HoneyWell N-1000 Integration Module Settings guide

ACFA PSIM 1.0

Last update 08/31/2022

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1 List of terms used in HoneyWell N-1000 integration module Settings guide

Access is a movement of people, transport and other objects into (out of) premises, buildings, zones and territories.

Server is a computer with specified **Server** configuration of *Axxon PSIM* software package.

Access card is a physical access identifier that is registered by the reared.

PIN code is an additional identification user characteristic that is typed from keyboard.

Controllers of *HoneyWell N-1000* access control system are electronic devices that are for control over access points.

Access control system (ACS) is a hardware-software complex that is used for access control.

Readers are electronic devices that are used for typing stored code from keyboard or for reading code information from system keys (identifiers).

Access point is a place where there is access control. Door, turnstile, gates, barrier that are equipped with reader, electromechanical lock and other access control devices, can be an access point.

Time schedule - a set of any number of time intervals during a day (24 hours) defined for several days (1 to 366), and the time intervals during specific dates. Time schedule defines a schedule of access to the secured object.

2 Introduction into HoneyWell N-1000 integration module Settings Guide

On the page:

2.1 Purpose of document

HoneyWell N-1000 integration module Settings Guide is a reference and information manual. It is meant for configuration specialists and operators of *HoneyWell N-1000* module. This module is a part of access control system that is carried out on the basis of *ACFA PSIM* software package.

The following information is performed in this Guide:

1. General information about *HoneyWell N-1000* integration module.
2. Setting up *HoneyWell N-1000* integration module.
3. Working with *HoneyWell N-1000* integration module.

2.2 General information about the HoneyWell N1000 integration module

The HoneyWell N1000 integration module is a component of ACS that is carried out on the basis of *ACFA PSIM* software package and is for realization of the following functions:

1. *HoneyWell N-1000* ACS configuration (Honeywell Security is a manufacturer).
2. Interaction of *HoneyWell N-1000* ACS with *ACFA PSIM* software package (configuration, monitoring, control).

Note.

Detailed information about HoneyWell N1000 ACS is given in official reference documentation for this system.

N-1000-III and N-1000-IV *HoneyWell N-1000* ACS controllers are integrated into *ACFA PSIM* software package. These controllers are for ACS construction on the objects of medium size.

Technical features of N-1000-III and N-1000-IV controllers are given in the table.

Feature	N-1000-III	N-1000-IV
Number of supported readers/ keyboards	2/2	4/2 or 0/4

Maximum number of users, persons	5 000 (with 25 000 resolution)	5 000 (with 25 000 resolution)
Storage, events capacity	10 200	10 200
Number of relay outputs	4	4 (with 24 resolution)
Number of alarm inputs	16 (normally closed resistive/dead contacts)	16 (normally closed/dead contacts)

Before setting up *HoneyWell N-1000* integration module do the following:

1. Install *HoneyWell N-1000* ACS hardware on secured object (see reference documentation for *HoneyWell N-1000* ACS).
2. Connect *HoneyWell N-1000* ACS to Server.

3 Supported hardware and licensing of the Honeywell N-1000 integration module

Manufacturer	Honeywell Systems Group Video and Access Control Solutions www.security.honeywell.com
Integration type	Low-level protocol
Equipment connection	RS-232

Supported equipment

Equipment	Function	Features
N-1000	Access controller	25000 or 5000 cards 16 alarm inputs 8 relays 63 time zones 8 programmable card formats

Protection
1 controller.

4 Setting up HoneyWell N-1000 integration module

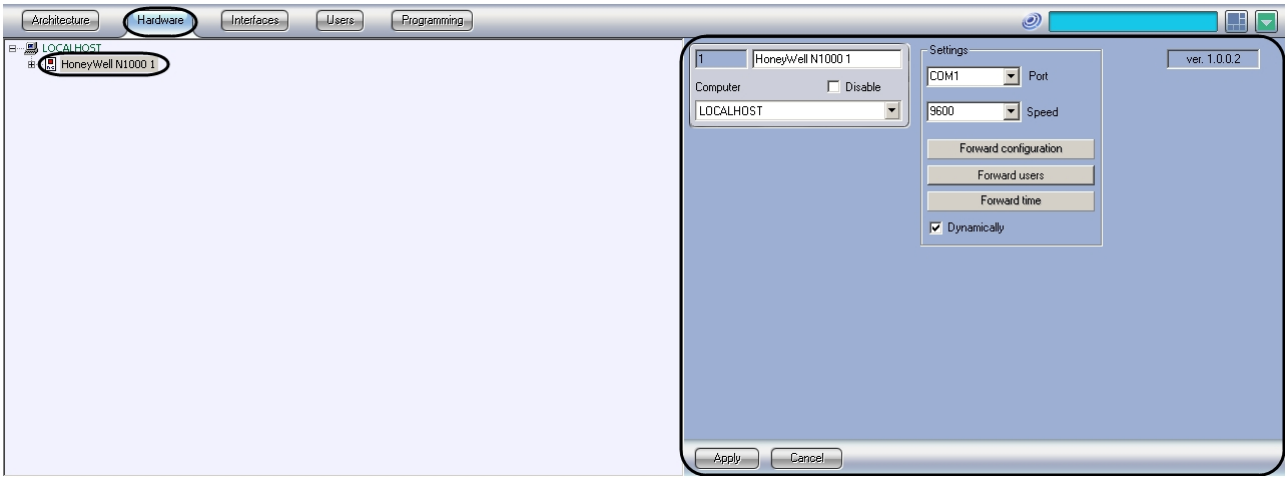
4.1 HoneyWell N-1000 integration module set up procedure

Setting up *HoneyWell N-1000* integration module is performed in the following succession:

1. Setting up connection of *HoneyWell N-1000* ACS to *Axxon PSIM* Server.
2. Setting up controllers.
3. Setting up access points.
4. Setting up entrances and exits.
5. Sending commands to controller.
6. Configuration registration.

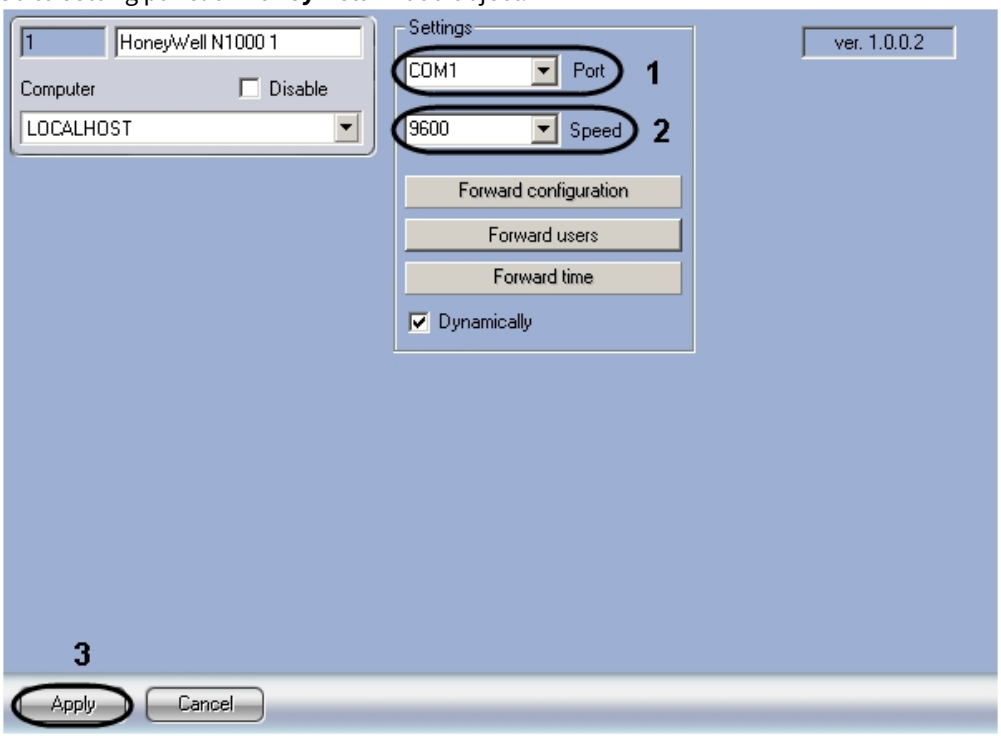
4.2 Setting up HoneyWell N-1000 ACS connection

Setting up connection of *HoneyWell N-1000 ACS* to *Axxon PSIM* Server is carried out on the setting panel of **HoneyWell N1000** object. This object is created on the basis of **Computer** object in **Hardware** tab of **System setting** dialog box.



