AxxonSoft

Setup and User Guide for the

Gate Parking

Integration Module

Version 1.3

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1 List of Terms

Access Control System (ACS): a hardware and software suite for access control and management.

Integrated system *ACS Gate Parking*: a system, which integrates hardware and software. The system is used to manage access, to record and to keep track of vehicle movements, and to manage actuators at exit/entry points of stay. The system supports permanent and temporary passes and the access approval mode.

Intellect Server: a computer that has the **Server** installation version of the *Intellect* software package installed.

Controller: the main hardware device in the *Gate Parking ACS*. This device enables receiving and processing the information signals that come from card readers, managing external actuators (for example, locks) by using built-in relays, and controlling security zones.

2   Introduction

2.1   Purpose of the Document

The *Setup and User Guide for the Gate Parking Integration Module* is a reference guide for administrators and operators of the *Gate Parking* module. This module is part of access control systems (*ACS*) implemented based on the *Intellect* software package.

This Guide contains:

1. general information on the *Gate Parking* integration module;
2. guidance on how to configure the *Gate Parking* integration module;
3. guidance on how to work with the *Gate Parking* integration module.

2.2   Structure and Functionality of Intellect's ACS

ACS hardware integration modules are used for:

1. configuring interaction between *Intellect* and *ACS* hardware;

Note: The hardware is a third-party ACS system.

2. processing the information coming from readers, electromechanical locks, and other access control devices;
3. managing access-related actuators (devices for locking and unlocking doors, gates, and so on).

2.3   General Information on the Gate Parking Integration Module

The *Gate* integration module is part of *ACS* systems based on *Intellect*. The module is used for:

1. configuring the *Gate Parking ACS* (manufactured by Ravelin-LTD);
2. enabling interaction between the *Gate Parking ACS* and *Intellect* (monitoring and management).

Note: Detailed information on the Gate Parking ACS *can be found in the vendor documentation.*

Before configuring the *Gate Parking* integration module:

1. Install the *Gate Parking ACS* hardware at the secure facility (refer to the *ACS Gate Parking* reference documentation).
2. Connect the *Gate Parking ACS* to the Server.

3   Configuring the Gate Parking Integration Module;

3.1   Steps to Configure the Gate Parking Integration Module

To configure the *Gate Parking* integration module:

1. configure the *Gate Parking ACS'*s connection to the *Intellect* Server
2. automatically create the object tree;
3. forward the Gate Parking ACS's configuration to the controllers;
4. configure the *Gate* controllers;
5. configuring the *Gate* exits;
6. configure the *Gate* sensors;
7. configuring the *Gate* indicators;
8. configure the *Gate* relays;
9. configure the *Gate* readers;
10. set the access modes.

3.2   Configuring the Gate Parking ACS's Connection

To configure the Gate Parking ACS's connection, use the relevant **GATE PARKING** object. To create this object, go to the **Settings** dialog box, click the **Hardware** tab, and select the parent **Computer** object (Fig. 3.2—1).
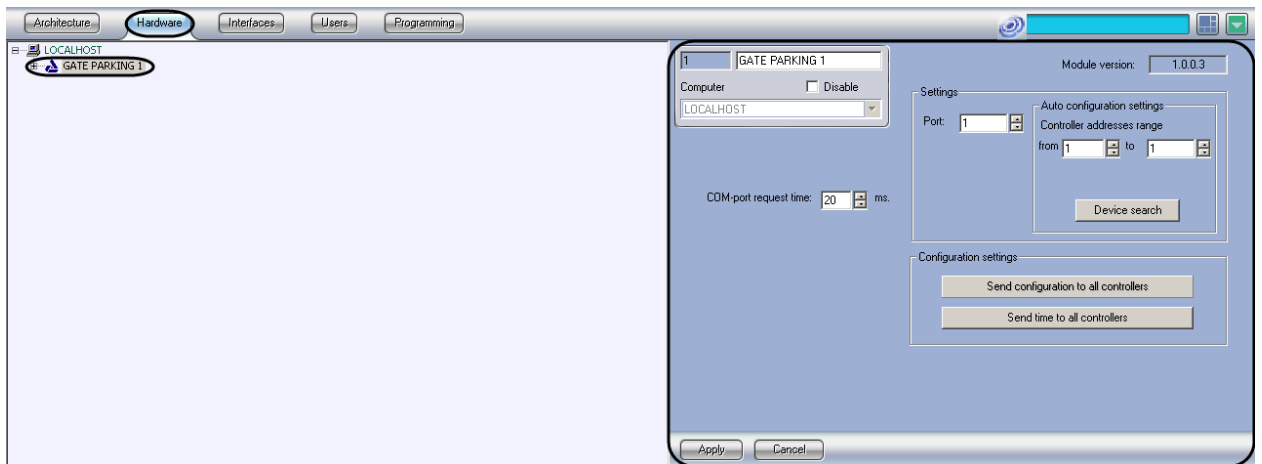

<p align="center">Fig. 3.2—1 GATE PARKING object</p>

*Note: The **Module version** field shows the current version of the* Gate Parking *integration module (Fig. 3.2—1).*

To configure the *Gate Parking* integration module's connection:

