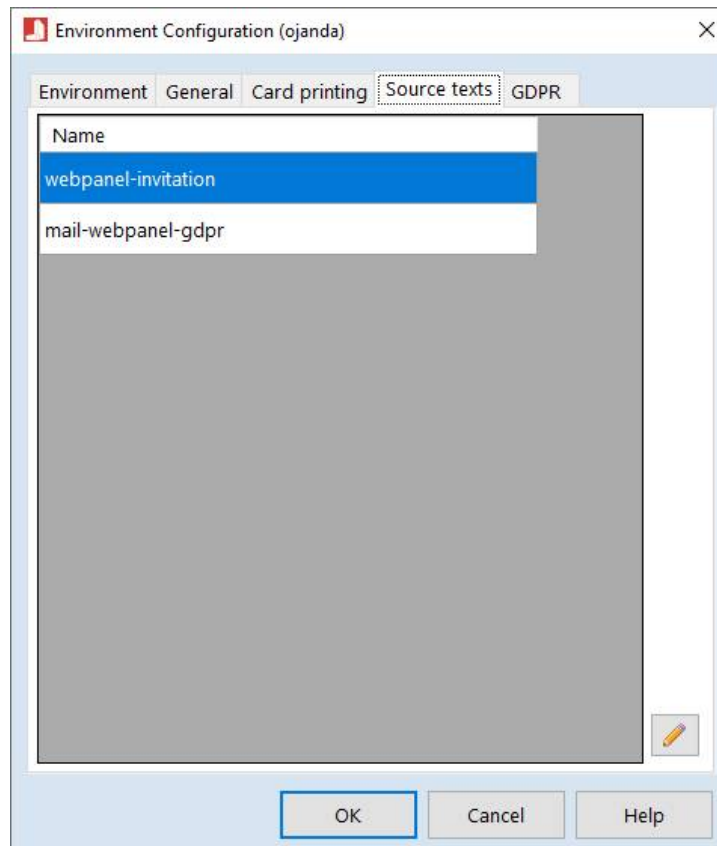


Pic. 4.18: Card printing tab

Furthermore, it is possible to create templates for individual cardholder types: residents, visitors, and contract members. The templates themselves are created in Card print designer program.

4.3.4. Source texts

At the Source texts tab (pic. 4.19) it is possible to set up a template text for emails.



Pic. 4.19: Source texts tab

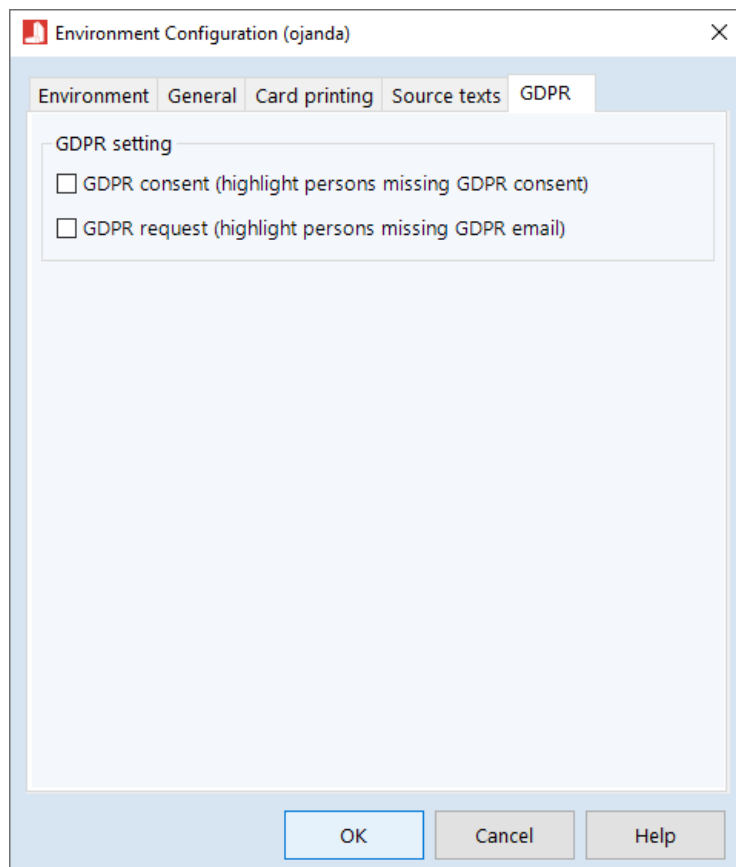
The first source text is an invitation to APS Web Panel application *webpanel-invitation*. The second text *mail-webpanel-gdpr* is a request for user consent to personal data processing. The evaluation mechanism also uses the APS Web Panel web app.

Another 10 texts (starting with ehs-) are used as formatting strings for information emails used to inform about a visit progress in EHS.

When editing the text keep in mind not to change the text structure, and to keep the replaced texts "{#}" meaning having same purpose as in the original texts.

4.3.5. GDPR

At the **GDPR** tab (pic. 4.20) it is possible to set up general setting of GDPR consent evaluation.



Pic. 4.20: GDPR tab

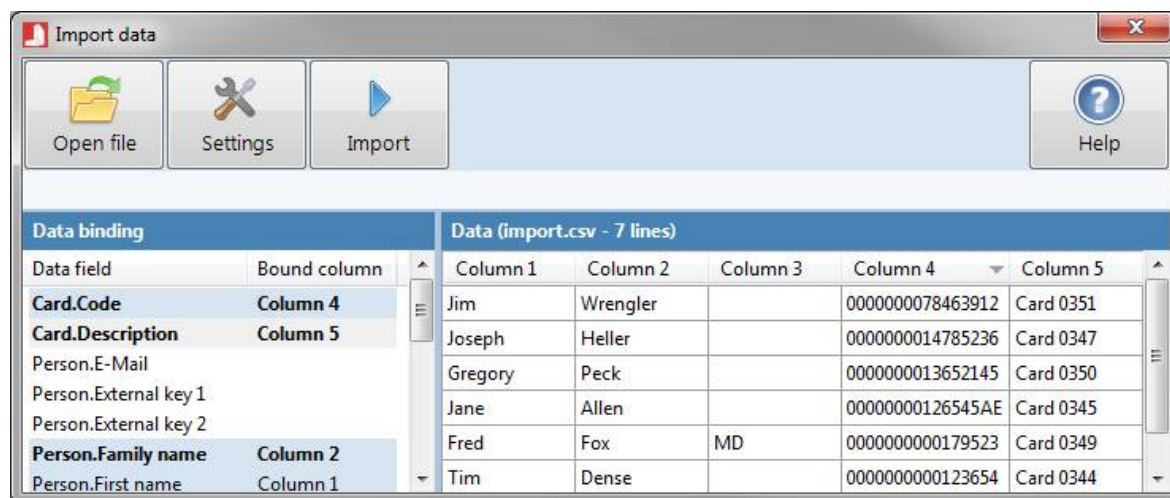
The GDPR setting enables to select, which users will be highlighted in the program main window. This can be the users without a valid GDPR consent, or even users with no mail for GDPR consent sent.