Setting up connection of *HoneyWell N-1000 ACS* to *Axxon PSIM* Server is carried out the following way:

1. Go to setting panel of **HoneyWell N1000** object.

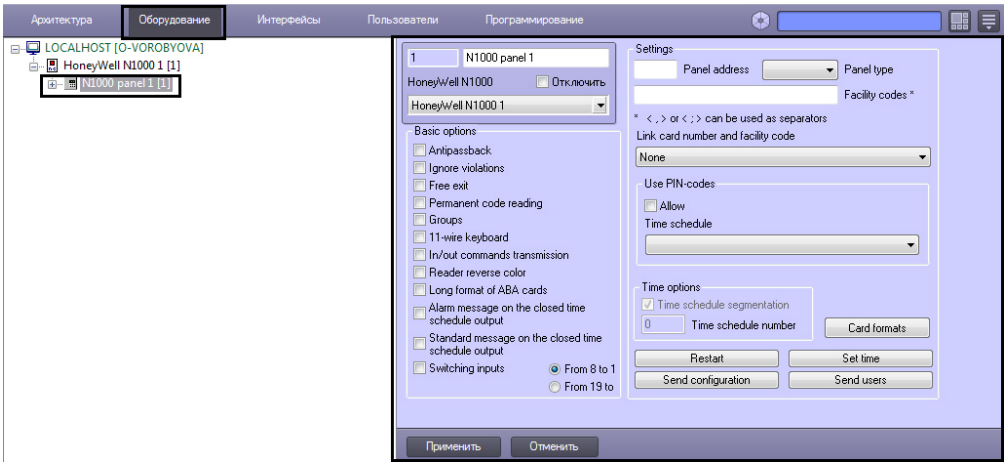


2. From **Port** dropdown list select COM port of *HoneyWell N-1000 ACS* connection to *Axxon PSIM* Server (**1**).
3. From **Speed** dropdown list select speed of data transfer through COM port of *HoneyWell N-1000 ACS* connection to *Axxon PSIM* Server (**2**).
4. Click **Apply** (**3**).

Setting up connection of *HoneyWell N-1000 ACS* to *Axxon PSIM* Server is completed.

4.3 Setting up HoneyWell N-1000 controllers

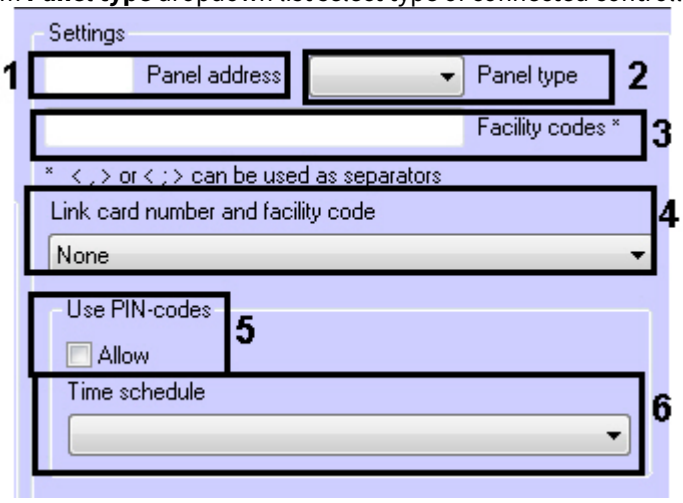
Setting up controllers of *HoneyWell N-1000 ACS* is carried out on the setting panel of **N1000 panel** object. This object is created on the basis of **HoneyWell N1000** object in **Hardware** tab of **System setting** dialog box.



Setting up controller of *HoneyWell N-1000 ACS* is carried out the following way:

1. Go to setting panel of **N1000 panel** object.

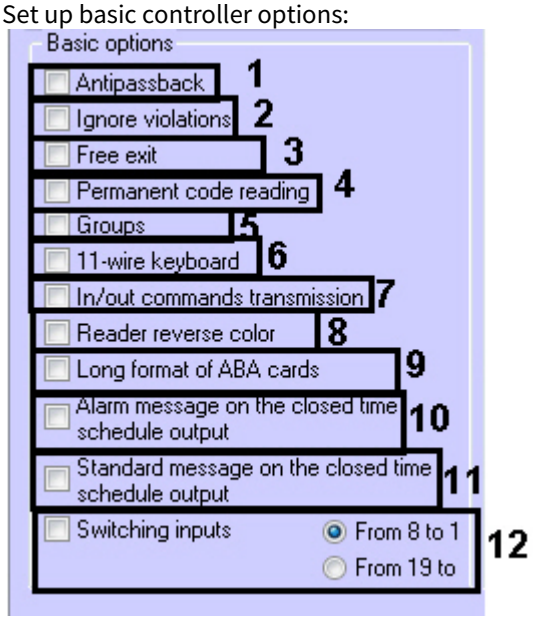
2. Set connection parameters of controller:
    a. Set controller address in **Panel address** (**1**).
    b. From **Panel type** dropdown list select type of connected controller (**2**).



3. In **Facility codes** set codes used by organization (facility codes) (**3**).
4. Select format of linking access card number and organization code (facility code) from the corresponding dropdown list (**4**).

> **Note.**
>
> If there is no need to link access card number and organization code it's necessary to set **None** value.

5. Set up user access through PIN code:
    a. Set **Allow** checkbox if it's necessary to ask PIN code of the user while giving the access (**5**).
    b. From the corresponding dropdown list select time zone during which it's necessary to ask PIN code of the user while giving the access (**6**).
6. Set up basic controller options:



    a. If it's necessary to control double-pass set the corresponding checkbox (**1**).
    b. Set **Ignore violations** checkbox if there is no need to store user violations (**2**).
    c. Set **Free exit** checkbox if it's necessary to ask access while passing to exit (**3**).

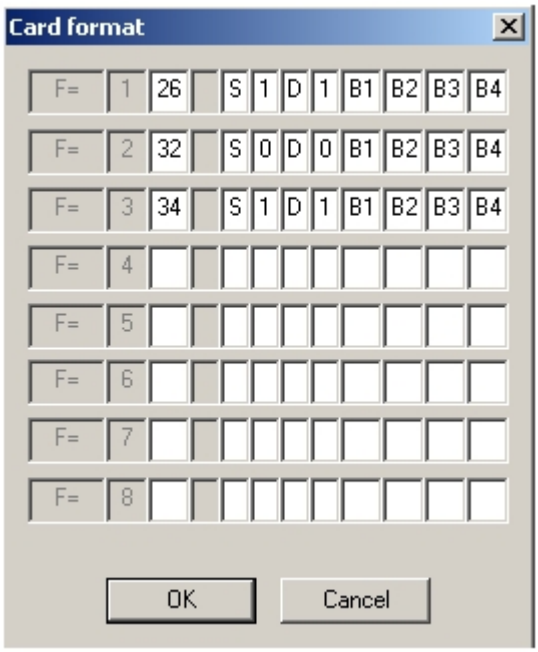
d. Set **Permanent code-reading** checkbox if it's necessary to read card code permanently and regardless of exit impulse duration (**4**).
e. Set **Groups** checkbox if it's necessary to create groups of exits (**5**).
f. If 11-wires keyboard is used in controller it's necessary to set the corresponding checkbox (**6**).
g. Set **In/out commands transmission** checkbox if it's necessary to transmit **In** and **Out** commands (**7**).
h. If it's necessary to use reader reverse color set the corresponding checkbox (**8**).
i. If it's necessary to use ABA-card long format set the corresponding checkbox (**9**).

> **Note.**
>
> ABA is the MSR ABA TK2 emulation interface for magnetic access cards.

j. If it's necessary to create alarm message on exiting the closed time zone set the corresponding checkbox (**10**).
k. If it's necessary to create standard message on exiting the closed time zone set the corresponding checkbox (**11**).
l. If it's necessary to switch entrances set the corresponding checkbox and select necessary type (**12**).

7. Click Card format and set up used formats of access cards of Wiegand type. After setting click **OK** in order to save formats.

> **Note.**
>
> 3 formats card of Wiegand type are set on default: 26-,32- and 34-bit.