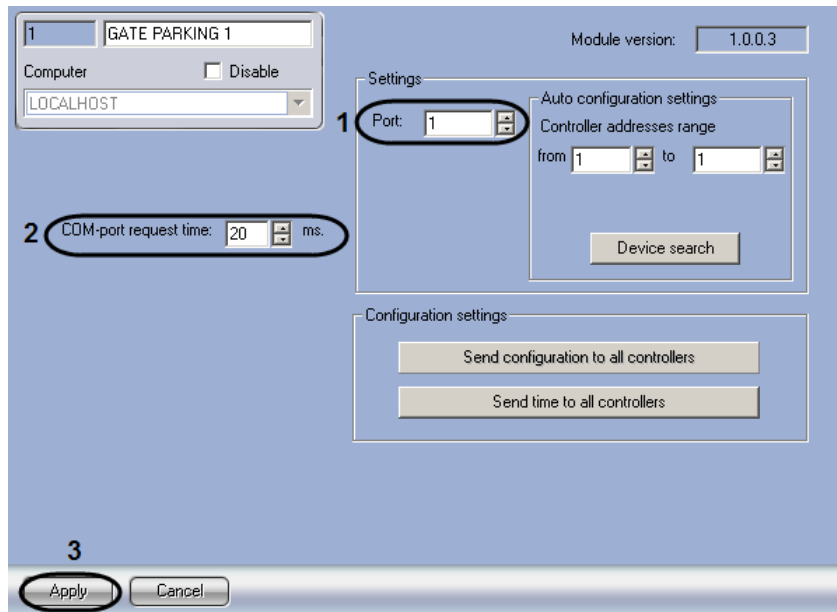1. Go to the **GATE PARKING** object's setup panel (Fig. 3.2—2).

Fig. 3.2—2 Configuring the connection of a GATE PARKING object

2. In the **Port** field, use the **up** and **down** buttons to enter the number of the COM port to connect to *Gate Parking ACS* (Fig. 3.2—2, **1**).
3. In the **COM-port request time** field, enter a time period (msec). This is the time period between two consecutive polls of the device connection (Fig. 3.2—2, **2**).
4. Click **Apply** (Fig. 3.2—2, **3**).

The *Gate Parking ACS's* connection is now configured.

3.3 Automatically Creating the Object Tree

To automatically create the object tree:

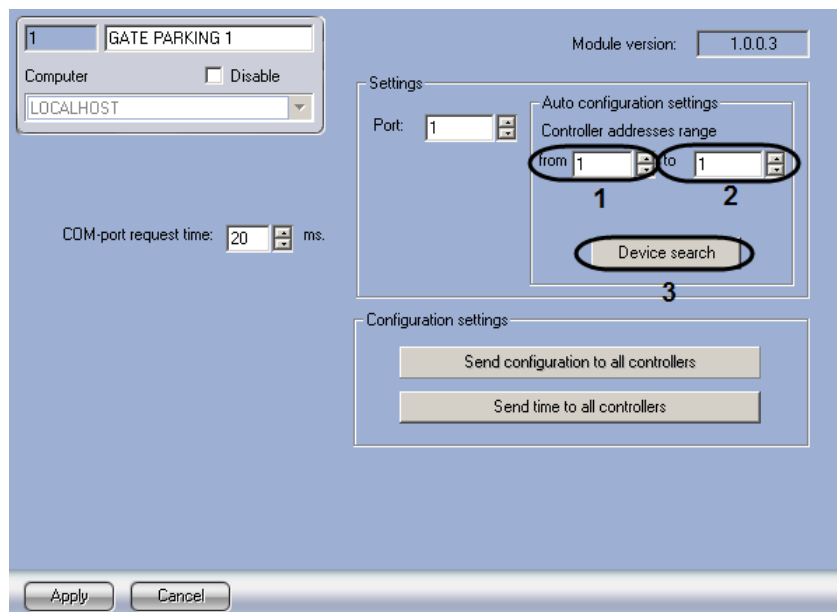1. Go to the **GATE PARKING** object's setup panel (Fig. 3.3—1).

Fig. 3.3—1 Automatically creating the object tree

2. Enter the controller's address range: in the **from** field, enter the first address in the range (Fig. 3.3—1, **1**); in the **to** field, enter the last address (Fig. 3.3—1, **2**)**.**
3. Click **Device search** (Fig. 3.3—1, **3**).

This launches an automatic search for hardware-configured and connected *Gate* controllers. Objects corresponding to found controllers and devices connected to them, are automatically created in the object tree under the relevant GATE PARKING object.

The *Gate Parking ACS*'s object tree is now created.

3.4   Forwarding the Gate Parking ACS's Configuration to the Controllers

Forwarding the configuration to all *Gate* controllers is described in this section. Also it is possible to forward the configuration to each controller separately (see the *Managing the Configuration of a Gate Controller* section).

