Guide for configuring and working with the MorphoAccess SIGMA Lite integration module

ACFA PSIM 1.7

Last update 19/09/2025

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1 Introduction into the Guide for configuring and working with the MorphoAccess SIGMA Lite integration module

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1.1 The purpose of the document

The *Guide for configuring and working with the MorphoAccess SIGMA Lite integration module* is a reference and information manual and is intended for configuration specialists of the *MorphoAccess SIGMA Lite* module. This module is a part of the access control system (ACS) implemented on the basis of *ACFA PSIM*.

The Guide has the following information:

1. General information about the *MorphoAccess SIGMA Lite* integration module.
2. Configuration of the *MorphoAccess SIGMA Lite* integration module.
3. Operation of the *MorphoAccess SIGMA Lite* integration module.

1.2 General information about the MorphoAccess SIGMA Lite integration module

The *MorphoAccess SIGMA Lite* integration module is a part of the access control system (ACS) implemented on the basis of *ACFA PSIM*. It is used for:

1. Configuration of the *MorphoAccess SIGMA Lite* terminal (manufactured by *IDEMIA*).
2. Interaction between the *MorphoAccess SIGMA Lite* terminal and *ACFA PSIM* (monitoring, control).

Note

For detailed information on the *MorphoAccess SIGMA Lite* ACS, refer to the official documentation for this system.

Before you start configuring the *MorphoAccess SIGMA Lite* module, do the following:

1. Install the *MorphoAccess SIGMA Lite* terminal on the protected facility (see *MorphoAccess SIGMA Lite* reference documentation).
2. Connect the *MorphoAccess SIGMA Lite* terminal to the *Axxon PSIM* Server (see *MorphoAccess SIGMA Lite* reference documentation).

2 Supported hardware and licensing of the MorphoAccess SIGMA Lite module

Manufacturer	IDEMIA 2 Place Samuel de Champlain 92400Courbevoie France Phone: +33 (0)1 73 60 20 20 Email: info@idemia.com
Integration type	SDK
Hardware connection	Ethernet

