APS Administrator.GT

Guard tour program for APS systems

(Extending program module for APS Administrator)

Installation and user's guide

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2.1 Product description

APS 400 nAdministrator.GT program module extends the program package of *APS Administrator* (see http://www.techfass.com/) offering an option of guard tour monitoring. The product is (as well as APS Administrator) designed for multiuser usage in LAN environments.

2.2 HW and SW requirements

Server and client computers HW requirements are dependent on the total load of the system. We recommend consulting the choice of the equipment with your local distributor. Recommended OS is *Windows 10* with *.NET Framework 4.6.1*.

2.3 Installing SW, data security, backups

The software is installed using its *msi* installation package. It is bound to the APS Administrator program package; therefore, it must be installed after the *APS Administrator* and *APS Server* programs.

Using *APS Administrator.GT* program module does not exclude using any other *APS Administrator* extending program module at the same time.

Due to the integration of *APS Administrator.GT* software extension into the basic APS400nAdministrator database, same rules for security and backups are applied. More information about this concern can be found in *APS Administrator User's guide*.

It is meaningful to run the program only as an *online application*. Therefore, both *communication* and *database services* must be permanently running.

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3 Initial setting

3.1 Before program first start

The *first run and configuration of the program* should be performed *after finishing all steps for standard installation and configuration of the system*. First set up the communication in the APS Server program, transfer the structure of all connected systems to the APS Administrator database, set up the access permissions, etc.

In the APS Administrator database there is a *folder reserved for the APS Administrator.GT users*. This folder has to be created in the APS Administrator program first and all personal cards of users of the APS Administrator.GT (guards) program must be moved into this folder.

If the APS Administrator.GT should be used as network client, set the server IP address of the APS Server in the APS Administrator / Configuration / System / Connection (default value 127.0.0.1, enables the program to work only locally on the server).

Furthermore, it is appropriate to *define the access levels* for working with the APS Administrator.GT module to the relevant guards. The description of the access levels is described in chapter 3.3.

3.2 Running the APS Administrator.GT for the first time

When *starting the program for the first time* it is necessary to set up the connection to the SQL Server.

In the configuration dialog (*pic. 1*) fill in the *SQL Server name*, and choose the *Authentication type*. If required, fill in the *User Id* (login name) and *Password* fields. The parameters for connection to the SQL Server are identical for both APS Administrator and APS Administrator.GT programs.
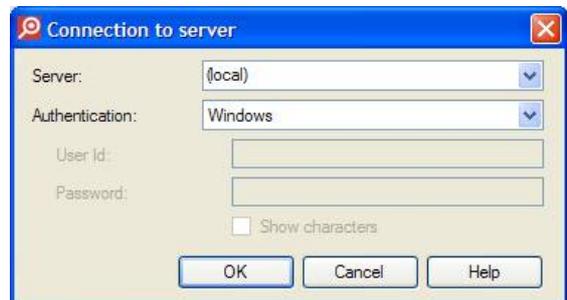
Pic. 1: Connection to SQL Server

After establishing the connection to the SQL Server, log in the program as the system *administrator* and set the ASP Administrator.GT user's folder. Following configuration tasks can be done by a user with "User is administrator of the APS Administrator.GT" module permission (see chapter 3.3).

3.3 User permissions

The user permissions for working with *APS Administrator.GT* module can be defined in the APS Administrator program. For setting the permissions, edit the user's *personal card*, fill in *Login name* and *password* and check required permissions:

- *User without access rights* – is able to view the screen of the APS Administrator.GT module and is able to launch the patrols.
- *User is operator of the APS Administrator.GT module* – this user can furthermore delay a patrol, terminate patrol, confirm alarm states or enter user identification at a checkpoint manually.
- *User is administrator of the APS Administrator.GT module* – full access to the application, program configuration. This user does not need to be placed in the same organization file as the other guards.

4 Program configuration

The program configuration can be performed only by a user privileged as *User is administrator of the APS Administrator.GT* module. After such user is logged in, following options are available.

4.1 System settings

The system settings enable to choose the folder containing guards' personal lists, settings of acoustic announcements and selection of the language environment.