4.4. Import and export of user data

User data import and export functions are available in the main menu: **Program > Data import / export > Import personal cards / Export personal cards**. Both mechanisms are described below. Older import options are preserved; you can find them in the same menu in **Old export/import functions** selection.

4.4.1. Import personal cards

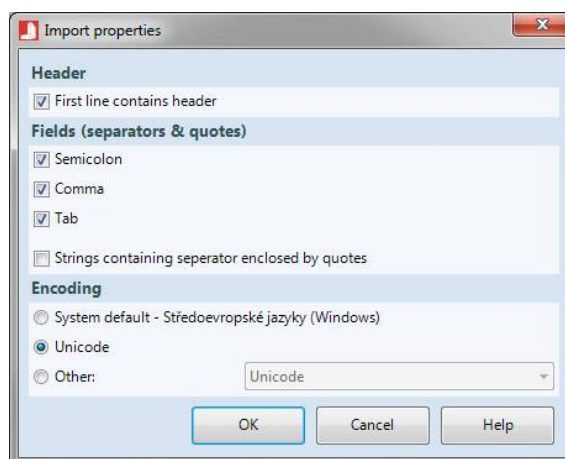
A dialog for settings of personal cards and data import is displayed in *pic. 4.21*.



Pic. 4.21: Personal cards and data import

The data file for import has to be prepared in **CSV** (comma separated file) format. The import file can be selected in a dialog displayed after pressing the **Open** button.

After opening the file, it is necessary to define correctly the file structure in the **Import properties** dialog (*pic. 4.22*), these can set after pressing the **Settings** button.



Pic. 4.22: Import properties

If the first line contains a header with columns description instead of user data, check the **First line contains header** option.

After that field separators have to be selected, user can choose among **Semicolon**, **Comma** and **Tab** entities. Be aware of the fact that the field separators must not be contained in the data field texts unless enclosed in quotes. If there is such text, alter the source file and enclose texts in quotes and select the **Strings containing separator enclosed by quotes** option.

The last option is to select the **Encoding** of the file. If the file is saved with nonstandard encoding, select it in the Encoding area. After selecting proper encoding option the data in the Import data dialog should be readable with no errors or unknown characters.

Next step is assigning columns of the imported file to the proper data fields of the *APS400nAdministrator* database tables. The assignment is done by drag-and-drop mouse operation starting in Data binding list with proper field and ending in Data area at proper column.

The program enables to fill in following tables' data fields during the import operation – fields designated in *red* are obligatory. If you want to *import only users without access cards and IDs*, do not assign any field from the *Card* table. Contrarily if you want to *import only access cards and IDs without cardholders* (users), do not assign any field from the *Person* table.

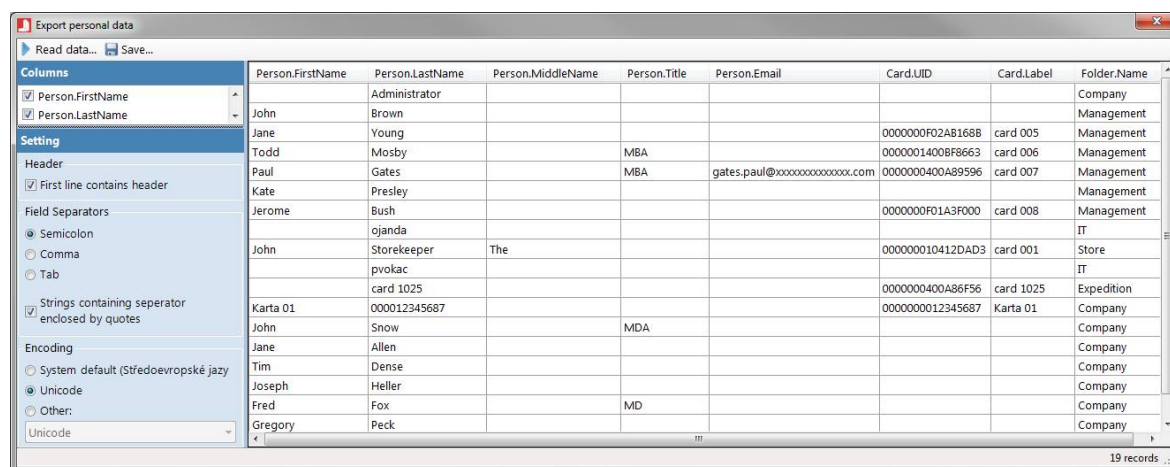
- Card table: *Code*, *Description*
- Person table: E-Mail, External key 1, External key 2, *Family name*, First name, Function, Login name, Login password, Maiden name, Mobile, Personal number, Phone, PIN, Title, Workplace

After finishing the settings, you can perform the import by pressing the *Import* button.

If some of the data cannot be processed in the import, the entire import is canceled and *inconvenient cells are highlighted*. Rows containing such cells must be fixed or excluded from the source file before the import can be run.

4.4.2. Export personal cards

Dialog for personal cards and data export is displayed in *pic. 4.23*.



Pic. 4.23: Export personal data

The exported file is saved in a *CSV* format according to preset settings.

First it is necessary to select the exported file format.

If you want to place a line with column designation on the first row (header), check the *First line contains header* option.

Select *Semicolon*, *Comma*, or *Tab* as data field separator. Furthermore it is possible to set the *Strings containing separator enclosed by quotes* option.

The last option is to select the file *Encoding*. We recommend to use one of the standard formats (system default, Unicode, UTF-8, etc.).

After setting the options, select the data fields from the APS400nAdministrator tables for export. You can select from following data table fields, usual and most important data used for export are designated with *red*.

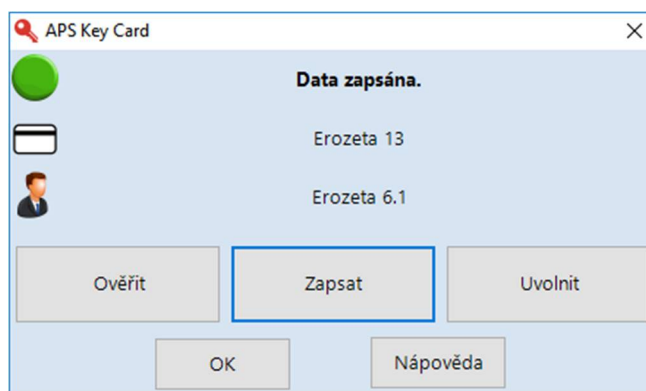
- Persons table: *FirstName*, *LastName*, MiddleName, Title, Site, Job, PersonalNumber, Phone, MobilePhone, Email, ExpirationDate, Workload, ExternalKey1, ExternalKey2, CardByte1, CardByte2, LoginName, LoginPassword, PIN, ID
- Cards table: *UID*, *Label*, ID
- Folders table: Name, ID
- Access groups table: Name, Number, UserNumber, ID
- Systems table: Name, ID

If a single person possesses multiple records corresponding with the criteria selection, it is contained in the result multiple times.