Reader / Number of bit in access card	Access card format
CR-1 Wiegand Card Swipe / 26 bit-generic	26-S-1-D-1-B1-B2-B3-B4
NR-1 Magstripe, NR5 / 32 bit	32-S-0-D-0-B1-B2-B3-B4
HID / 34 bit	34-S-1-D-1-B1-B2-B3-B4

CI-1 Wiegand Card Insert / 26 bit	26-I-1-D-1-B1-B2-B3-B4
PR-1-280 Cotag Proximity / 32 bit	32-S-0-D-0-B1-B2-B3-B4
HG-1 Hand Geometry / 32 bit	32-S-0-D-0-B1-B2-B3-B4
5 Conductor Keypad / 32 bit	32-S-0-D-0-B1-B2-B3-B4
Dorado Magstripe Cards / 34 bit	34-S-1-D-0-B1-B2-B3-B4
Sielox Wiegand Cards / 34 bit	34-S-1-D-1-B1-B2-B3-B4
Sielox Proximity Cards / 32 bit	32-S-0-D-0-B1-B2-B3-B4

8. On setting panel of **N1000 panel** object click **Apply** to save changes.

Setting up controller of *HoneyWell N-1000 ACS* is completed.

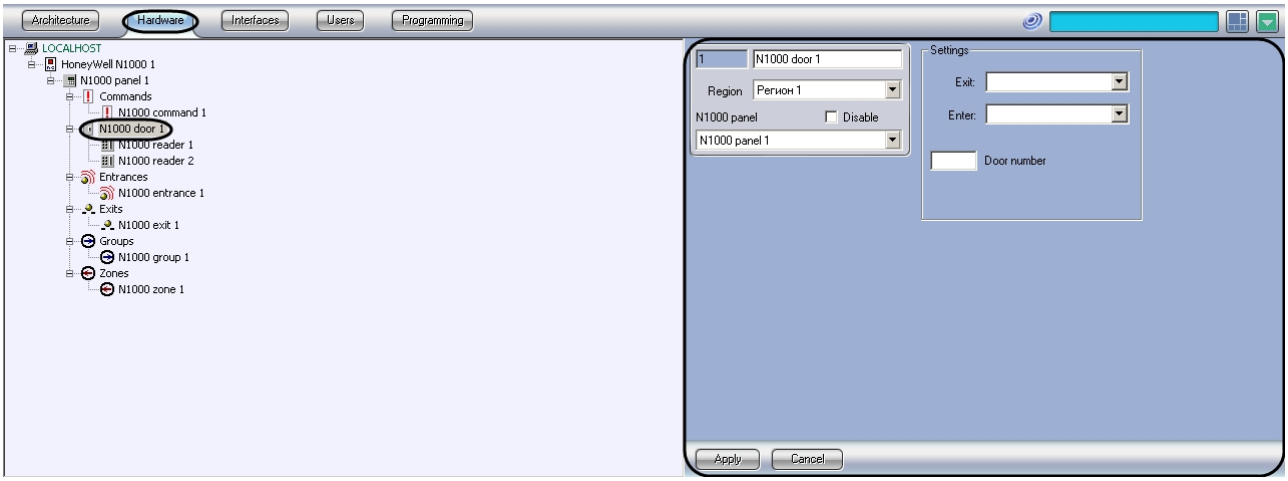
4.4 Setting up HoneyWell N-1000 access points

Setting up access points of *HoneyWell N-1000 ACS* controller is carried out the following way:

1. Setting up access point parameters.
2. Setting up access point readers.

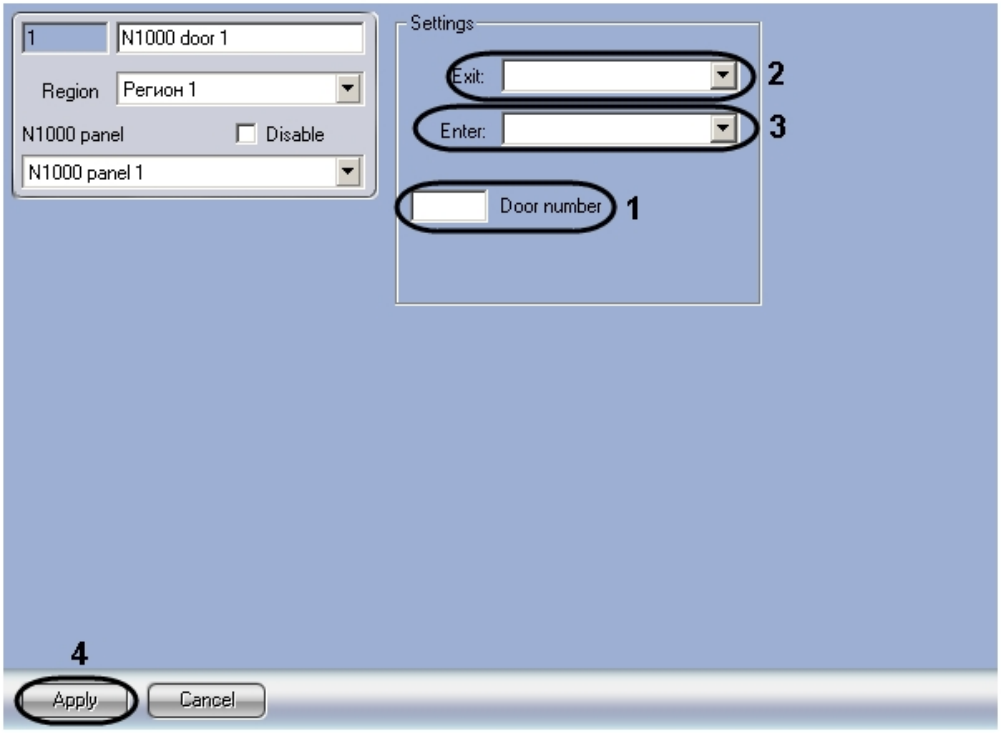
4.4.1 Setting up HoneyWell N-1000 access point parameters

Setting up access point parameters is carried out on setting panel of **N1000 door** object. This object is created on the basis of **N1000 panel** object on **Hardware** tab of **System settings** dialog box.



Setting up access point parameters is carried out the following way:

1. Go to setting panel of **N1000 door** object.

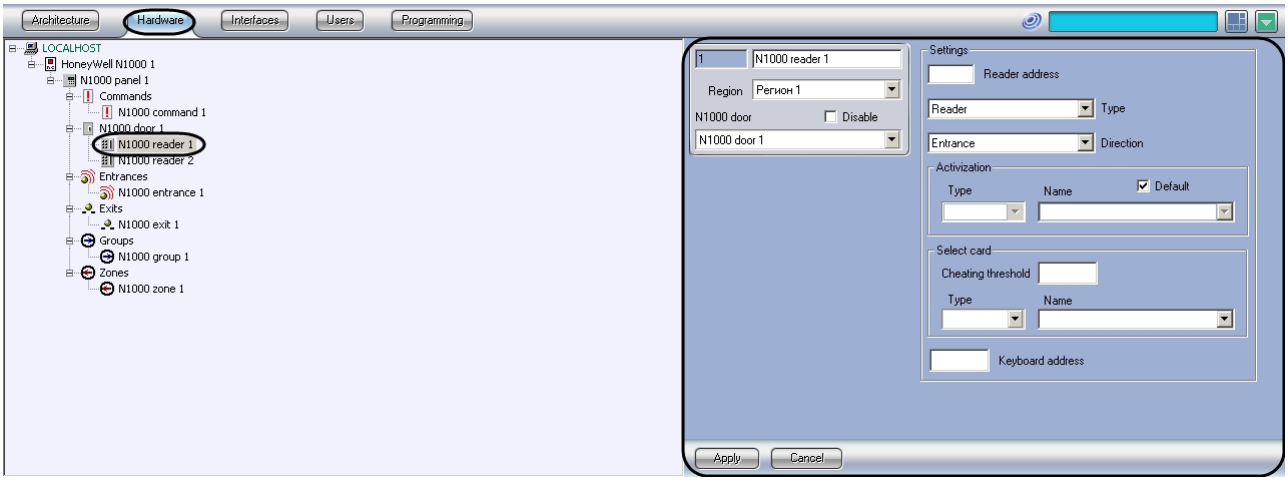


2. In **Door number** set access point address (**1**).
3. From **Exit:** dropdown list select **Region** object that corresponds to the territory located on the side of reader's entrance (**2**).
4. From **Enter:** dropdown list select **Region** object that corresponds to the territory located on the side of reader's exit (**3**).
5. Click **Apply** in order to save changes (**4**).

Setting up access point parameters is completed.