The window with the system settings can be opened by pressing the *System* button located at the top toolbar of the program (*pic. 2*).

It is meaningful to set the location of the guards' personal lists only at the *program first start* (see *chapter 3.2*) and to work with the same folder since the first setting.

The *acoustic alerts* setting enables to select a *sound file*, which is played when the relevant occasion occurs. To choose the sound file for appropriate occasion press the bu*tton with folder* and select a *sound file* in *wav* or *mp3* format. The sound file can be played by pressing the button with *green arrow*. If the sound file is intended to be replayed repeatedly while the occasion conditions persist, check the *Loop* option.

Pic. 2: System settings

The button with *red cross* removes the sound file assignment.

A change of *language environment* can be performed by selecting relevant language from the *Language options*.

The *Display events according to logged in user permission* option defines, which events will be displayed. If the option is not used, all events are always displayed. If the option is used, all events are only seen by a user with Administrator privilege. Other users can only see the events related with the APS Administrator.GT program module.

The *Display checkpoints status after user login* option disables the visualization of system reader modules used in the APS Administrator.GS program as checkpoints after the program start until any user logs in.

Furthermore it is possible to *change the parameters of the SQL Server connection* by pressing the *Change* button in the *Database* section. The setting of the new database connection is described in *chapter 3.2*.
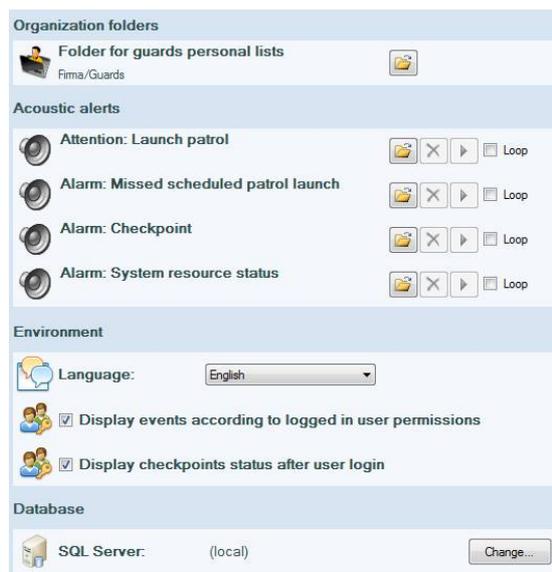
4.2 Checkpoints definition

A *checkpoint* is defined by its name and by an assignment of any of the reader modules from connected systems.

The window with definition of the checkpoints can be opened by pressing the *Points* button located at the top toolbar of the program (*pic. 3*).
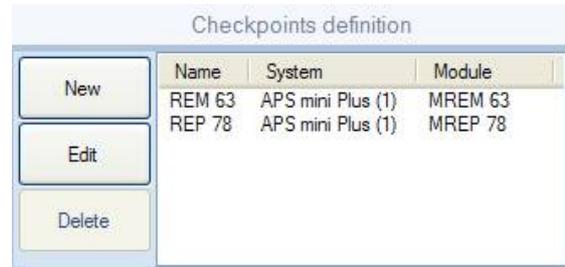
Pic. 3: Checkpoints definition

To *create a new checkpoint*, press the *New* button. Fill in a unique *name* and after pressing the *Select button* assign any of the reader modules from the connected systems to the checkpoint. Each reader module can be assigned only to single checkpoint. Additional information can be filled in the *Note* field. After pressing the *OK* button, the checkpoint is saved.

For *editing* or *deleting* a checkpoint press the relevant button.

4.3 Shifting times definition

A *shifting time* defines a time period required for moving between two checkpoints including tolerable delay.