The resulting file can be furthermore used as a standard CSV file, it can be easily imported e.g. in another APS400nAdministrator database.

5. APS Key

In this window (pic. 5.1) you can upload access rights on the **APS Key** access cards.



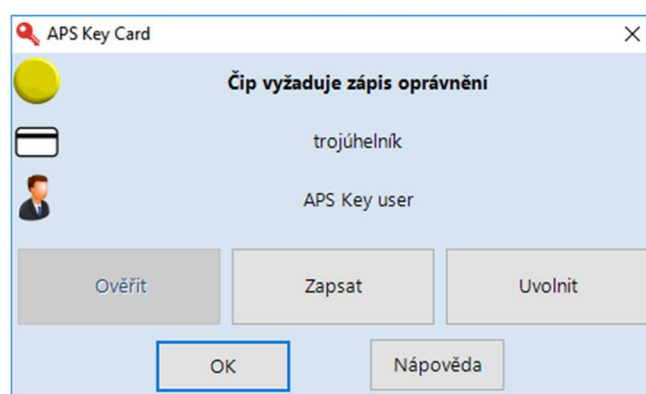
Pic. 5.1: Working with APS Key card

For the correct functionality you need to have microreader **REM 181.USB** connected and correctly configured **ID Microserver 2** running.

Access cards need to be added to the system first due to part 6.2 of this document.

After placing a card which is added to the database and added to a user with at least one access group to the **microreader** the option **Write** is enabled. Selecting this option writes access data to the card and locks the card for unwanted foreign interference.

When placed a card with already written access data the option to **Verify** and **Release** is enabled. The system itself checks if the access rights have changed since last writing to the card and indicates it by the color of the circle in top left corner and a description (pic. 5.2).



Pic. 5.2: Working with APS Key card

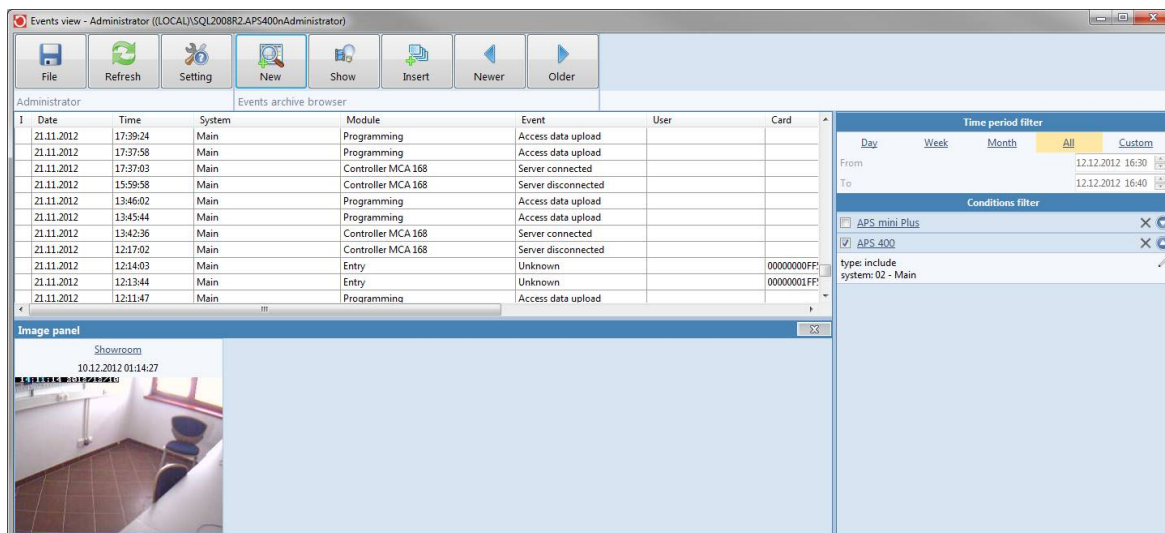
The button **Verify** checks the correctness of the data written in the card.

The button **Release** deletes all the access data from the card and unlocks it.

6. Basic extending tools for APS Administrator

6.1. Access control system events archive

All operating events, which happened in the system and were read by the APS Server and saved into database, are available for further view and operation. To work with the archive of operating events there is the *Events archive* program module (pic. 6.1).



Pic. 6.1: Events archive

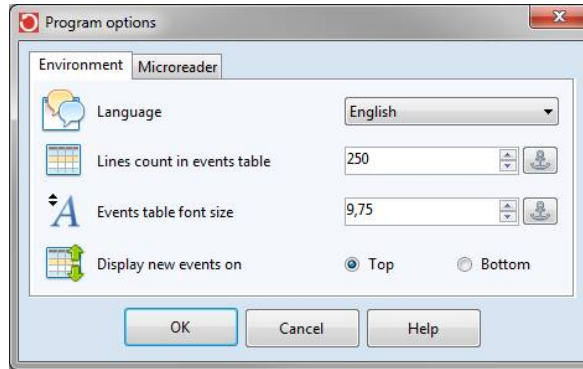
The program can be also run by pressing the *Archive* button located on the top toolbar of APS Administrator program. Only users with *Administrator* or *Events archive* authorization are authorized to enter the events archive. User, having this right *bound to an organizational folder*, can see only modules, which are assigned in an access group, which is assigned to a folder, which is accessible to the user. Furthermore he can see only events of users, which are assigned in the folder accessible to the user.

6.1.1. Setting of the Events archive module

The setting is available in the main (top) menu by selecting Setting – options.

In displayed dialog you can choose

In displayed dialog (pic. 6.2) at the *Environment* tab you can select the program Language, define the *count of lines* displayed on single archive page, change the *font size* used in events archive table, and define the *order* of events displaying – new events on *Top* or *Bottom*.



Pic. 6.2: Events archive options

At the **Microserver** tab you can choose if the events archive should use the local reader connected to a PC. To use the local reader set up the reader operation in the **ID Microreader** program; after that set the **IP address** and **IP port** of the **ID Microserver** program at the **Microreader** tab. Also check the **Use microreader** option. The function can be instantly verified by checking the **Test** option and presenting the card at the microreader; its code should appear next to the **Test** checkbox.

6.1.2. Displayed events

To display events with preset conditions, press the **Refresh** button.

The program enables to select two types of **event filters**. The first type is a **time filter**, which causes that only events, which happened in a specific time period, are displayed. The second type is a **set of constructed conditions**, which are required to be fulfilled or disobeyed by displayed events.