Supported hardware

Hardware	Function
All MorphoAccess SIGMA Lite terminal series	Biometric terminal

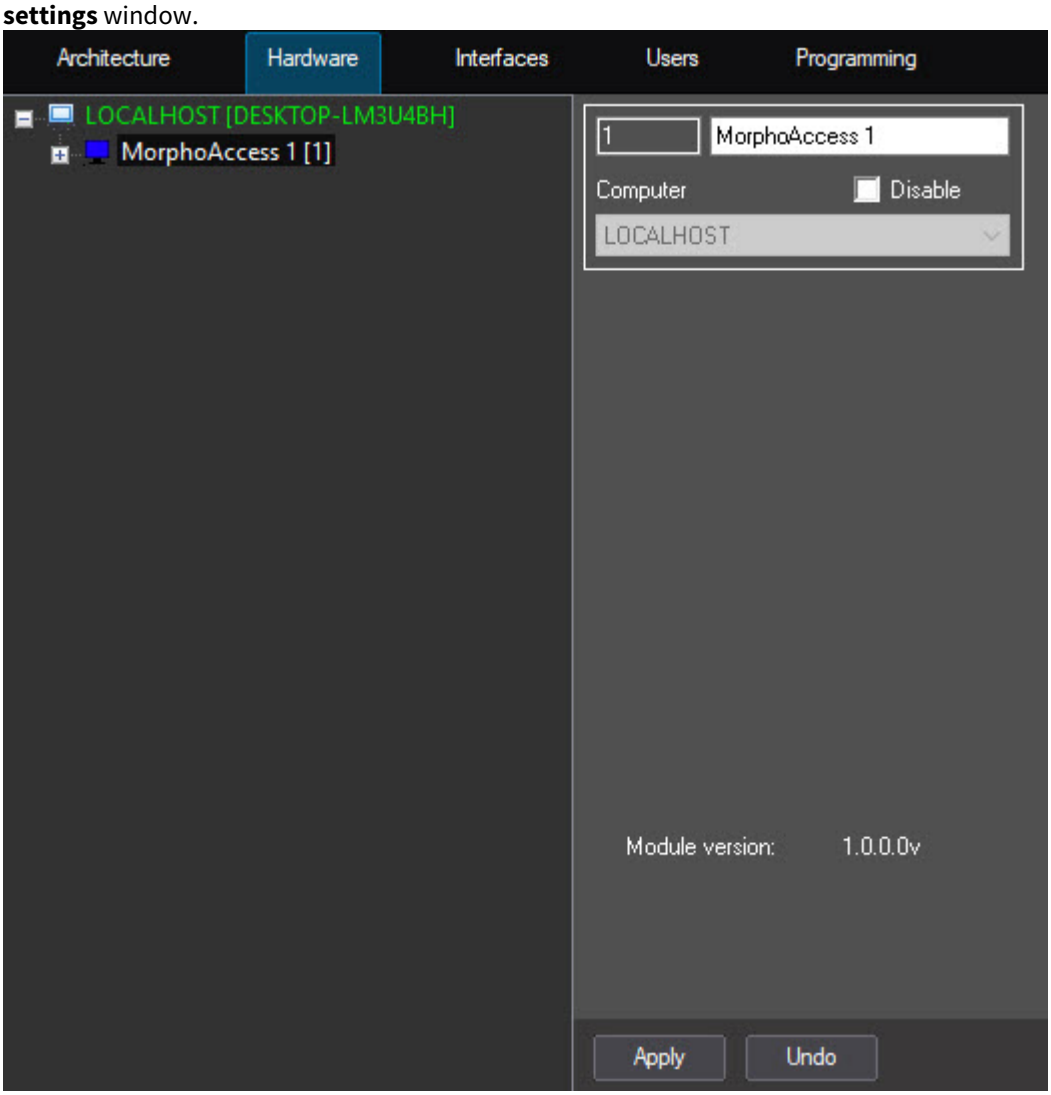
Module licensing
Per one terminal.

3 Configuring the MorphoAccess SIGMA Lite integration module

3.1 Activation of the MorphoAccess SIGMA Lite integration module

To activate the *MorphoAccess SIGMA Lite* integration module, do the following:

1. Create the **MorphoAccess** object on the basis of the **Computer** object on the **Hardware** tab of the **System settings** window.