To forward the *Gate Parking ACS*'s configuration:

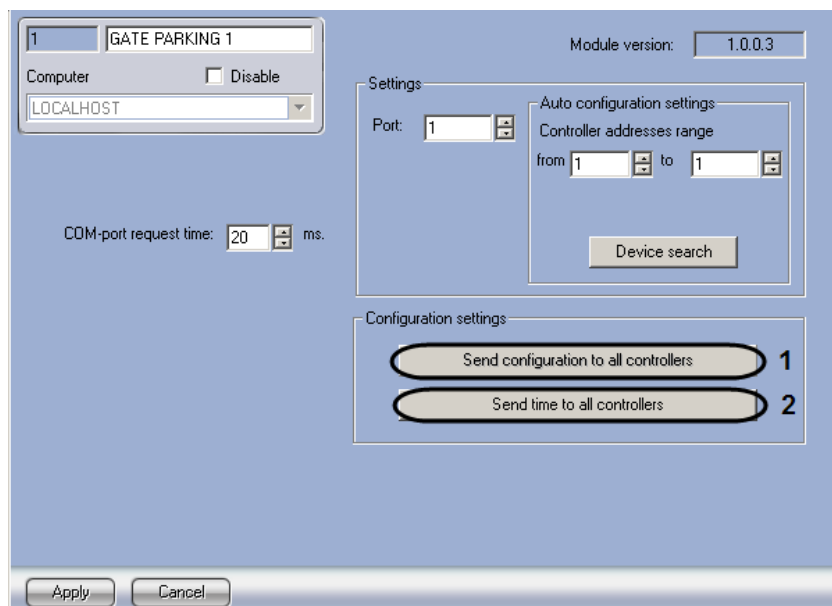1. Go to the **GATE PARKING** object's setup panel (Fig. 3.4—1).

Fig. 3.4—1 Forwarding the *Gate Parking ACS*'s configuration

2. To forward the *Gate Parking ACS'*s configuration to all the controllers, click **Send configuration to all controllers** (Fig. 3.4—1).

Note: This records the following in each controller's internal memory:

1. *the time zones;*
2. *the data on the system's users;*
3. *the user access levels.*

3. To synchronize the time of all the controllers with the computer's time, click **Send time to all controllers** (Fig. 3.4—1).

3.5 Configure Gate Controllers

To configure a *Gate* controller, use the setup panel of the relevant **GATE controller** object. To find this object, go to the **Settings** dialog box, click the **Hardware** tab, and select the parent **GATE PARKING** object (Fig. 3.5—1).

Fig. 3.5—1 GATE controller object

3.5.1 Configure the Connection of Gate Controllers

To configure the connection of a *Gate* controller:

1. Go to the setup panel of the relevant **GATE controller** object (Fig. 3.5—2).
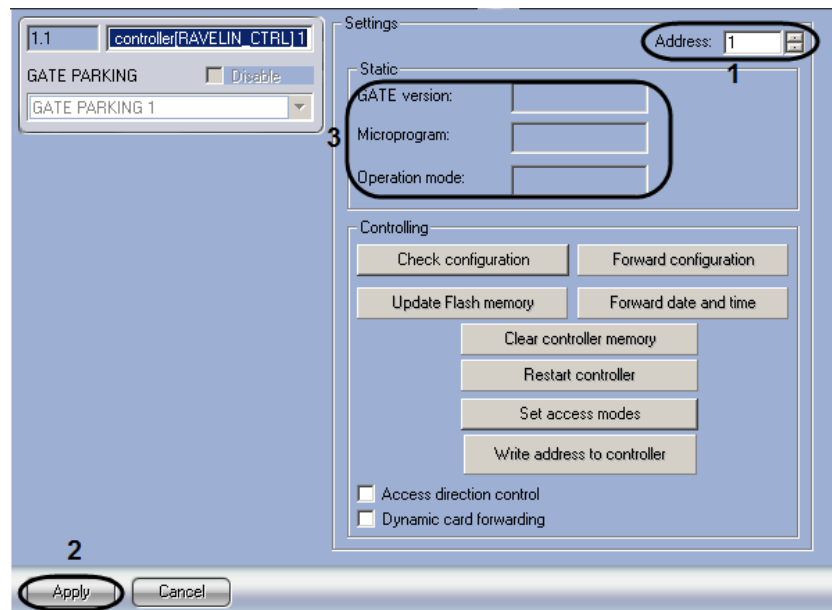

Fig. 3.5—2 Configuring a *Gate* controller

2. In the **Address** field, use the **up** and **down** buttons to enter the controller's address (Fig. 3.5—2, **1**).
3. Click **Apply** (Fig. 3.5—2, **2**).

Note: If the controller with that address is connected to the Intellect *Server, you will see the following controller parameters in the* **Static** *group (Fig. 3.5—2, **3**):*

> 1. *controller version (the **GATE version** field);*

If the controller parameters are not shown, check the controller's connection to the computer (refer to the Gate ACS vendor documentation).

The *Gate* controller is now configured.

3.5.2 Managing the Configuration of a Gate Controller

For a *Gate* controller, configuration management includes:

1. Checking the controller's user configuration. To check the configuration, click **Check configuration** (Fig. 3.5—3, **1**).
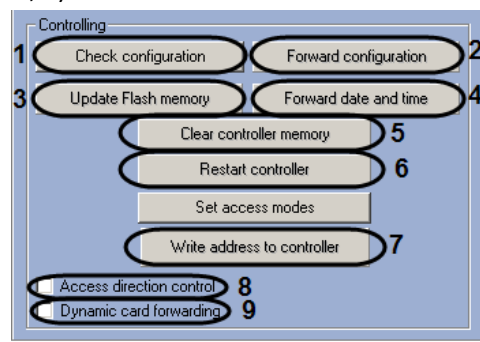

Fig. 3.5—3 Managing a *Gate* controller

2. Forwarding the controller's configuration. To record, in the controller, the data configured in *Intellect* (a card number database of staff and visitors; access levels and their corresponding time zones), click **Forward configuration** (Fig. 3.5—3, **2**).
3. Updating the controller's memory. To update the memory, click **Update Flash memory** (Fig. 3.5—3, **3**).