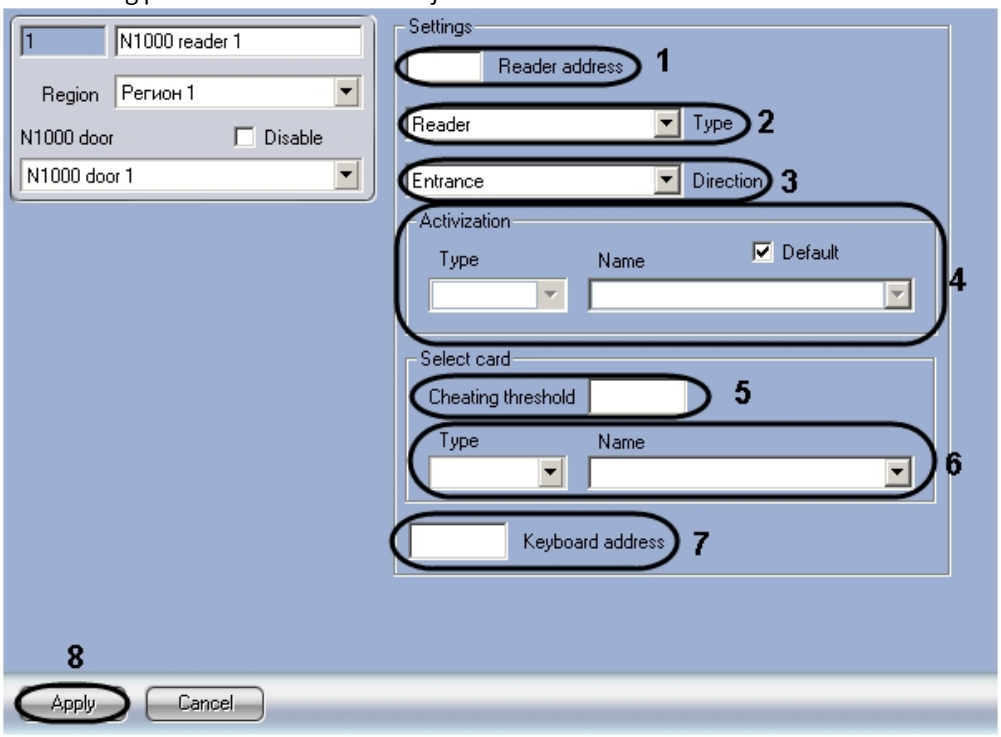
4.4.2 Setting up HoneyWell N-1000 access point readers

Setting up access point readers is carried out on setting panel of **N1000 reader** object. This object is created on the basis of **N1000 door** object on **Hardware** tab of **System settings** dialog box.



Setting up access point readers is carried out the following way:

1. Go to setting panel of **N1000 reader** object.



2. Set reader address in the corresponding field (**1**).
3. Select reader type from **Type** dropdown list: reader only, reader with keyboard, keyboard only (**2**).
4. If keyboard is used set its address in the corresponding field (**7**).
5. From **Direction** dropdown list select reader operation mode: entrance or exit (**3**).
6. In **Activization** setting group deselect **Default** checkbox and select object corresponding to relay or relay group (both entrance and exit) for activation after passing through this reader (**4**).

> **Note.**
>
> If **Default** checkbox is set then there is activation of device that is set on default in equipment settings.

7. In **Cheating threshold** field set a number that corresponds to the number of failed access attempts after which there is activation of specified device (**5**).
8. From **Type** and **Name** dropdown lists select object corresponding to relay or relay group (both entrance and exit) for activation after attempt to select access card (**6**).
9. Click **Apply** in order to save changes (**8**).

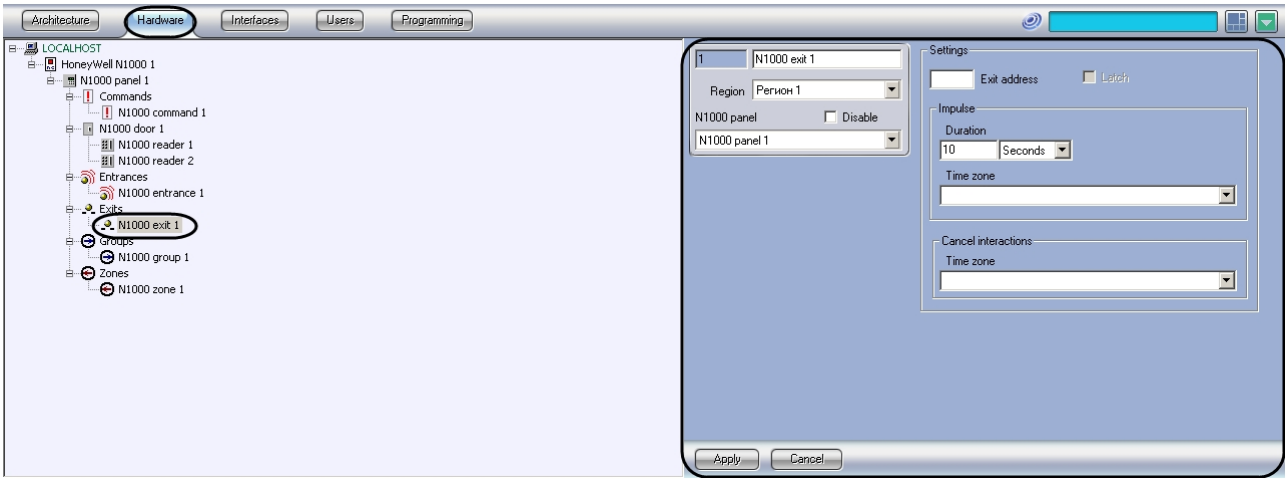
Setting up access point reader is completed.

4.5 Setting up HoneyWell N-1000 relays

4.5.1 Setting up HoneyWell exits

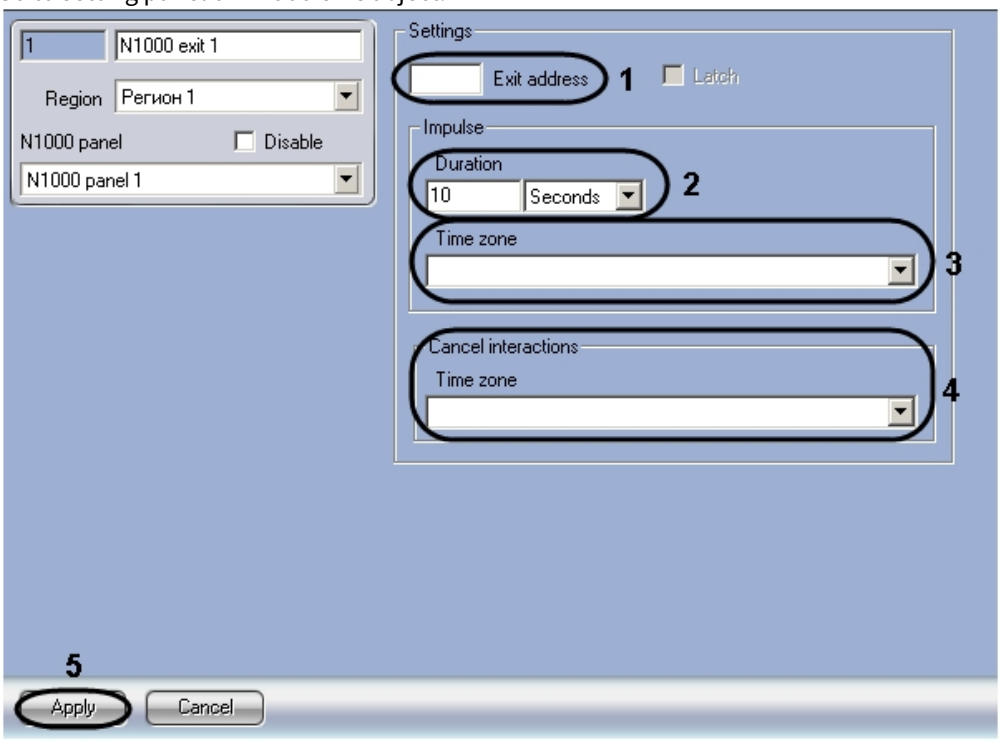
Creation and setting up of exits

Setting up exits is carried out on setting panel of **N1000 exit** object. This object is created on the basis of **N1000 panel** object on **Hardware** tab of **System settings** dialog box.