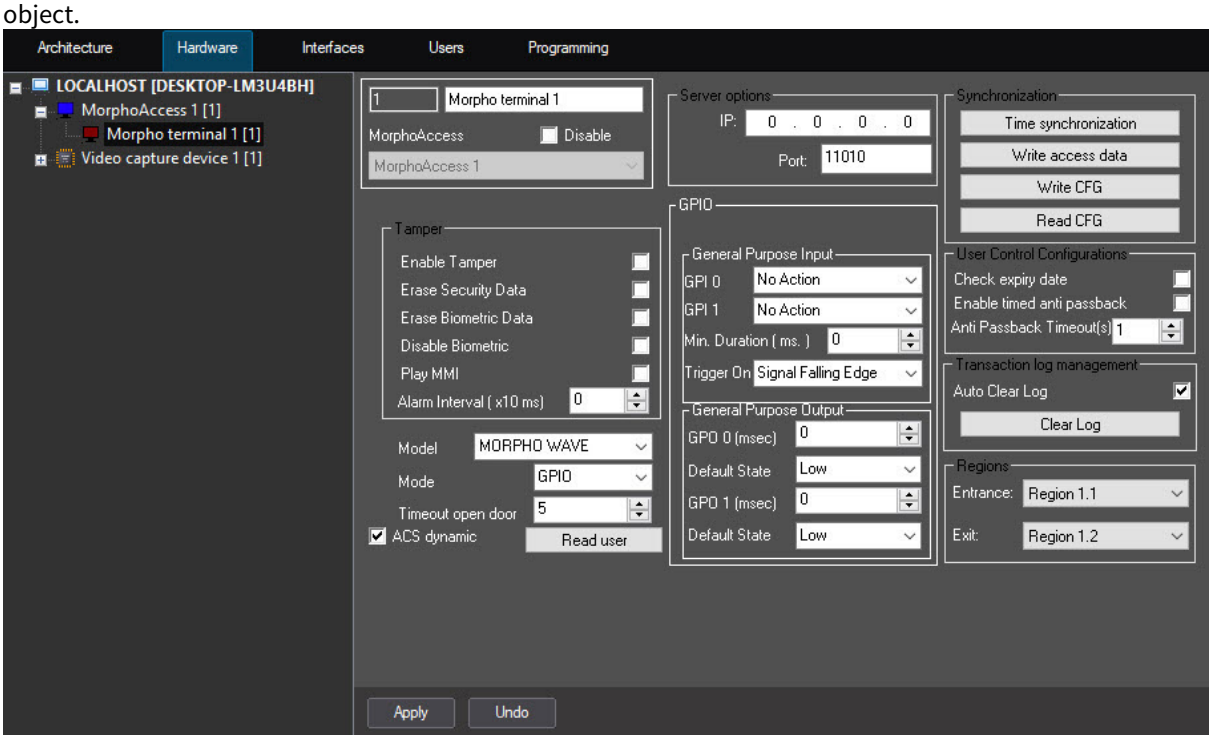
2. Click the **Apply** button.

The *MorphoAccess SIGMA Lite* integration module is activated.

3.2 Configuring the connection of the MorphoAccess SIGMA Lite terminal

To configure the connection of the *MorphoAccess SIGMA Lite* terminal, do the following:

1. Go to the settings panel of the **Morpho terminal** object