If some of the displayed events have an **image attached** (saved based on the rules for image from IP camera saving), there is a relevant **image icon** displayed in the first column of the event description in the list. If you want to toggle image panel display, press the **Show / Hide** button at the top toolbar.

Time filter


The time filter limits the displayed events with time boundaries. It is set in the right part of the **Events archive** program.

It can be set to following values: **Day** (from midnight to midnight), **Week** (today + past 6 days), **Month** (=today + past 28 days), **All** (displays all events), or you can use **Custom** boundaries of the time filter after selecting the option and setting the **From** and **To** parameters. The change is applied after pressing the **Refresh** button.

Display conditions

Constructed display conditions can be used to filter the events. According to condition type the displayed events must fulfill or disobey the condition arguments.

To create a new condition, press the **New** button.

As the condition arguments you can use following event properties: **System**, **Module**, **Event** (event type), **Flag** (reason key code), **User** (the field can be used for searching the user, the  icon enables to set, if the filter contains residents, visitors, and deleted users), **Card**

(microreader can be used here), *Folder* (in which a potential user, who caused the event, belongs), and finally the condition *Type: Include* or *Exclude*. The condition type defines how the condition is applied.

The *Include* conditions are applied like this: if there is at least one include condition used in the condition set, only events fulfilling all arguments of at least one Include condition are displayed.

The *Exclude* conditions are applied like this: in the displayed events there are no events, which fulfill all arguments of any used Exclude condition.

Defined conditions can be saved in the condition list located on the right. Each condition has its own name. To display the condition arguments, click the *arrow down* symbol. To delete a condition, click on the *red cross* symbol. To change the condition name, click at the *condition name*.

A condition is applied in the condition set only if the selection option located next to the condition name is checked. To display a new list of events according to currently selected conditions, press the *Refresh* button.

Conditions can be also created automatically from the event context menu. Here you can select (if the argument is relevant for the specific event) one of the following options: Follow system, follow module, follow event, follow user, follow ID.

6.1.3. Inserting cards from selected events

There is an option to *insert new ID media* in the *APS Administrator* program database from the events archive. Select relevant events containing the card IDs and press the Insert button, which is located at the top toolbar. A dialog is opened, in which you can process the selected cards and insert them into database. The dialog options are described in chapter 5.2.2. The only difference is that this dialog cannot be used for inserting the cards online.

6.1.4. Events export

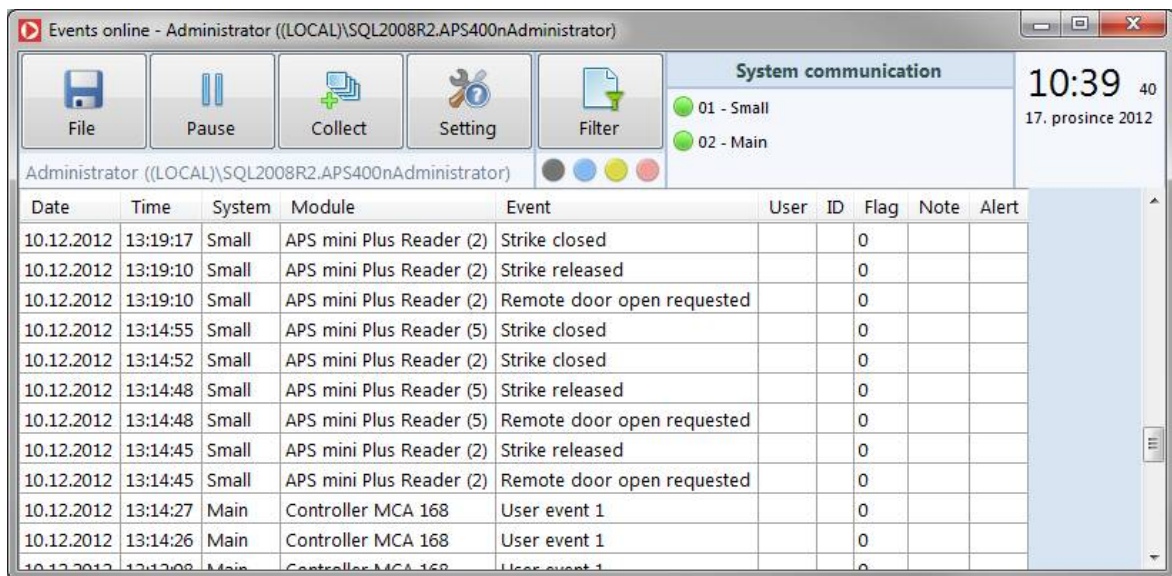
The events export is available in the File – Save dialog.

Output options offer to save the currently selected events (*Selection* option), events displayed at current page (*Current page* option), or all events fulfilling condition set (*All pages* option).

6.2. Events online

The *Events online* (pic. 6.3) program module enables to monitor system events in real time as they are online downloaded from connected systems. Only users with *Administrator* and *Events archive* privilege are allowed to use the program module. User, having this right *bound to an organizational folder*, can see only modules, which are assigned in an access group, which is assigned to a folder, which is accessible to the user. Furthermore he can see only events of users, which are assigned in the folder accessible to the user.

The program module is also appropriate for *inserting new ID media to the APS400Administrator database*, especially when a PC reader is unavailable. For this operation *Administrator* or *ID media administrator* privilege is required.



Pic. 6.3: Events online program module

In the lower part of the program windows there are events displayed as they are online read from connected HW by the communication server. The events can be *filtered* by the alert level, which is set for specific event. The filter (Filter button) can be set to display *All events*, or *Information + Warnings + Alerts*, or *Warnings + Alerts*, or *Alerts* only.

System communication status is displayed next to the top toolbar. It is the communication status announced by the communication server. The color of the icon assigned to individual system corresponds with the *system communication status*:

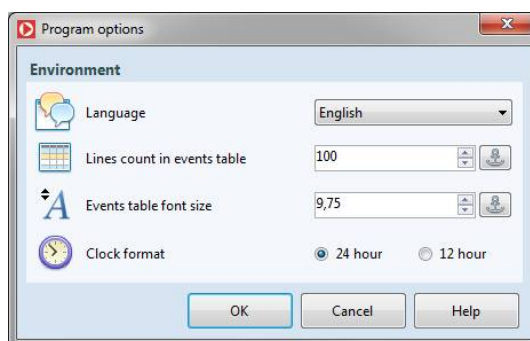
- *Yellow* – attempt to establish communication with the system
- *Green* – no errors in the communication with the system
- *Red* – there is an error in the communication with the system or its party

On the top right corner there is the *SQL server system clock*. At the same moment it is a verification of the *SQL server connection status* – if the connection is interrupted, *ERROR* message is displayed there.

6.2.1. Events online program module setting

The setting of the program module is available in the main menu by selecting *Setting – Options*.