Setting up exits is carried out the following way:

1. Go to setting panel of **N1000 exit** object.



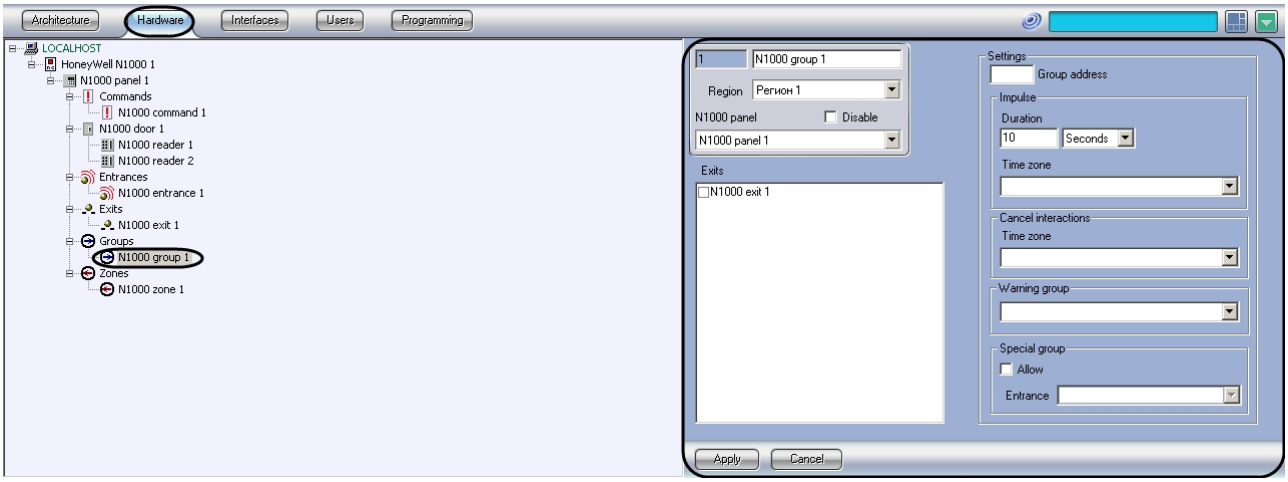
2. Set address of exit in **Exit address** (**1**).

3. In **Impulse** setting group set parameters of exit impulse:
    a. In **Duration** field set the period during which power supply (impulse) will be given to exit (**2**);
    b. From the corresponding dropdown list select time zone during which power supply will be given to exit automatically (**3**).
4. If it's necessary set time zone during which there will be no interactions connected with this exit (**4**).
5. Click **Apply** in order to save changes (**5**).

Setting up exit is completed.

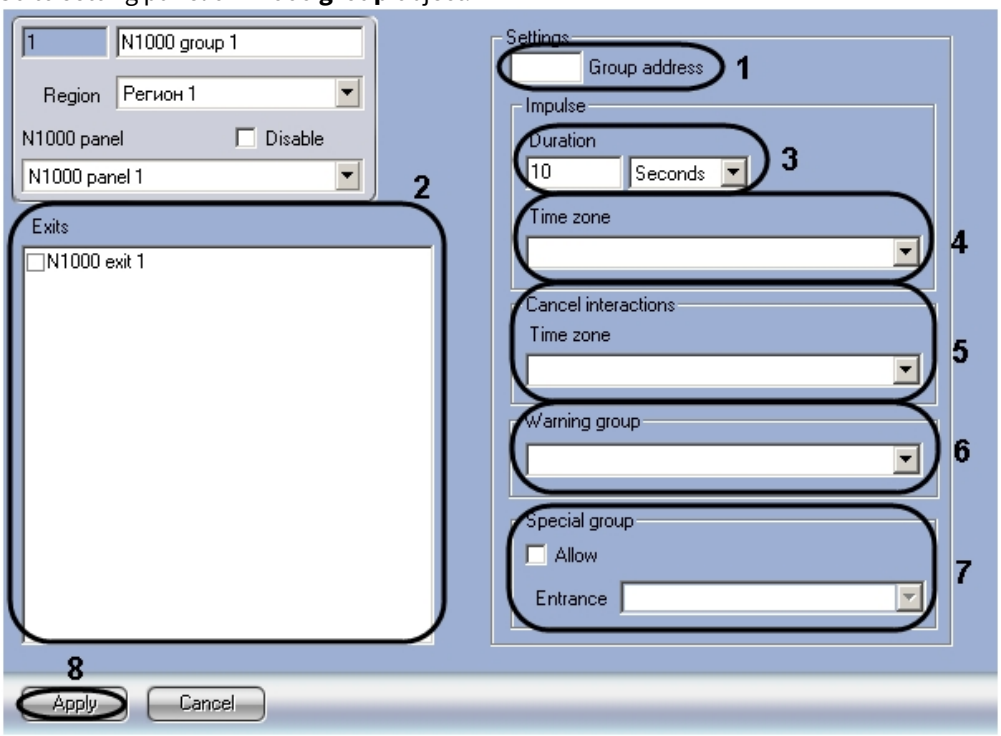
Creation and setting up of exit groups

Setting up exit groups is carried out on setting panel of **N1000 group** object. This object is created on the basis of **N1000 panel** object on **Hardware** tab of **System settings** dialog box.



Setting up exit groups is carried out the following way:

1. Go to setting panel of **N1000 group** object.



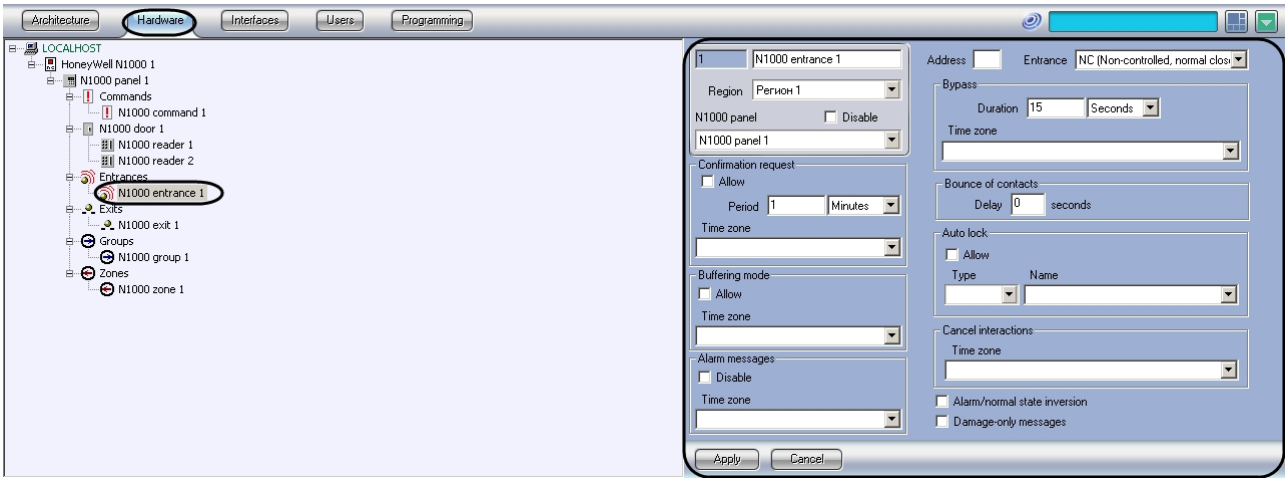
2. Set address of exit group in the corresponding field (**1**).
3. Set checkboxes opposite those exits that should be in the group (**2**).
4. In **Impulse** setting group set parameters of exit group impulse:
5. In **Duration** field set the period during which power supply (impulse) will be given to exit group (**3**);
6. From the corresponding dropdown list select time zone during which power supply will be given to exit group automatically (**4**).
7. If it's necessary set time zone during which there will be no interactions connected with this exit group (**5**).
8. If it's necessary select warning group from the corresponding dropdown list (**6**).
9. If it's necessary set this group as a special group for exit: set **Allow** checkbox and select necessary object from the list (**7**).
10. Click **Apply** in order to save changes (**8**).

Setting up exit groups is completed.

4.5.2 Setting up HoneyWell N-1000 entrances

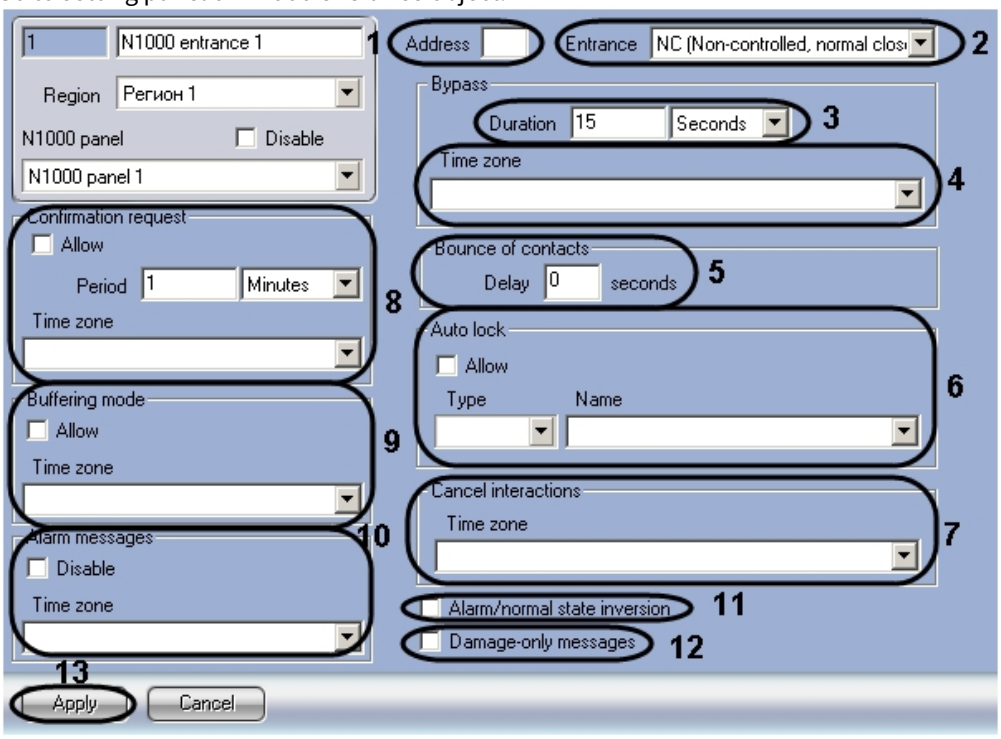
Creation and setting up of entrances

Setting up entrances is carried out on setting panel of **N1000 entrance** object. This object is created on the basis of **N1000 panel** object on **Hardware** tab of **System settings** dialog box.