that is created on the basis of the **MorphoAccess** object.



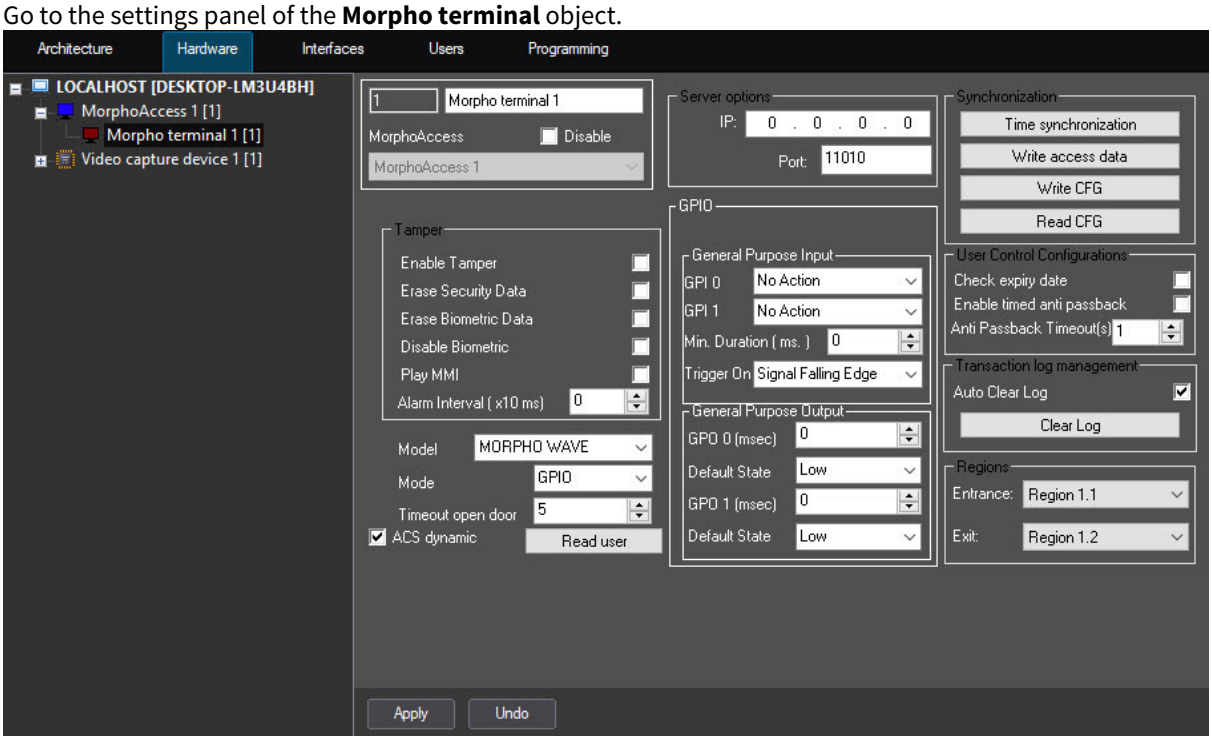
2. In the **IP** field, specify the IP address to connect to the *MorphoAccess SIGMA Lite* terminal.
3. In the **Port** field, specify the port to connect to the *MorphoAccess SIGMA Lite* terminal.
4. Click the **Apply** button to apply the changes.