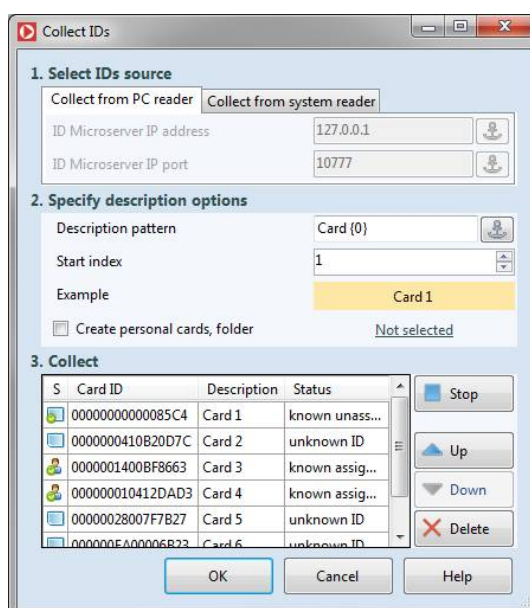
In the displayed dialog (pic. 6.4) following options can be set: *program language*, define the page *lines count*, events table *font size*, and define the *format of the SQL server system clock* in the upper right corner.



Pic. 6.4: Events online options

6.2.2. Inserting new ID media in the database

Dialog for inserting new ID media in the database (pic. 6.5) is available after pressing the *Collect* button located at the top toolbar.



Pic. 6.5: Inserting IDs into database

The first step is to determine, from where the IDs will be collected. First option is to *use a local reader*; the second option is to select *any reader in any system*.

To use a *local reader*, set up the *ID Microserver* program to support the reader, then go to the *Collect from PC reader* tab and set the *IP address* and *IP port* of the *ID Microreader* program.

If you want to use the second option, go to the *Collect from system reader* tab and select the proper *System* and *Module*.

After pressing the *Start* button you can *start to present IDs* you want to insert into database at selected device. Read IDs are displayed in the *Collect* table. Recommended procedure is to read the IDs one by one in the order starting with an *ID with the lowest description*

index – the program is able to create matching descriptions when inserting the IDs into database.

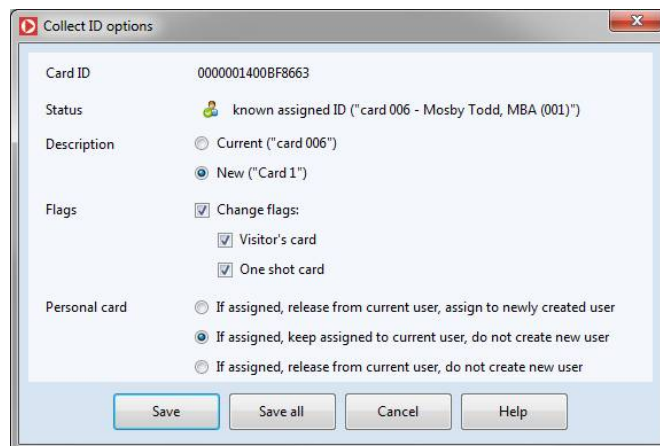
If an ID is already saved in the database, the *Status* field will reveal this fact together with the original ID description and the cardholder information. You can also change the order of the IDs by selecting them and using the *Up* and *Down* buttons, and delete the IDs from the Collect table by selecting them and using the *Delete* button. If a user reads an ID already present in the Collect table, it is instantly selected.

The *description*, which is intended to be associated with inserted ID, is made of a *Description pattern* and *ID index* (ordinal number). The description pattern usually contains a *text description* and *{0}* entity, which is subsequently replaced by the index value (*first ID* gets *starting index* value, *successive ID* always gets the index *greater by 1*). With this procedure it is easy to insert a group of IDs, where the index is raising by 1.

Another option is to set that the inserted IDs should be created together with their cardholders' personal lists. To do so, check the *Create personal cards* option and select the *folder*, in which the personal lists should be stored. This option can be only used by users with privilege to the specific folder.

To save the *Collect* table data, press the *OK* button.

If there is an ID present, which is already used in the database, a dialog (*pic. 6.6*) is raised, offering *options for inserting*.



Pic. 6.6: IDs inserting options

The first option is the selection of the description – you can choose to keep the *Current* description, or to use the *New* one.

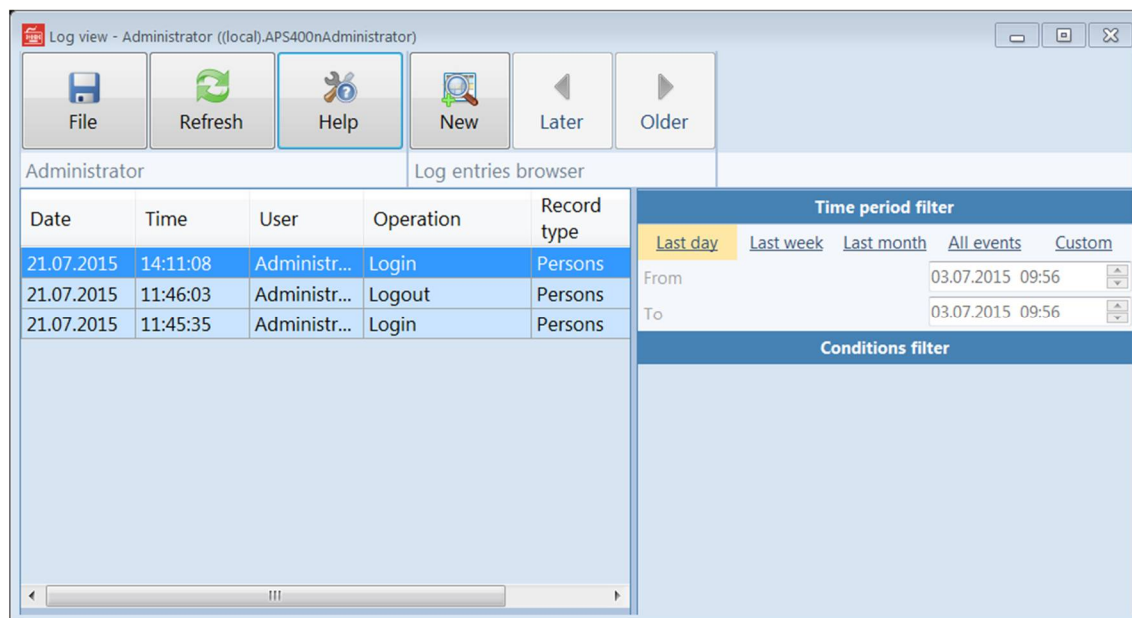
Another option is changing the ID flags – if you want to change the flags of the ID, select the *Change flags option* and set the *Visitor's flag* and *One shot card* options to desired value.

The last option is selecting the action to perform with the personal card of the ID cardholder. The description of the action is evident.