The window with the shifting times definition can be opened by pressing the *Times* button located at the top toolbar of the program (*pic. 4*).
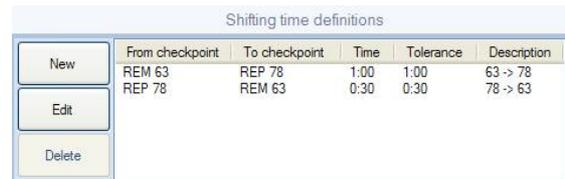
Pic. 4: Shifting time definitions

To create a new shifting time definition, press the *New* button. Select the *Starting* and the *Destination checkpoint* from the checkpoints list. Fill in the value of the *time interval* required for moving between the checkpoints (*shifting time*) and define the *tolerable delay*. Additional information can be filled in the *Description* and *Note* field. After pressing the *OK* button, the shifting time definition is saved.

For *editing* or *deleting* a shifting time definition press the relevant button.

The program expects the possibility of different time intervals for moving between the checkpoints in opposite directions. Do not forget to define the shifting times in both directions of movement.

4.4 Patrol routes definition

A *patrol route* is defined as a set of checkpoints in defined order and defined time interval required for moving to the first checkpoint both in direct and reversed directions.

Pic. 5: Patrol routes definition

The window with the patrol routes definition can be opened by pressing the *Routes* button located at the top toolbar of the program (*pic. 5*).

To create a new patrol route definition, press the *New* button. Fill in the *name* of the route and define the initial *time period for announcement* of the upcoming patrol. Define the *time period* required for *moving to the first checkpoint* and *tolerable delay* in *both directions* of the route. Additional information can be filled in the *Note* field. After pressing the *OK* button, the shifting time definition is saved.

After a route is selected, it is possible to *add the checkpoints*. For such action press the *Add* button and select the relevant checkpoint from a list. The *order* of the checkpoints in the route can be changed by selecting relevant checkpoint and pressing the *Up* or *Down* buttons. A checkpoint can be removed from the route by pressing the *Delete* button.

For *editing* or *deleting* a route definition press the relevant button.

It is recommended to avoid placing a pair of identical checkpoints subsequently.

4.5 Scenarios definition

The *Scenarios* enable to define a sequence of patrols, which can be used for a comfort patrols planning.

Pic. 6: Scenarios

The window with the scenarios setting is displayed after pressing the *Scenarios* button located at the top toolbar (pic. 6).

To create a new scenario, press the *New* button and enter its *name*, eventually a *note* for the scenario.

The scenario contains a list of scheduled patrols sorted by the scheduled date and time of the patrol. To add a new patrol in the scenario, press the *Add* button. To change the parameters of the patrol, select it and press the *Edit* button. To remove the patrol from the scenario, select it and press the *Delete* button.

The scenarios are sorted by entered *date and time* of the patrol; the *actual date* is used as the *reference date* (when a patrol is scheduled for actual date, it is saved with time information "*Day 0*"; when applying the scenario in the patrol schedule, the patrols are inserted on selected date with the relative shift according to the time information in the scenario). The other parameters of the patrol are listed in *chapter 4.6*.

To *edit* or *delete* a scenario, select it and press the relevant button.

4.6 Patrols schedule

Patrols schedule enables to set the time, when the individual patrols should be launched and the way how they should be performed.

Pic. 7: Patrols schedule

The window with the patrols scheduling can be opened by pressing the *Patrols* button located at the top toolbar of the program (*pic. 7*).

To schedule a new patrol, press the *New* button. Fill in the *Launch time* and *select a route* from the route list. After that select one of the *directions* of the route:

- *Direct* – the patrol is scheduled in the default direction of the route.
- *Reversed* – the patrol is scheduled in the opposite direction of the route.
- *Random* – in this case the patrol is scheduled as a set of checkpoints patrol members must visit in any order in defined time period – the time period is defined by the *Duration* parameter.

Furthermore, the time period for *announcement* of an upcoming patrol can be *adjusted*. If it is required to get the *identification of all patrolling guards at each checkpoint*, check the *Require identification of all guards checkbox*. Additional information can be filled in the *Note* field. The patrol schedule is saved by pressing the *OK* button.

For *editing* or *deleting* a scheduled patrol, press the relevant button.

4.7 Log

The log contains the history of all patrols and enables to view and print the data.

The window with the log can be opened by pressing the *Log* button located at the top toolbar of the program (*pic. 8*).