Configuring the connection of the *MorphoAccess SIGMA Lite* terminal is complete.

3.3 Managing the configuration of the MorphoAccess SIGMA Lite terminal

To manage the configuration of the *MorphoAccess SIGMA Lite* terminal, do the following:

1. Go to the settings panel of the **Morpho terminal** object.



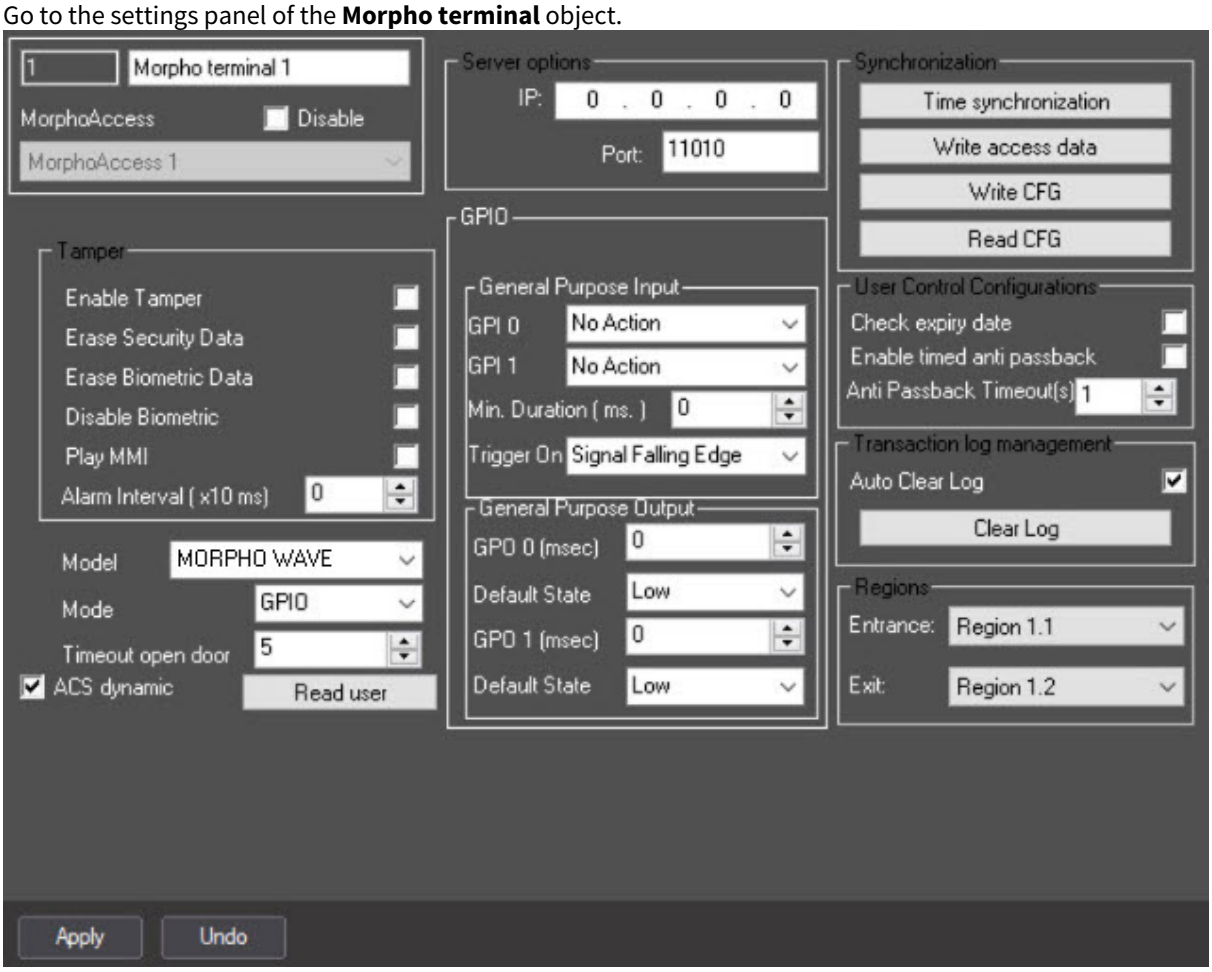
2. Click the **Time synchronization** button to synchronize the time of the *MorphoAccess SIGMA Lite* terminal and the server time.
3. Click the **Write access data** button to write the data of the *Access Manager* module to the *MorphoAccess SIGMA Lite* terminal.
4. Click the **Write CFG** button to write the current configuration to the *MorphoAccess SIGMA Lite* terminal.
5. Click the **Read CFG** button to read the current configuration from the *MorphoAccess SIGMA Lite* terminal.
6. The **ACS dynamic** checkbox is set by default. It enables the dynamic forwarding of access parameters. In this case, when the *ACFA PSIM* configuration is changed via the *Access Manager* module, the changes are automatically transferred to the *MorphoAccess SIGMA Lite* terminal. To disable the dynamic forwarding, clear the checkbox.
7. Click the **Read user** button to transfer user names, surnames, and fingerprints from the *MorphoAccess SIGMA Lite* terminal to the *Access Manager* module. During the data transfer to the *Access Manager* module, a department with the name of the *MorphoAccess SIGMA Lite* terminal is created, containing users with names and surnames as in the terminal.
8. Click the **Apply** button to save the changes.

Managing the configuration of the *MorphoAccess SIGMA Lite* terminal is complete.

3.4 User control configurations and transaction log management of the MorphoAccess SIGMA Lite terminal

To set up the user control configurations and the transaction log of the *MorphoAccess SIGMA Lite* terminal, do the following:

1. Go to the settings panel of the **Morpho terminal** object.



2. Set the **Check expiry date** checkbox to check the expiry date of the user account during authentication.
3. Set the **Enable timed anti passback** checkbox to enable the timed anti passback control. The access is allowed after the time specified in the **Anti Passback Timeout(s)** field runs out.
4. In the **Anti Passback Timeout(s)** field, specify the time in seconds after which the access is allowed if the timed anti passback is enabled on the previous step.
5. Set the **Auto Clear Log** checkbox to automatically clear the event log of the device when it is almost full.

> **Note**
>
> If necessary, you can clear the event log of the device by clicking the **Clear Log** button.