Selected rules can be applied for each ID one by one, or en masse for all inserted IDs. For the first option use the *Save* button, for the latter one choose *Save all* button.

6.3. Program log

When operating data of ACS, relevant actions are stored in program log and can be reviewed and analyzed later. For viewing the program log, the **Log View** program is implemented (pic. 6.7).



Pic. 6.7: Log View

The program module can be run from the top toolbar of the **APS Administrator** program.

The program can be also run by pressing the **Log** button located on the top toolbar of APS Administrator program. Only users with **Administrator** authorization are authorized to enter the logs archive.

The setting is available in the main (top) menu by selecting Setting – options.

6.3.1. Setting of the Log archive module

In displayed dialog at the **Environment** tab you can select the program Language, define the **count of lines** displayed on single log page, change the **font size** used in logs archive table, and define the **order** of logs displaying – new records on **Top** or **Bottom**.

6.3.2. Displayed Logs

To display records with preset conditions press the **Refresh** button.

The program enables to select two types of **log filters**. The first type is a **time filter**, which causes that only records, which happened in a specific time period, are displayed. The second type is a **set of constructed conditions**, which are required to be fulfilled or disobeyed by displayed records.

Time Filter


The time filter limits the displayed records with time boundaries. It is set in the right part of the **Log archive** program.

It can be set to following values: *Day* (from midnight to midnight), *Week* (today + past 6 days), *Month* (=today + past 28 days), *All* (displays all records), or you can use *Custom* boundaries of the time filter after selecting the option and setting the *From* and *To* parameters. The change is applied after pressing the *Refresh* button.

Display conditions

Constructed display conditions can be used to filter the records. According to condition type the displayed records must fulfill or disobey the condition arguments.

To create a new condition, press the *New* button.

As the condition arguments you can use following records properties: *Operation*, *Recordtype*, *Record*, *User* (the field can be used for searching the user, the  icon enables to set, if the filter contains residents, visitors, and deleted users), and finally the condition *Type*: *Include* or *Exclude*. The condition type defines how the condition is applied.

The *Include* conditions are applied like this: if there is at least one include condition used in the condition set, only records fulfilling all arguments of at least one Include condition are displayed.

The *Exclude* conditions are applied like this: in the displayed records there are no records, which fulfill all arguments of any used Exclude condition.

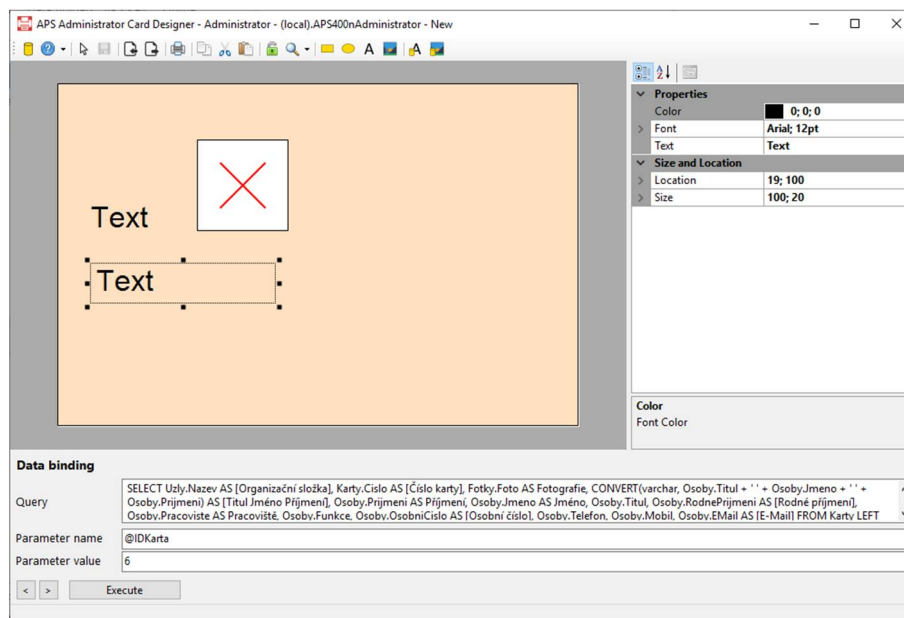
Defined conditions can be saved in the condition list located on the right. Each condition has its own name. To display the condition arguments, click the *arrow down* symbol. To delete a condition, click on the *red cross* symbol. To change the condition name, click at the condition name.

A condition is applied in the condition set only if the selection option located next to the condition name is checked. To display a new list of records according to currently selected conditions, press the *Refresh* button.

Conditions can be also created automatically from the records context menu. Here you can select (if the argument is relevant for the specific records) one of the following options: Follow user, follow operation, follow record type, follow record.

6.4. Card print designer

APS Administrator Card Designer (pic. 6.8) is a program for creating templates for card printing using data from APS Administrator database. The templates are stored in the APS Administrator database and can also be exported/imported to/from external files.



Pic. 6.8: APS Administrator Card Designer

The program can be run from the main menu of APS Administrator: **Program > Card print designer**. Another option is to run its exe file directly from the folder with APS Administrator program.

After logging in (the same mechanism as for logging in the APS Administrator program, the Administrator privilege is required) the main program window is displayed.

6.4.1. Basic controls

Following buttons (pic. 6.9) are used for basic control of the program.



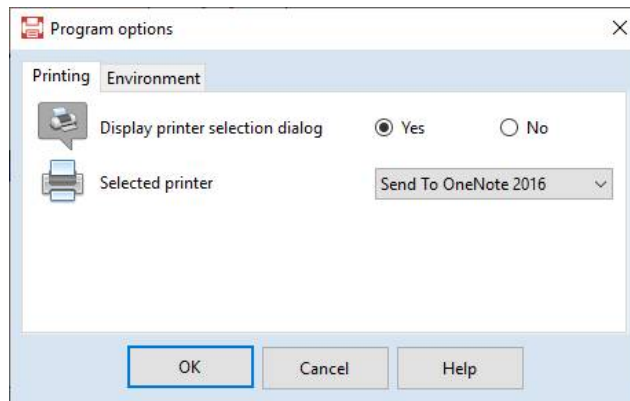
Pic. 6.9: Basic controls

The buttons purpose is following (from left):

- Change SQL server – enables to close the program and set, that the next time the program is run a dialog with SQL server selection is displayed
- Options
 - Setting – opens a dialog with program setting
 - Help – opens a help file
- Manage templates – opens a dialog with templates management
- Save – saves currently opened template

Program options

The program options dialog (*pic. 6.10*) enables to set up printing and environment options.