Pic. 8: Log

The first step is *selecting boundaries* specifying the time interval used for displaying data. The time interval is defined by setting the *Since* and *Until dates*. Confirm the selection by pressing the *refresh button* (green arrow ![refresh])). You can also specify the concrete guard. For printing all displayed data, press the *print button* (![print]). The default printer of the system is used for the printing job. For exporting displayed data to *.csv* or *.html* press the *save button* (![save]).

5 Program operation

5.1 Program window description

The application always runs in the *full-screen* and *top-over* mode, though it can be minimized to the *system tray*.

The program window is divided into several parts (*pic. 9*):
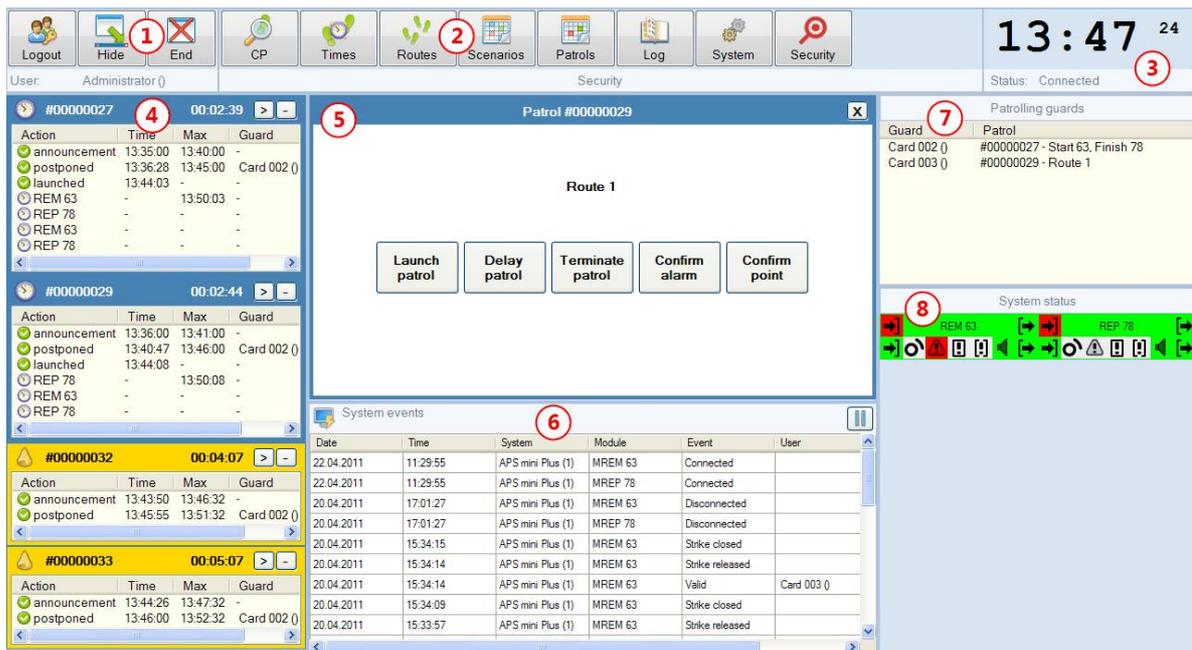
*Pic. 9: Program window*

The *control panel* is located at the *top toolbar*.

In its *left part* (*1*) there are buttons for *logging in* or *logging out*, button for *hiding* the program in the system tray and a button for *closing* the program. Under the buttons there is a name of a user currently logged in. In the *middle part* of the control panel (*2*) there are buttons the *program management* (see *chapter 4*) In the *right part* of the control panel (3) there are *system clock* displayed and the *SQL Server connection status*.

In the *left part* of the program window (4) there is a list of *patrols currently taking place* and a list of *patrols ready to be launched*. In the *upper middle part* of the program window (5) there is a *list of actions*, which can be performed with the currently selected patrol. In the *lower middle part* of the program window (6) there are *events displayed*, as they are being downloaded from the connected systems. In the *upper right part* of the program window (7) there is a *list of patrolling guards* at the current moment. In the *lower right part*, there is a *visualization of all connected system readers* with their current status highlighted by the color of the background.