Attention! For each controller, update its memory once per day. Use the Intellect's program or script for automatic memory update (see Appendix 1. Automatic updating the Flash memory of Gate controller section).

4. Forwarding date and time. To synchronize the controller's date and time with the computer's date and time, click **Forward date and time** (Fig. 3.5—3, **4**).
5. Clearing the controller's memory. To clear the controller's memory, click **Clear controller memory** (Fig. 3.5—3, **5**).

Note. All data on users, time zones and access levels are deleted at clearing of controller memory.

6. Restarting the controller. To restart the controller, click **Restart controller** (Fig. 3.5—3, **6**).
7. Writing the controller's address. To write the address to the controller, click **Write address to controller** (Fig. 3.5—3, **7**).
8. Enabling the double-access control. To enable the double-access control, select the **Access direction control** checkbox (Fig. 3.5—3, **8**).
9. To enable the automatic forwarding of the user access cards registered in *Intellect*, when cards are changed, added, or removed, select the **Dynamic card forwarding** checkbox (Fig. 3.5—3, **9**).

3.6 Configuring Gate Exits

To configure a *Gate* exit, use the setup panel of the relevant **GATE exit** object. To find this object, go to the **Settings** dialog box, click the **Hardware** tab, and select the parent **GATE controller** object (Fig. 3.6—1).
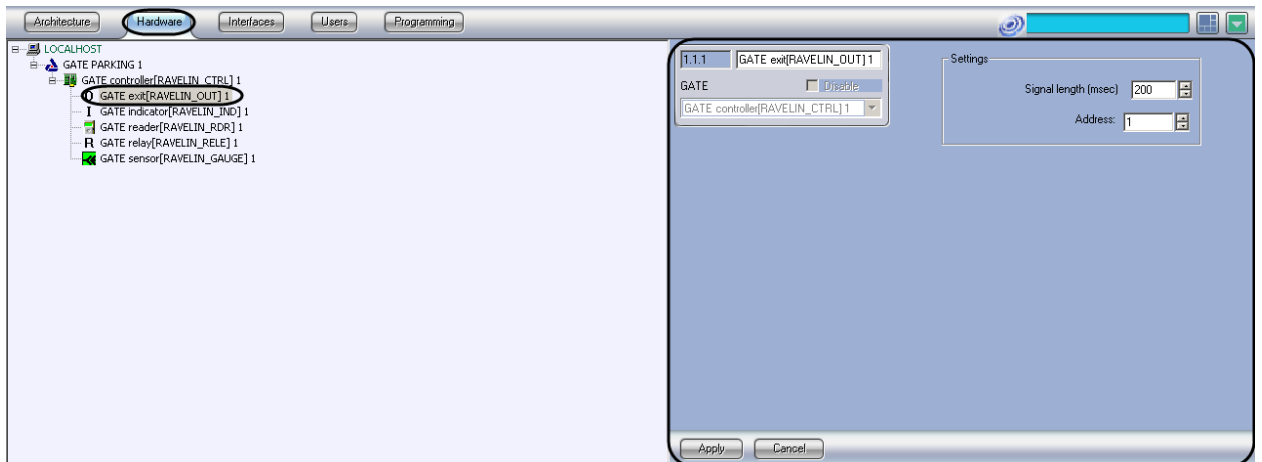

Fig. 3.6—1. GATE exit object

To configure a *Gate* exit:

1. Go to the setup panel of the relevant **GATE exit** object (Fig. 3.6—2).
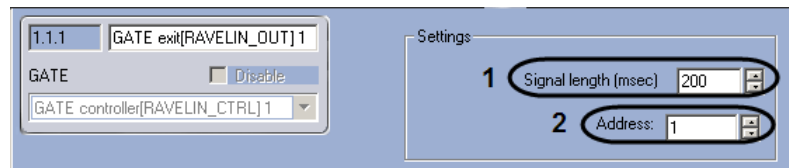

Fig. 3.6—2 Configuring a Gate exit

2. In the **Signal length (msec)** field, use the **up** and **down** buttons to enter the signal length (in milliseconds) (Fig. 3.6—2, **1**).
3. In the **Address** field, use the **up** and **down** buttons to enter the exit's address (Fig. 3.6—2, **2**).
4. Click **Apply**.

The Gate exit is now configured.