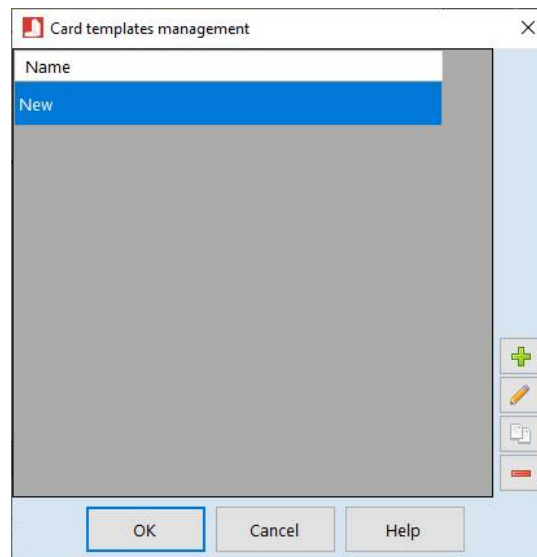
Pic. 6.10: Program options

The **Printing** tab enables to select, if the program will display a dialog for printer selection. Furthermore, you can select a printer, what will be used for printing (or will be selected as default printer in the printing dialog).

The **Environment** tab enables to select the language version of the program.

Templates management

The template management is enabled in a dialog, which is available after clicking the arrow button on the top toolbar of the program (*pic. 6.11*).



Pic. 6.11: Card templates management

To add a new template, select the button with plus icon. To remove templates, select them and press the button with minus icon. To edit the name of the template, press the button with pencil icon. If you want to create a new template as a copy of an existing one, use the button with copy symbol.

After selecting a template you want edit, continue by pressing the OK button.

6.4.2. Data binding

The data binding defines, which data of a card and its cardholder (eventually other data) are available when creating a template (*pic. 6.12*).

Data binding	
Query	SELECT Uzly.Nazev AS [Organizační složka], Karty.Cislo AS [Číslo karty], Fotky.Foto AS Fotografie, CONVERT(varchar, Osoby.Titul + ' ' + Osoby.Jmeno + ' ' + Osoby.Prijmeni) AS [Titul Jméno Příjmení], Osoby.Prijmeni AS Příjmení, Osoby.Jmeno AS Jméno, Osoby.Titul, Osoby.RodnePrijmeni AS [Rodné příjmení], Osoby.Pracoviste AS Pracoviště, Osoby.Funkce, Osoby.OsobniCislo AS [Osobní číslo], Osoby.Telefon, Osoby.Mobil, Osoby.Email AS [E-Mail] FROM Karty LEFT
Parameter name	@IDKarta
Parameter value	6
<input type="button" value="Execute"/>	

Pic. 6.12: Data binding

In the query section there is an SQL query, which contains a set of relevant data, which will be available.

Expert knowledge of SQL commands syntax and APS Administrator database structure are required to change the SQL query. Default value is:

```
SELECT Uzly.Nazev AS [Folder], Karty.Cislo AS [Card number], Fotky.Foto AS Photo,
CONVERT(varchar, Osoby.Titul + ' ' + Osoby.Jmeno + ' ' + Osoby.Prijmeni) AS [Title
Name Family], Osoby.Prijmeni AS Family, Osoby.Jmeno AS Name, Osoby.Titul as Title,
Osoby.RodnePrijmeni AS [Surname], Osoby.Pracoviste AS Workplace, Osoby.Funkce
as [Function], Osoby.OsobniCislo AS [Personal number], Osoby.Telefon as Phone,
Osoby.Mobil as [Cell phone], Osoby.Email AS [E-Mail] FROM Karty LEFT OUTER JOIN
Osoby ON Karty.ID_Osoba = Osoby.IDOsoba LEFT OUTER JOIN Fotky ON
Osoby.ID_Fotka = Fotky.IDFotka LEFT OUTER JOIN Uzly ON Osoby.ID_Uzel =
Uzly.IDUzel WHERE (Osoby.Priznaky & 0x01 = 0) AND (Karty.Priznaky & 0x01 = 0) AND
(Karty.IDKarta = @IDKarta)
```

The Parameter name defines, which parameter value is replaced with the Parameter value field for the example displayed at the canvas.

The arrows and Execute button change the Parameter value and perform instant query execution.

The last settings are used to give the user an idea about the look of the card based on data relevant to selected card and cardholder. The selected card and cardholder can be changed (with default query) by changing the Parameter value.

6.4.3. Drawing tools

The drawing tools are used to insert different objects on the canvas and setting up parameters of such objects. The canvas size is 287 x 189 px and it corresponds with an ISO card by side ratio. The DPI value is approx. 85. Use the program main toolbar to select appropriate tool (*pic. 6.13*).



Pic. 6.13: Drawing tools

After selecting a specific tool, the object is created on the canvas in the default position with default properties. The object properties can be adjusted with mouse or by editing the properties in the right part of the main program window. The size scale is pixels.

Following tools are available:

- Rectangle:
 - BrushColor – color of the rectangle area
 - PenColor – color of the rectangle outline
 - Location – location of the top left corner of the rectangle
 - Size – rectangle size (width x height)
- Ellipse:
 - BrushColor – color of the ellipse area
 - PenColor – color of the ellipse outline
 - Location – location of the top left corner of the rectangle defining the ellipse
 - Size – size of the rectangle defining the ellipse (width x height)
- Text:
 - Color – text color
 - Font – text font
 - Text – text content
 - Location – location of the top left corner of the rectangle defining the text area
 - Size – size of the rectangle defining the text area (width x height)
- Picture:
 - Picture – source file of the picture, raster pictures can be used (bmp, gif, jpg, jpeg, png, ico)
 - Location – location of the top left corner of the rectangle defining the picture area
 - ResizeProportional – defines if the size of the picture is changed proportionally according to the rectangle defining the picture area; if not set, the picture always fills the entire area of the rectangle
 - Size – size of the rectangle defining the picture area (width x height)
- Text from database:
 - Binding – data binding to a text field; the available text fields are created automatically based on data binding definition (see above)
 - Color – text color
 - Font – text font
 - Location – location of the top left corner of the rectangle defining the text area
 - Size – size of the rectangle defining the text area (width x height)
- Picture from database:
 - Binding – data binding to a picture field (accessed as a byte array from database); the available text fields are created automatically based on data binding definition (see above)
 - Location – location of the top left corner of the rectangle defining the picture area
 - ResizeProportional – defines if the size of the picture is changed proportionally according to the rectangle defining the picture area; if not set, the picture always fills the entire area of the rectangle
 - Size – size of the rectangle defining the picture area (width x height)

6.4.4. Control tools

The control tools are used to perform edit and other activities (*pic. 6.14*).



Pic. 6.14: Control tools

The buttons (from left) are used for following actions:

- Print – sends a command to print a card to a printer
- Copy – copies selected object to clipboard (CTRL + C)
- Cut – removes selected object and copies it to clipboard (CTRL + X)
- Paste – inserts selected object from clipboard (CTRL + V)
- Lock – enables to lock the card design editor tools; can be unlocked by repeated pressing the button

6.4.5. Import and export

The Import and export tools are used to import/export templates from/to an external file (*pic. 6.15*).