5.2 General actions

5.2.1 User log in

After each program start there is no user logged in to the program. After a user logs in, he can use the program functions he is authorized to. The options of the user privileges setting for working with the program can be found in *chapter 3.3*.

For logging in, press the *Login button* located at the top toolbar (*pic. 9, area 1*). *Select a user* from the displayed dialog and fill in his *password*. After pressing the *OK* button the user will be logged in and will *gain the privileges* to work with the program according to his authorization level.

For logging out press the *Logout button*.

If you want to *hide the program* in the *system tray* area, press the *Hide button*. The program cannot be minimized while any of the patrols require attention. Furthermore when any time situation requiring user attention occurs, the program window is automatically maximized.

The program can be *closed* by pressing the *End button*.

5.2.2 Status of SQL Server connection

In the *right part* of the top toolbar (*pic. 9, area 3*) there are *system clock* and the *SQL Server connection* status displayed.

If the connection to the database server is successfully established, the system clock is running and the program announces the *Status: OK* message. If the connection to the SQL Server cannot be established (or is temporarily unavailable), the *ERROR* status is displayed. In that case it is not possible to work with the program; the connection to the SQL Server is required for the proper program working.

To change the parameters of the connection to the SQL Server use the procedure described in *chapter 4.1*.

5.2.3 System events

In the *middle bottom part* (pic. 9, area 6) there is a view of *events being online downloaded* from connected systems.

If you need to search for a specific event in the list, it is appropriate to *temporarily stop* the downloading of new events from the systems, this can be done by pressing the button with a *pause symbol* (❚❚) in the right part of the area. To *continue events download* again, press the button with a *start symbol* (▶).

5.2.4 Patrolling guards

In the upper right part (*pic. 9, area 7*) there is a list of guards currently performing a patrol.

A guard is identified by his name, surname and personal number, the patrol he is performing is identified by its unique number and selected route.

5.2.5 System status

In the *lower right part* (*pic. 9, area 8*) there is a *visualization of all connected system readers* with a colored highlight of their current status.

The description of individual visualization elements is described in *table 1*.
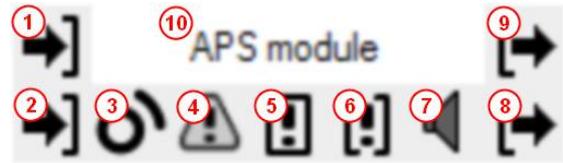
Pic. 10: Module status visualization

Visualized elements	#	Ico	Meaning		#	Ico	Meaning
	1	➡]	First input status		6	[!]	Forced door alarm status
	2	➡]	Second input status		7	◀	Beeper status
	3	⟳	ID reading status		8	➡]	First output status
	4	⚠	Tamper alarm status		9	➡]	Second output status
	5	[!]	Door ajar alarm status		10	-----	Module name

Table 1: Visualized elements description

It the visualization of all elements is displayed *in grey* (in default configuration of the visualization), that means the *connection with the APS 400 nServer.NET communication service could not be established*. In that case the program cannot operate correctly; the connection to the communication service is required for the program proper function!

The visualization setting is *configurable* (for a change of this setting a user must be logged in with User is Administrator of APS Administrator.GT module privilege). The setting is given by the definition of appropriate features *in an xml format*, the features assignment is performed using a system clipboard. To copy the reader features to the clipboard select the *Copy panel settings* option from the context menu raised at the relevant reader. Insert the features from the clipboard to the reader select the *Insert panel setting* from the same context menu.

The changes in the features of the visualized resource can be done in *any text editor*. First copy the visualization definition in the clipboard, insert it in a text editor window, adjust the features, insert the result back in the clipboard and finally insert the content of the clipboard back to the selected reader in the program.

The list of possible configuration options of the individual elements is described in *chapter 6*.

5.3 Standard operation

A *list of patrols taking place at the moment*, patrols in the alarm status and the patrols being announced as ready to be launched are displayed in the left part of the program (*pic. 9, area 4*). The + and – buttons in the list can be used to *expand* or *hide detailed information* about the patrols. The information contains the latest time of next action, a list of checkpoints the guard must visit, etc.