Setting up entrances is carried out the following way:

1. Go to setting panel of **N1000 entrance** object.



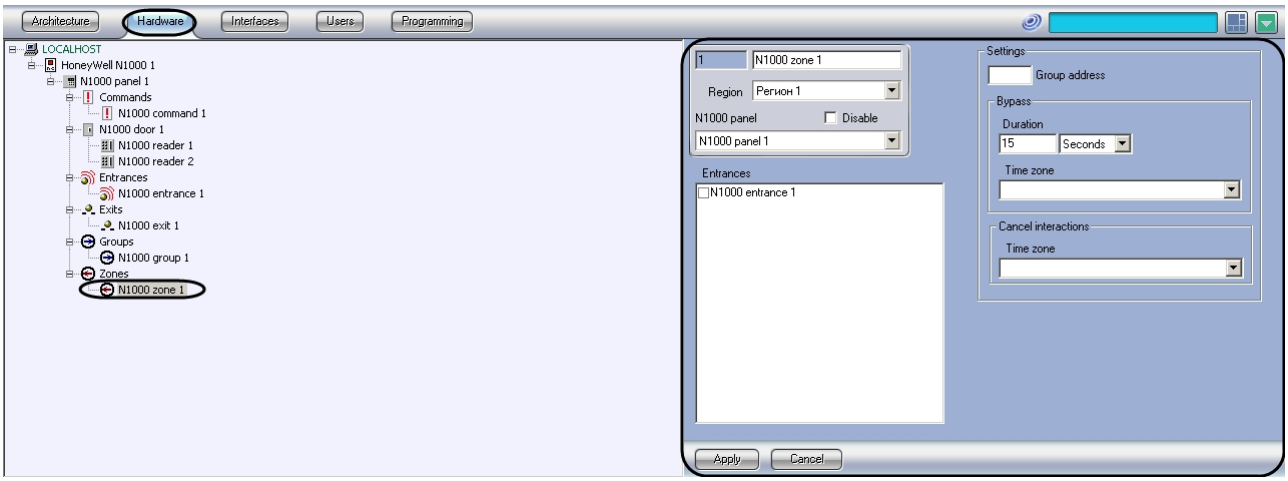
2. Set entrance address in **Address** (**1**).
3. From **Entrance** dropdown list select type of entrance (**2**).
4. In **Bypass** setting group set parameters of entrances disconnection:
    a. In **Duration** field set period during which entrance will be disconnected (**3**);
    b. From corresponding dropdown list select time zone during which entrance disconnects automatically (**4**).
5. Set delay of bounce of entrance contacts (in seconds) in the corresponding field (**5**).
6. If it's necessary to switch on **Auto lock** function set **Allow** checkbox and select necessary object from **Type** and **Name** dropdown lists (**6**).
7. If it's necessary set time zone during which there will be no interactions connected with this entrance (**7**).

8. If it's necessary to require confirmation while activating entrance then set **Allow** checkbox, set period of time during which the confirmation should be received and select time zone during which the confirmation will be required (**8**).
9. If it's necessary to activate buffering mode then set **Allow** checkbox and select time zone during which this mode will be active (**9**).
10. If it's necessary to disable alarm messages then set **Disable** checkbox and select time zone during which there will be the prohibition (**10**).
11. Set **Alarm/normal state inversion** checkbox if it's necessary to substitute **Alarm** state with **Normal** and vice versa (**11**).
12. If it's necessary to limit incoming messages by damage-only messages then set the corresponding checkbox (**12**).
13. Click **Apply** in order to save changes (**13**).

Setting up entrance is completed.

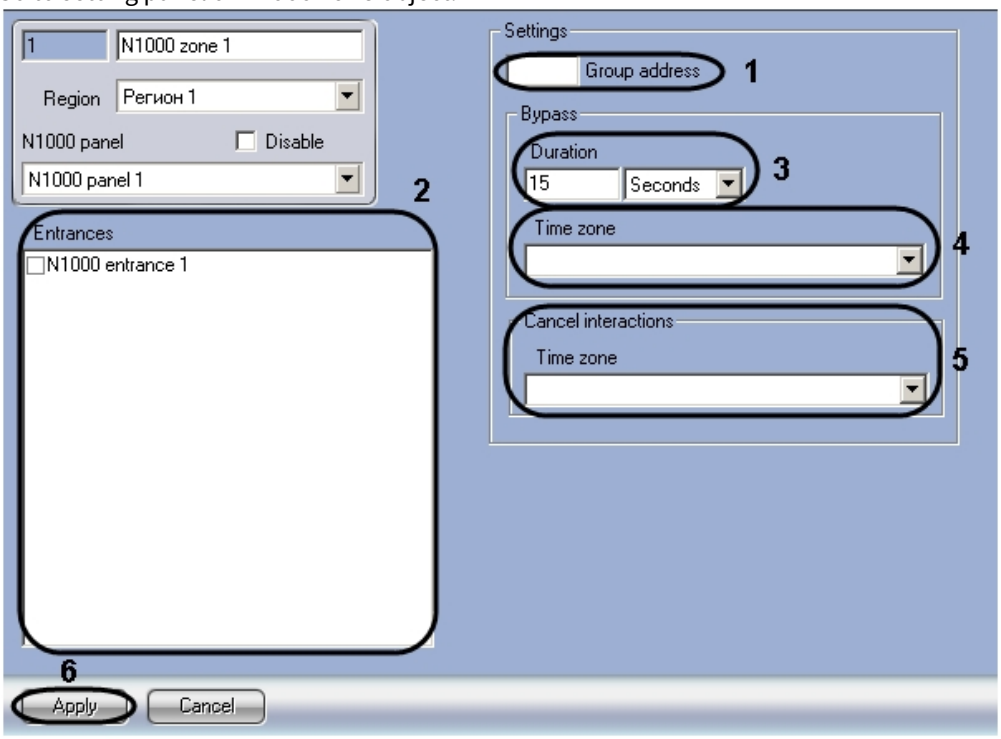
Creation and setting up of entrance groups

Setting up entrance groups is carried out on setting panel of **N1000 zone** object. This object is created on the basis of **N1000 panel** object on **Hardware** tab of **System settings** dialog box.