3.7 Configuring Gate Sensors

To configure a *Gate* sensor, use the setup panel of the relevant **GATE sensor** object. To find this object, go to the **Settings** dialog box, click the **Hardware** tab, and select the parent **GATE controller** object (Fig. 3.7—1).
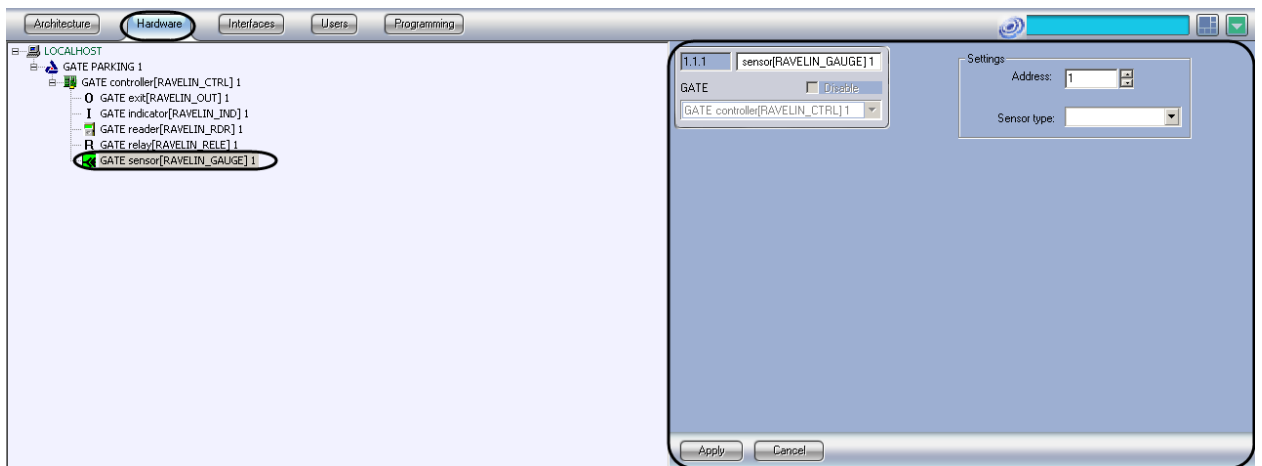
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Fig. 3.7—1 GATE controller object

To configure a *Gate* sensor:

1. Go to the setup panel of the relevant **GATE sensor** object (Fig. 3.7—2).
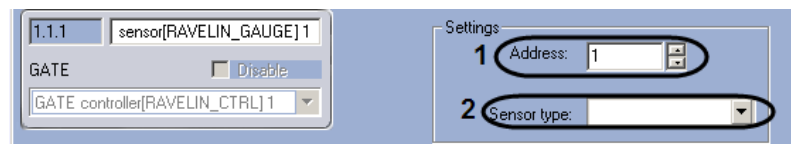

Fig. 3.7—2 Configuring a Gate sensor

2. In the **Address** field, use the **up** and **down** buttons to enter the sensor's address (Fig. 3.7—2, **1**).
3. In the **Sensor type** drop-down list, select the sensor's type (Fig. 3.7—2, **2**).
4. Click **Apply**.

The *Gate* sensor is now configured.

3.8 Configuring Gate Indicators

To configure a *Gate* indicator, use the setup panel of the relevant **GATE indicator** object. To find this object, go to the **Settings** dialog box, click the **Hardware** tab, and select the parent **GATE controller** object (Fig. 3.8—1).

Fig. 3.8—1 GATE indicator object

To configure a *Gate* indicator:

1. Go to the setup panel of the relevant **GATE indicator** object (Fig. 3.8—2).
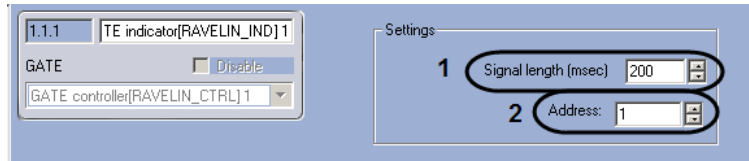

Fig. 3.8—2 Configuring a *Gate* indicator

2. In the **Signal length (msec)** field, use the **up** and **down** buttons to enter the signal length (in milliseconds) (Fig. 3.8—2, **1**).
3. In the **Address** field, use the **up** and **down** buttons to enter the indicator's address (Fig. 3.8—2, **2**).
4. Click **Apply**.

The Gate indicator is now configured.

3.9   Configuring Gate Relays

To configure a *Gate* relay, use the setup panel of the relevant **GATE relay** object. To find this object, go to the **Settings** dialog box, click the **Hardware** tab, and select the parent **GATE controller** object (Fig. 3.9—1).

Fig. 3.9—1 GATE relay object

To configure a *Gate* relay:

1. Go to the setup panel of the relevant **GATE relay** object (Fig. 3.9—2).

Fig. 3.9—2 Configuring a Gate relay

2. In the **Signal length (msec)** field, use the **up** and **down** buttons to enter the signal length (in milliseconds) (Fig. 3.9—2, **1**).
3. In the **Address** field, use the **up** and **down** buttons to enter the relay's address (Fig. 3.9—2, **2**).
4. Click **Apply**.

The *Gate* relay is now configured.