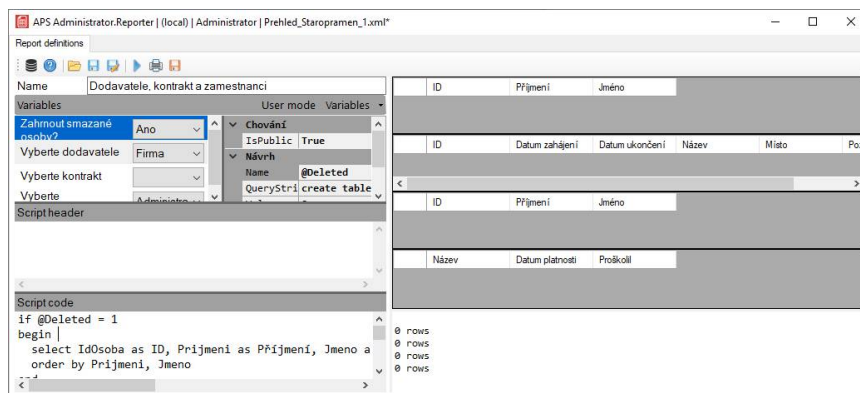
Pic. 6.15: Import and export

The first button is used for import. After pressing the button, select the appropriate file with the template. By importing a template, the current template is overwritten.

The second button is used for export. After pressing the button, select a file, which will be used to save the template data.

6.5. APS.Reporter

The APS Administrator.Reporter (*pic. 6.16*) program is used to create reports (data sets) from APS Administrator database data. The reports definitions are saved in xml files.



Pic. 6.16: Creating reports – APS Administrator.Reporter

The program can be run from the main menu of APS Administrator: **Program > Reports > APS.Reporter**. Another option is to run its exe file directly from the folder with APS Administrator program.

After logging in (the same mechanism as for logging in the APS Administrator program, the Administrator privilege is required) the main program window is displayed.

6.5.1. Basic control

The buttons (*pic. 6.17*) are used for following basic program control.



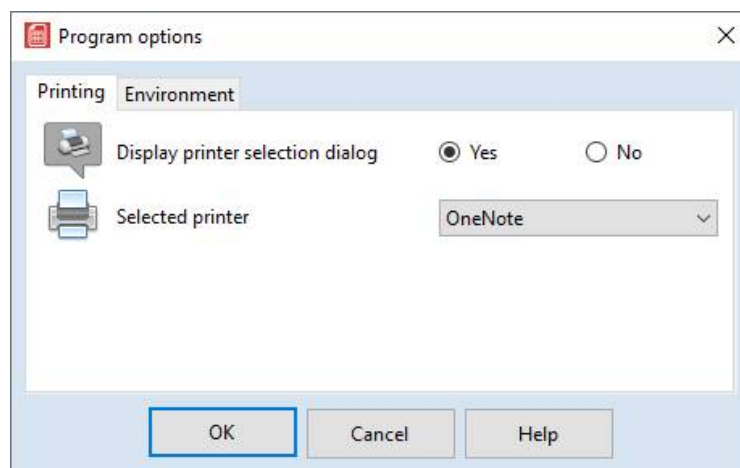
Pic. 6.17: Basic control

The buttons meaning is following (from left):

- Change SQL server – enables to close the program and set, that the next time the program is run a dialog with SQL server selection is displayed
- Program options – opens a dialog with program setting
- Open – opens a dialog for opening a file with report definition
- Save – saves current report definition being edited
- Save as – displays a dialog for saving report definition in a new file

Program options

The Program options dialog (*pic. 6.18*) enables to perform printing and environment setting.



Pic. 6.18: Program options

The **Printing** tab enables to select, if the program will display a dialog for printer selection. Furthermore, you can select a printer, what will be used for printing (or will be selected as default printer in the printing dialog).

The **Environment** tab enables to select the language version of the program.

6.5.2. Report definition

The left part of the program main window contains a definition of complete report. The program can be run in Design mode or User mode. The mode is changed by pressing appropriate button at the Variables panel. The User mode enables only to set the values of defined variables and perform regular user actions. The Design mode furthermore enables to manage variables and change the script.

Using the program in design mode requires expert knowledge of SQL commands syntax and APS Administrator database structure.

The name of the report is used in case of exporting files in the file's header.

Variables

The variables can be used to set up parameters for the SQL query.

In the Design mode you can add variables of following types after the Variables button:

- Int – (integer)
 - IsPublic – sets, if the variable is available the User mode
 - Name – name of the variable in the script
 - Value – initial value
 - Description – description of the variable – displayed as variable name in the panel of the program
- Varchar – (variable character field)
 - IsPublic – sets, if the variable is available the User mode
 - Length – maximal length of the variable
 - Name – name of the variable in the script
 - Value – initial value
 - Description – description of the variable – displayed as variable name in the panel of the program
- Datetime – (date and time)
 - IsPublic – sets, if the variable is available the User mode
 - Name – name of the variable in the script
 - Value – initial value
 - Description – description of the variable – displayed as variable name in the panel of the program
- Dictionary – a list of couples (name and value) – interpreted as a dropdown list object; after selecting the object by name, its value is set as the variable value
 - IsPublic – sets, if the variable is available the User mode
 - Name – name of the variable in the script
 - Querystring – SQL query for setting the dropdown list content
 - Value – initial value
 - Description – description of the variable – displayed as variable name in the panel of the program

When creating a variable of Dictionary type, it is necessary to create a query, which defines and fills up the Key and Value fields, thus creating a dictionary of keyvalue pairs available in the list. An example of such script is:

```
create table #pom
(
    [Key] int,
    [Value] nvarchar (3)
);

insert into #pom
([Key], [Value])
values
(0, 'Yes')

insert into #pom
([Key], [Value])
values
(1, 'No')

select
    [Key]
    ,[Value]
from
    #pom

drop table #pom
```

Script header

The script header has to be created when using the variables in the SQL script. The header can be generated by selecting Variables > Create script header.

Script code

This field contains the SQL query itself, which is performed when the complete export mechanism is used. This code can work with defined variables (see script header) and all objects in APS Administrator database. You can also use multiple queries and get multiple result sets.

Setting up the script code requires expert knowledge of SQL commands syntax and APS Administrator database structure.

6.5.3. Program operation

After the report is defined, the program is used in User mode as a rule, and it is used to generate report outputs (*pic. 6.19*).



Pic. 6.19: Program operation

After setting up the variables to required values it is possible to use following options to get various result outputs. Saving a result in a file or printing result options are available only after executing the query with the result shown in program window.

- Execute and display result – runs the query and displays the result in the right part of the panel. The lower part contains system messages from the SQL Server.
- Print displayed result – prints the results displayed in the program
- Save displayed result – generates a HTML page containing displayed results and saves them into a file