Setting up entrance groups is carried out the following way:

1. Go to setting panel of **N1000 zone** object.

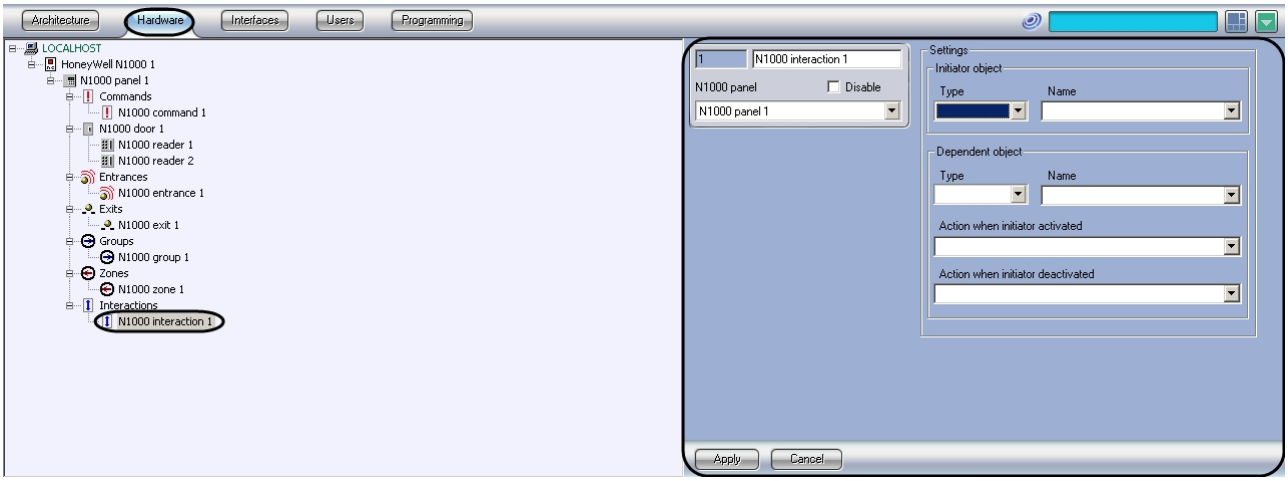


2. Set address of entrance group in the corresponding field (**1**).
3. Set checkboxes opposite those entrances that should be in the group (**2**).
4. In **Bypass** setting group set parameters of disconnection entrance group:
    a. In **Duration** field set period during which entrances of the group will be disconnected (**3**);
    b. From corresponding dropdown list select time zone during which entrances of the group disconnect automatically (**4**).
5. If it's necessary set time zone during which there will be no interactions connected with this group of entrances (**5**).
6. Click **Apply** in order to save changes (**6**).

Setting up of entrances groups is completed.

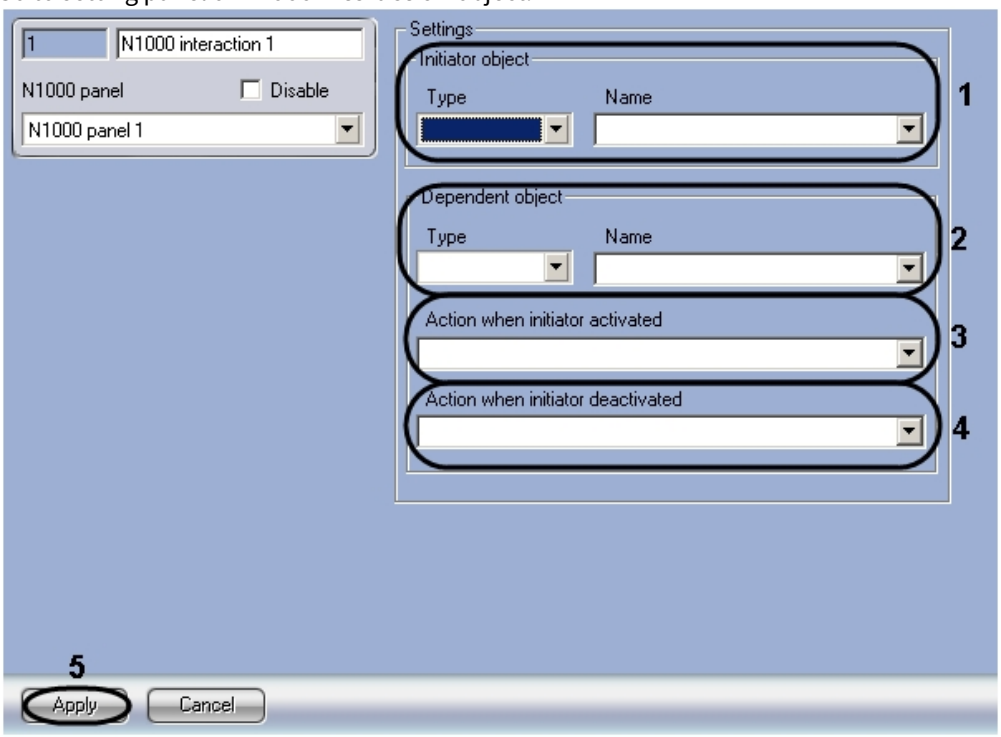
4.5.3 Setting up HoneyWell N-1000 relay interlock

Setting up relay or relay groups interlocks is carried out on setting panel of **N1000 interaction** object. This object is created on the basis of **N1000 panel** object on **Hardware** tab of **System settings** dialog box.



Setting up relay or relay groups interlocks is carried out the following way:

1. Go to setting panel of **N1000 interaction** object.

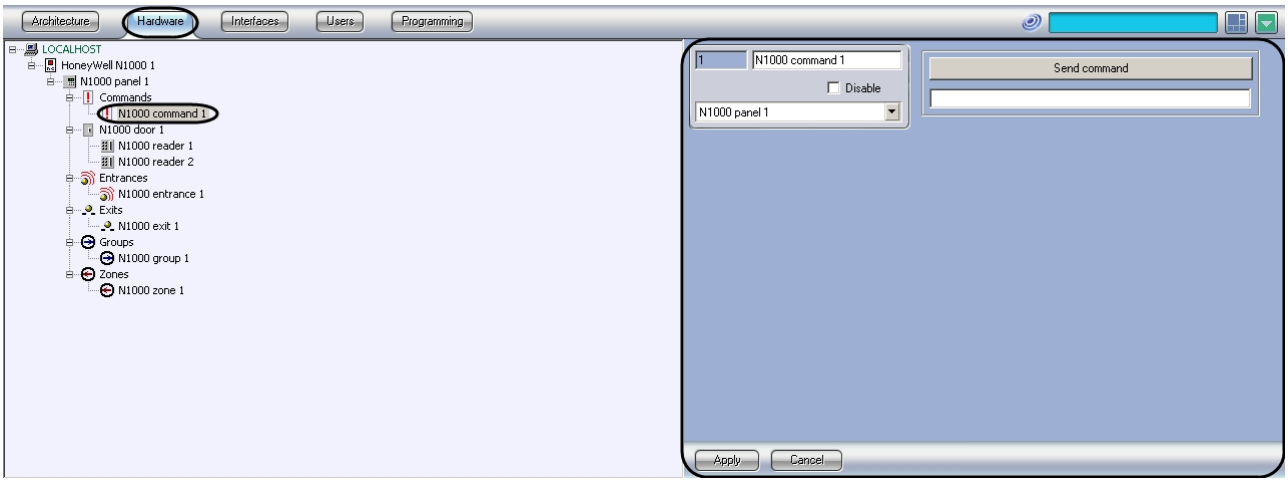


2. In **Initiator object** parameter group from **Type** and **Name** dropdown lists select action object that corresponds to relay or relay group. Activating and deactivating this object you activate specified action of action object (**1**).
3. In **Dependent object** parameter group from **Type** and **Name** dropdown lists select action object that corresponds to relay or relay group. Activating and deactivating this object you activate specified action of initiator object (**2**).
4. From the corresponding dropdown list select action that should be done when initiator activated (**3**).
5. From the corresponding dropdown list select action that should be done when initiator deactivated (**4**).
6. Click **Apply** in order to save changes (**5**).

Setting up interlock is completed.

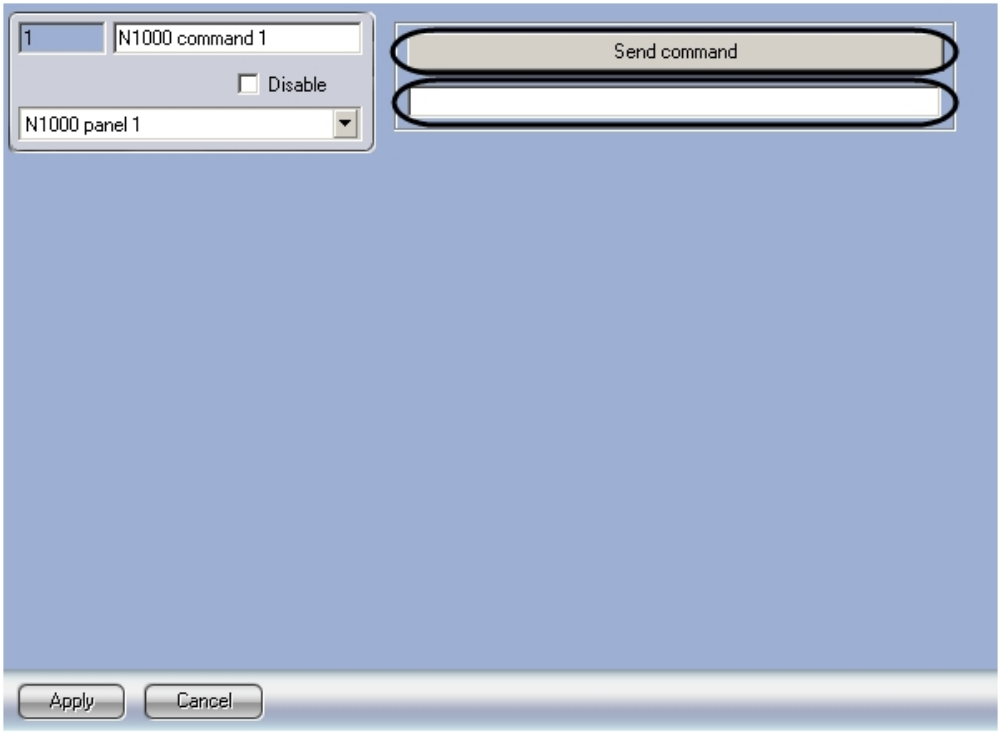
4.6 Sending commands to HoneyWell N-1000 controller

Sending commands to controller is carried out from setting panel of **N1000 command** object. This object is created on the basis of **N1000 panel** object on **Hardware** tab of **System settings** dialog box.