3.10 Configuring Gate Readers

To configure a *Gate* reader, use the setup panel of the relevant **GATE reader** object. To find this object, go to the **Settings** dialog box, click the **Hardware** tab, and select the parent **GATE controller** object (Fig. 3.10—1).
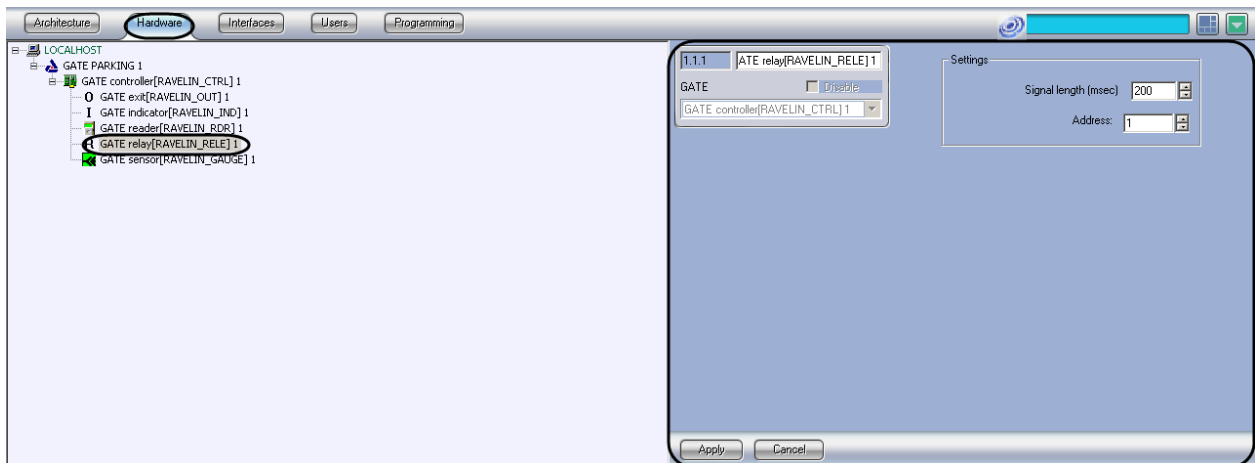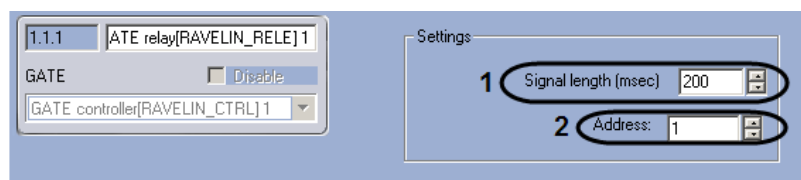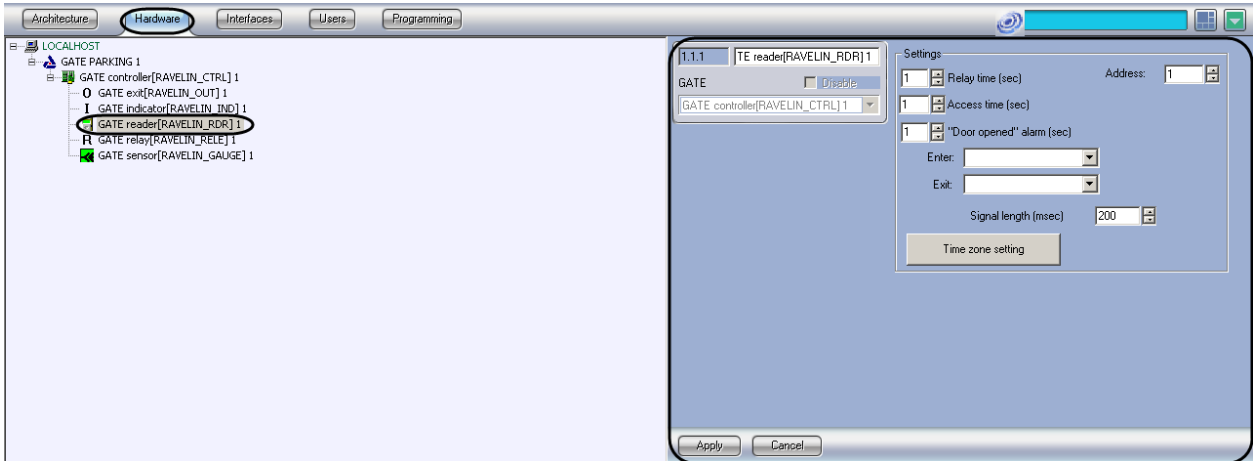

Fig. 3.10—1 GATE reader object

To configure a *Gate* reader:

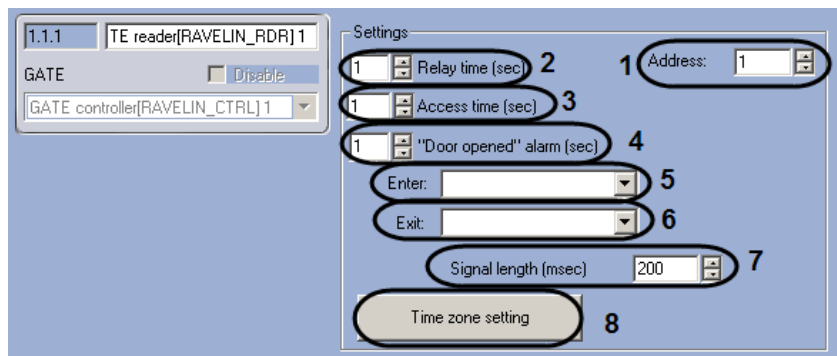1. Go to the setup panel of the relevant **GATE reader** object (Fig. 3.10—2).

Fig. 3.10—2 GATE reader object

2. In the **Address** field, use the **up** and **down** buttons to enter the reader's address (Fig. 3.10—2, **1**).

3. In the **Relay time (sec)** field, use the **up** and **down** buttons to enter a time period (in seconds). This is the time period when the lock will be opened (Fig. 3.10—2, **2**).

Attention! To keep the lock permanently blocked, enter 0 in the Relay time (sec) field. In this case, the lock cannot be opened with any of the available methods (a key, an RTE button, or a command).