The most common usage of the module requires interaction from a user only when he needs to launch a patrol and confirm the alarms states, the whole function of monitoring the guards access at the checkpoints on time is performed by the module automatically.
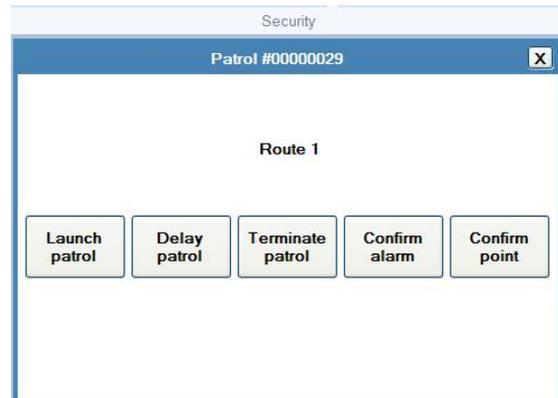
Pic. 11: Patrol window

A *list of meaningful actions* a user can perform with the patrol (*pic. 11*) at the time is displayed in the *Security window* after selecting the proper patrol form the patrol list by a *double-click* or pressing the > button.

5.3.1   Launch patrol announcement

The launch patrol announcement is displayed *in yellow*.

The launch patrol announcement can be handled by two courses of action:

*   *Launch patrol* – After choosing this option assign available guards from the list of guards to patrol using > and < buttons and launch the patrol by pressing the Launch button. The patrol can be also launched by any user.
*   *Delay patrol* – The patrol can be delayed for a time period defined in minutes. Delaying patrol requires entering a reason for delay and can be performed by a logged user only.

5.3.2   Patrol taking place

A *patrol currently taking place* is displayed *in blue*.

Following action can be performed with a patrol currently taking place:

*   *Confirm point* – The action of confirming a checkpoint manually from a PC is used in case of a malfunction of a reader module upon a positive identification of a guard at the checkpoint using other identification method (e.g. visual identification). Confirming a checkpoint from a PC requires entering a reason for manual confirmation and can be performed by a logged user only.

5.3.3 Alarm states

A *patrol with an unconfirmed alarm state* is displayed *in red*.

Following action can be performed with a patrol in the alarm state:

- *Confirm alarm* – requires entering a note and can be performed by a logged user only.

5.3.4 Terminatinf patrol

Following action can be performed with any patrol:

- *Terminate patrol* – Immediate termination of a patrol requires entering a note and can be performed by a logged user only.

A patrol cannot be terminated when there is an unconfirmed alarm.

6 System status visualization setting

The *system status visualization setting* is defined by a *set of features in xml format* for individual displayed elements. The meaning of individual elements and their configurable options are described further:

6.1 Visualization elements

- *inputControl1* – reader module first input status (typically door status)
- *inputControl2* – reader module second input status (typically REX device status)
- *outputControl1* – reader module first output status (typically door lock control)
- *outputControl2* – reader module second output status (auxiliary output)
- *readerControl* – ID media reading status
- *tamperControl* – tamper alarm status
- *doorAjarControl* – door ajar alarm status
- *doorForcedControl* – forced door alarm status
- *beepControl* – reader module beeper status
- *labelCaption* – reader module name visualization status

6.2 Configurable options

Individual options differ according to the type of element:

6.2.1 Parameters of inputs, outputs and beeper elements

IOColorSetting (element visualization color):

- *OffBackground* (background in inactive or off status): color code (RGB)
- *OnBackground* (background in active or on status): color code (RGB)
- *OfflineBackground* (background in offline status): color code (RGB)

IOSoundSetting (sound played on given status of element):

- *Off* (sound played in inactive or off status): None/Alarm
- *On* (sound played in active or on status): None/Alarm
- *Offline* (sound played in offline status): None/Alarm

6.2.2 Parameters of ID reader element

ReaderColorSetting (element visualization color):