Sending commands to controller is carried out the following way:

1. Go to setting panel of **N1000 command** object.



2. Set command in the line (**1**).

> **Note.**
>
> Description of commands is given in official reference documentation for HoneyWell N1000 system.

3. Click **Send command** (**2**).

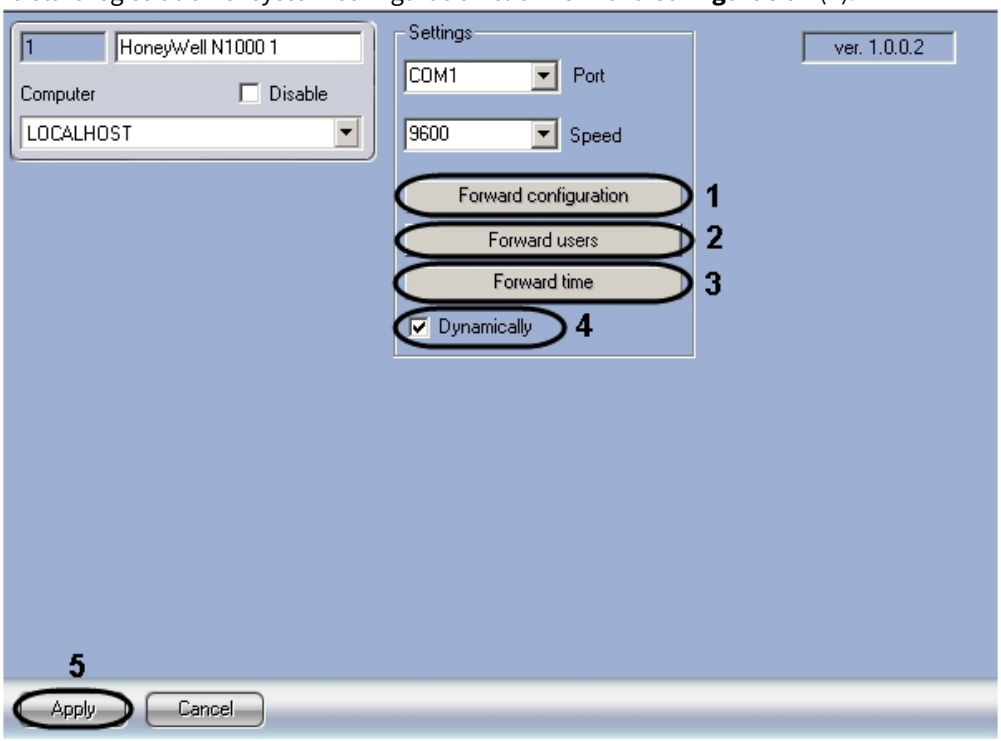
Sending command to controller is completed.

4.7 Configuration registration

4.7.1 Registration of maximal configuration

Registration of maximal configuration is carried out on setting panel of **HoneyWell N1000** object the following way:

1. To start registration of system configuration click **Forward configuration** (**1**).



2. To register access cards of users click **Forward users** (**2**).
3. To synchronize time click **Forward time** (**3**).
4. Set **Dynamically** checkbox if it's necessary to register configuration changes automatically (**4**).
5. Click **Apply** in order to save changes (**5**).

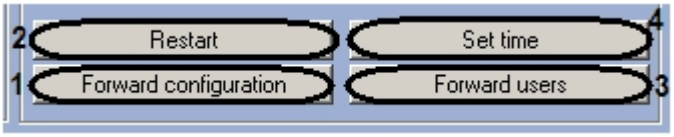
Registration of maximal configuration is completed.

4.7.2 Registration of selected controller configuration

Registration of selected controller configuration is carried out on setting panel of **N1000 panel** object corresponding to required controller. It is carried out the following way:

1. To register controller configuration click **Forward configuration** (**1**).

> **Note.**
>
> To restart controller click **Restart** (**2**).



2. To register access cards of users click **Forward users** (**3**).
3. To synchronize time click **Set time** (**4**).

Registration of controller configuration is completed.

5 Working with HoneyWell N-1000 integration module

5.1 General information about working with HoneyWell N-1000 module

The following interface objects are used for working with *HoneyWell N-1000* integration module:

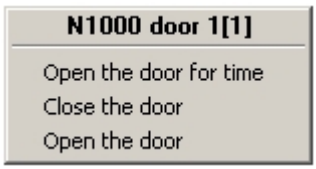
1. Card.
2. Event protocol.
3. Access Manager.
4. Time and Attendance.

Information about these interface objects' configuration is given Axxon PSIM Software package: Administrator's Guide, Access Manager Module Settings and Operation Guide and Time and Attendance Module Settings and Operation Guide.

Working with interface objects is given in details in Axxon PSIM Software package: Operator's Guide.

5.2 Controlling HoneyWell N-1000 access point

Controlling access point of *HoneyWell N-1000 ACS* is carried out in **Card** interactive box using feature menu of **N1000 door** object.

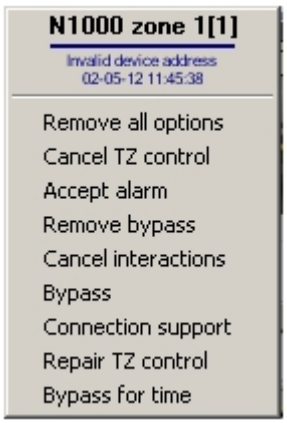


Description of feature menu commands of **N1000 door** object is given in the table.

Command of feature menu	**Functionality**
Open the door for time	Open passage through access point for some time
Close the door	Close passage through access point
Open the door	Open passage through access point

5.3 Controlling HoneyWell N-1000 entrances or entrance group

Controlling entrances or entrance group of *HoneyWell N-1000 ACS* is carried out in **Card** interactive box using feature menu of **N1000 entrance** or **N1000 zone** objects.

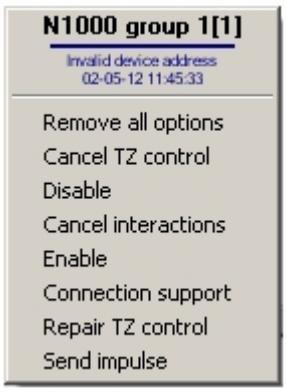


Description of feature menu commands of **N1000 entrance** and **N1000 zone** objects is given in the table.

Command of feature menu	**Functionality**
Remove all options	Remove all options of entrance (entrance group)
Cancel TZ control	Cancel controlling entrance (entrance group) using TZ
Accept alarm	Take **Alarm** status and switch entrance (all entrances of the group) into normal state
Remove bypass	Remove bypass of entrance (all entrances of the group)
Cancel interactions	Cancel interactions connected with this entrance (entrance group)
Bypass	Enable bypass of entrance (entrance group)
Connection support	Enable connection support of entrance (entrance group)
Repair TZ control	Repair controlling entrance (entrance group) using TZ
Bypass for time	Enable bypass of entrance (entrance group) for some time

5.4 Controlling HoneyWell N-1000 exits or exit group

Controlling exits or exit group of *HoneyWell N-1000 ACS* is carried out in **Card** interactive box using feature menu of **N1000 exit** or **N1000 group** objects.



Description of feature menu commands of **N1000 exit** and **N1000 group** objects is given in the table.

Command of feature menu	**Functionality**
Remove all options	Remove all options of exit (exit group)
Cancel TZ control	Cancel controlling exit (exit group) using TZ
Disable	Disable exit (all exits of the group)
Cancel interactions	Cancel interactions connected with this exit (exit group)
Enable	Enable exit (all exits of the group)
Connection support	Enable connection support of exit (exit group)
Repair TZ control	Repair controlling exit (exit group) using TZ
Send impulse	Send impulse to exit (all exits of the group)