4. In the **Access time (sec)** field, use the **up** and **down** buttons to enter a time period (in seconds). This is the time period during which the user is allowed to open the door (Fig. 3.10—2, **3**).

*Note: Both the access time period and the relay time period start when the relay opens (that is, when the lock is unlocked). For this reason, the value in the **Access time (sec)** field cannot be lower than the value in the **Relay time (sec)** field.*

5. In the **"Door opened" alarm (sec)** field, use the **up** and **down** buttons to enter a time period (in seconds). This is the time period during which the door must be closed after opening (Fig. 3.10—2, **4**).

*Note: If the time period in the **"Door opened" alarm (sec)** field expires and the door remains open, a **Door opened** event is generated.*

6. In the **Enter** drop-down list, select the **Area** object that represents the area which you enter when going through the reader (Fig. 3.10—2, **5**).
7. In the **Exit** drop-down list, select the **Area** object that represents the area which you exit when going through the reader (Fig. 3.10—2, **6**).
8. In the **Signal length (msec)** field, use the **up** and **down** buttons to enter the signal length (in milliseconds) (Fig. 3.10—2, **7**).
9. Set time zones: click **Time zone setting** (Fig. 3.10—2, **8**); then,
   9.1. for each time zone of the *Gate Parking* device go to its drop-down list (in the Time interval column) and select an *Intellect* time zone (Fig. 3.10—3, **1**).
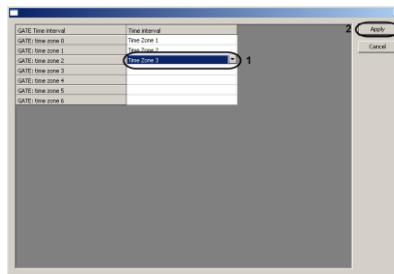

Fig. 3.10—3 Setting time zones

   9.2. In the window for setting time zones, click **Apply** (Fig. 3.10—3, **2**).
10. Click **Apply**.

The *Gate* reader is now configured.

3.11 Setting Access Modes

The *Gate Parking* ACS supports 4 operation modes for user access cards (Table 3.11—1)

Table 3.11—1 Description of the card operation modes

Card operation mode	Mode description
Simple	To gain access, it is enough for the user to show his/her card.
PIN coded	To gain access, the user must confirm his/her card with a PIN.
Approved	To gain access, the user must confirm his/her card with another card (an approving card).
Approving	The card is used for confirming another card (an approved card).

To set access modes you must one of these modes to each user.

To set access modes:

1. Go to the setup panel of the relevant **GATE controller** object (Fig. 3.11—1).
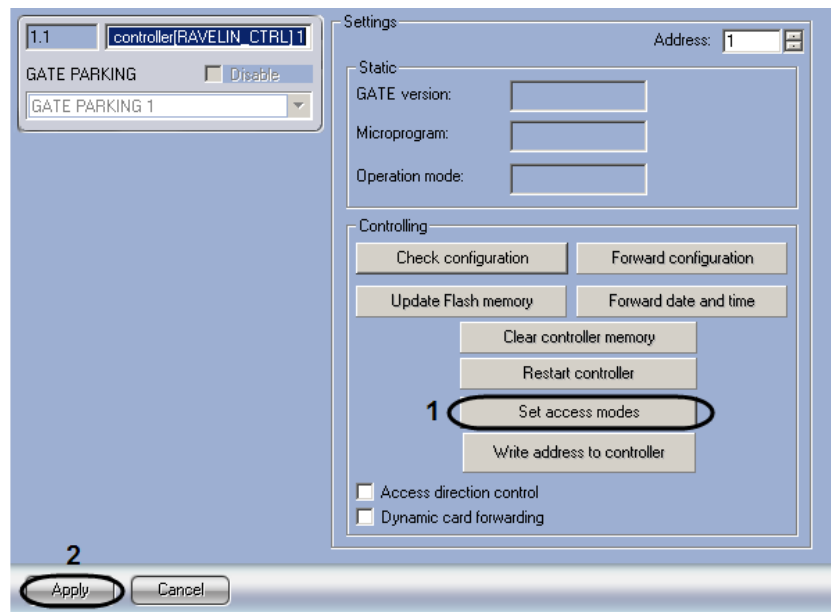
Fig. 3.11—1 Setting access modes