- *OfflineBackground* (background in offline status): color code (RGB)
- *NoneBackground* (background when no ID is read): color code (RGB)
- *ValidBackground* (background when a valid ID is read): color code (RGB)
- *InvalidBackground* (background when an invalid ID is read): color code (RGB)
- *UnknownBackground* (background when an unknown ID is read): color code (RGB)

6.2.3 Parameters of alarm state elements

AlarmColorSetting (element visualization color):

- *InactiveBackground* (background in non-alarm status): color code (RGB)
- *AlarmBackground* (background in alarm status): color code (RGB)
- *OfflineBackground* (background in offline status): color code (RGB)

AlarmSoundSetting (sound played on given status of element):

- *Inactive* (sound played in non-alarm status): None/Alarm
- *Alarm* (sound played in alarm status): None/Alarm
- *Offline* (sound played in offline status): None/Alarm

6.2.4 Parameters of heading (name) element

CommunicationColorSetting (element visualization color):

- *OfflineBackground* (background in offline status): color code (RGB)
- *OnlineBackground* (background in online status): color code (RGB)
- *LostBackground* (background when the communication with a module is lost): color code (RGB)

CommunicationSoundSetting (sound played on given status of element):

- *Offline* (sound played in offline status): None/Alarm
- *Online* (sound played in online status): None/Alarm
- *Lost* (sound played when the communication with a module is lost): None/Alarm

6.3 Configuration xml example

The example shows the initial configuration of the visualization:

```xml
<NetworkModuleControlSetting>
  <NetworkModuleControl0101>
    <inputControl1>
      <IOColorSetting OffBackground="00FF00" OnBackground="FF0000"
OfflineBackground="EEEEEE" />
      <IOSoundSetting Off="None" On="None" Offline="None" />
    </inputControl1>
    <inputControl2>
      <IOColorSetting OffBackground="00FF00" OnBackground="FF0000"
OfflineBackground="EEEEEE" />
      <IOSoundSetting Off="None" On="None" Offline="None" />
    </inputControl2>
    <outputControl1>
      <IOColorSetting OffBackground="00FF00" OnBackground="FF0000"
OfflineBackground="EEEEEE" />
      <IOSoundSetting Off="None" On="None" Offline="None" />
    </outputControl1>
    <outputControl2>
      <IOColorSetting OffBackground="00FF00" OnBackground="FF0000"
OfflineBackground="EEEEEE" />
      <IOSoundSetting Off="None" On="None" Offline="None" />
    </outputControl2>
    <readerControl>
      <ReaderColorSetting OfflineBackground="EEEEEE"
NoneBackground="EEEEEE" ValidBackground="00FF00"
InvalidBackground="FFFF00" UnknownBackground="FF0000" />
    </readerControl>
    <tamperControl>
      <AlarmColorSetting InactiveBackground="EEEEEE"
AlarmBackground="FF0000" OfflineBackground="EEEEEE" />
      <AlarmSoundSetting Inactive="None" Alarm="None" Offline="None" />
    </tamperControl>
    <doorAjarControl>
      <AlarmColorSetting InactiveBackground="EEEEEE"
AlarmBackground="FF0000" OfflineBackground="EEEEEE" />
      <AlarmSoundSetting Inactive="None" Alarm="None" Offline="None" />
    </doorAjarControl>
    <doorForcedControl>
      <AlarmColorSetting InactiveBackground="EEEEEE"
AlarmBackground="FF0000" OfflineBackground="EEEEEE" />
      <AlarmSoundSetting Inactive="None" Alarm="None" Offline="None" />
    </doorForcedControl>
    <beepControl>
      <IOColorSetting OffBackground="00FF00" OnBackground="FF0000"
OfflineBackground="EEEEEE" />
      <IOSoundSetting Off="None" On="None" Offline="None" />
    </beepControl>
    <labelCaption>
      <CommunicationColorSetting OfflineBackground="EEEEEE"
OnlineBackground="00FF00" LostBackground="FF0000" />
      <CommunicationSoundSetting Offline="None" Online="None"
Lost="None" />
    </labelCaption>
  </NetworkModuleControl0101>
</NetworkModuleControlSetting>
```