2. Click **Set access modes** (Fig. 3.11—1, **1**).
3. For each user, go to his/her drop-down list (the **Card type** column) and select the required card type (Fig. 3.11—2, **1**).
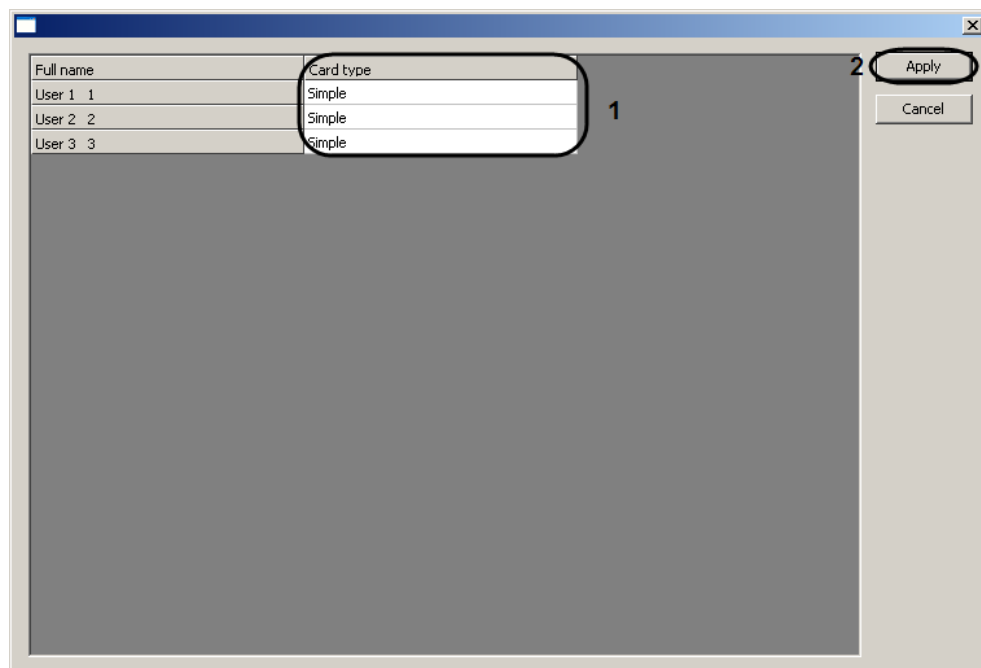

Fig. 3.11—2 Window for setting access modes

4. In the window for setting access modes, click **Apply** (Fig. 3.11—2, **2**).
5. Click **Apply** (Fig. 3.11—1, **2**).

The access modes are now set.

4 Working with the Gate Parking Integration Module

4.1 General Information

To work with the *Gate Parking* integration module, use the following GUI objects:

1. **Map**;
2. **Event log**.

The information on how to configure these GUI object can be found in the *Intellect* administrator guide.

The detailed information on how to work with the GUI objects can be found in the *Intellect* operator guide.

4.2 Managing Gate Controllers

To manage a *Gate* controller, go to the **Map** window and use the menu of the relevant **GATE controller** object (Fig. 4.2—1, Table 4.2—1).
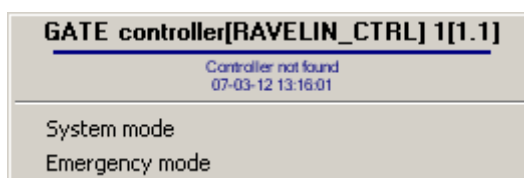

Fig. 4.2—1 GATE controller menu

Table 4.2—1 GATE controller menu functions

Menu item	Executed function
System mode	Switches the *Gate* controller to system (main) mode
Emergency mode	Switches the *Gate* controller to emergency mode

4.3 Managing Gate Exits

To manage a *Gate* exit, go to the **Map** window and use the menu of the relevant **GATE exit** object (Fig. 4.3—1, Table 4.3—1).

Fig. 4.3—1 GATE exit menu

Table 4.3—1 GATE exit functions

Menu item	Executed function
Disable	Disables the *Gate* exit
Deactivate for time	Temporarily disables the *Gate* exit
Enable	Enables the *Gate* exit
Activate for time	Temporarily enables the *Gate* exit

4.4 Managing Gate Indicators

To manage a *Gate* indicator, go to the **Map** window and use the menu of the relevant **GATE** indicator object (Fig. 4.4—1, Table 4.4—1).
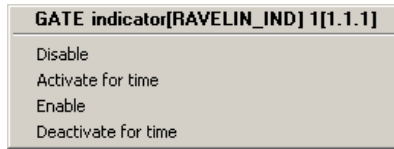
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Fig. 4.4—1 GATE indicator menu

Table 4.4—1 GATE indicator functions

Menu item	Executed function
Disable	Disables the *Gate* indicator
Deactivate for time	Temporarily disables the *Gate* indicator
Enable	Enables the *Gate* indicator
Activate for time	Temporarily activates the *Gate* indicator

4.5   Managing Gate Relays

To manage a *Gate* relay, go to the **Map** window and use the menu of the relevant **GATE relay** object (Fig. 4.5—1, Table 4.5—1).
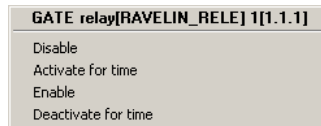

Fig. 4.5—1 GATE relay menu

Table 4.5—1 GATE relay functions

Menu item	Executed function
Disable	Disables the *Gate* relay
Deactivate for time	Temporarily disables the *Gate* relay
Enable	Enables the *Gate* relay
Activate for time	Temporarily activates the *Gate* relay

5 Appendix 1. Automatic updating the Flash memory of Gate controller

5.1 General information

Automatic updating the Flash memory of *Gate* controller can be performed using the programming functional of *Intellect* software:

1. programs in the embedded programming language of *Intellect* software;
2. script in the JavaScript language.

Detailed information on how to write programs and skripts in *Intellect* software is given in *INTELLECT Software Package: Programming Guide* and *INTELLECT Software Package: Programming Guide (Jscript)* documents.

5.2 Program example

For automatic updating the Flash memory of *Gate* controller use the following program:

OnTime (W,D,X,Y,"00","00","10")

{

// program will function every day at 00 hours 00 minutes and 10 seconds

DoReact("GATE_CTRL","1.1","UPDATE_FLASH");

//The Flash memory update in the Gate controller with the «1.1» ID

}