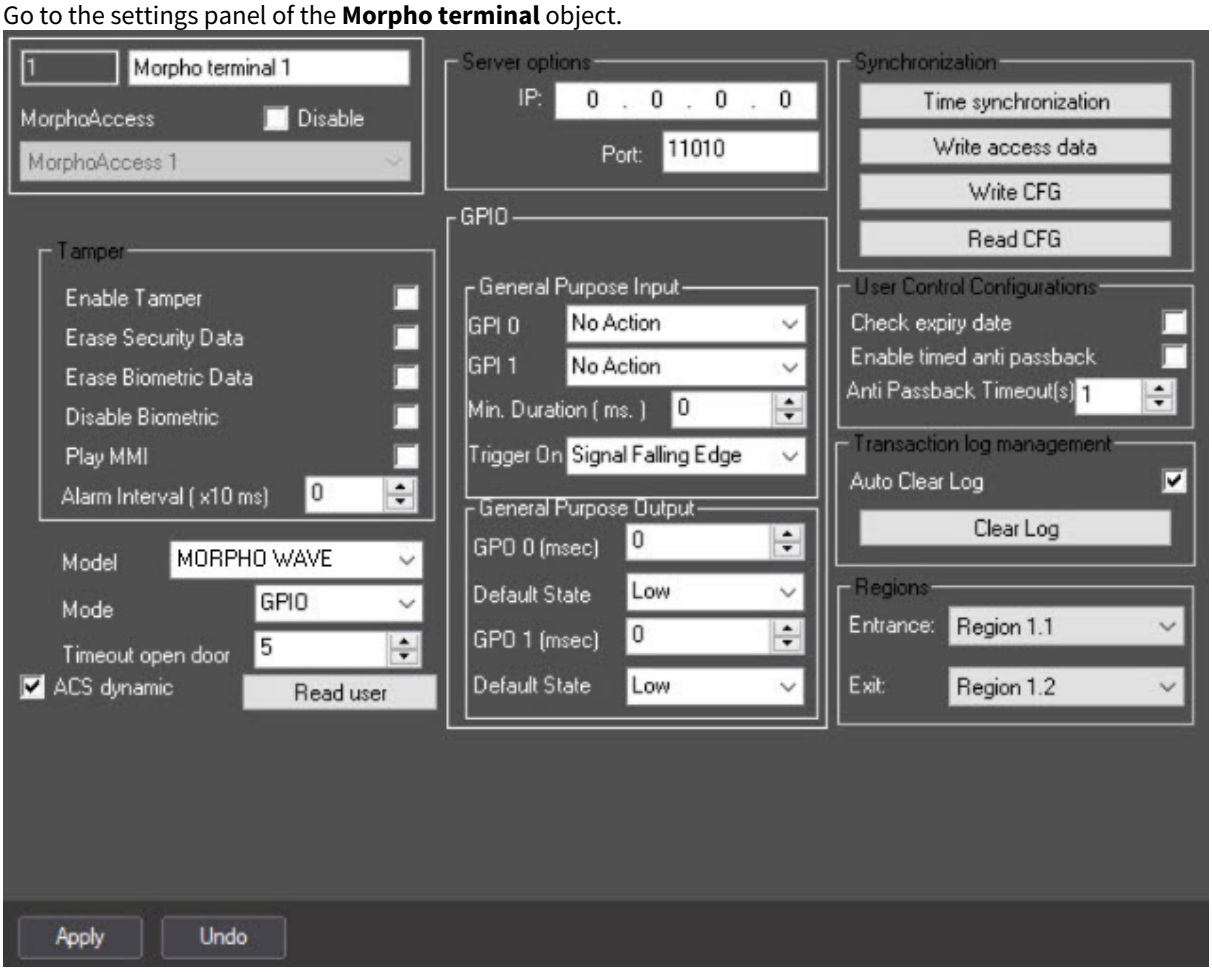
6. Click the **Apply** button to apply the changes.

Setting up the user control configurations and the transaction log of the *MorphoAccess SIGMA Lite* terminal is complete.

3.5 Selecting the operation mode of the MorphoAccess SIGMA Lite terminal

To select the operation mode of the *MorphoAccess SIGMA Lite* terminal, do the following:

1. Go to the settings panel of the **Morpho terminal** object.



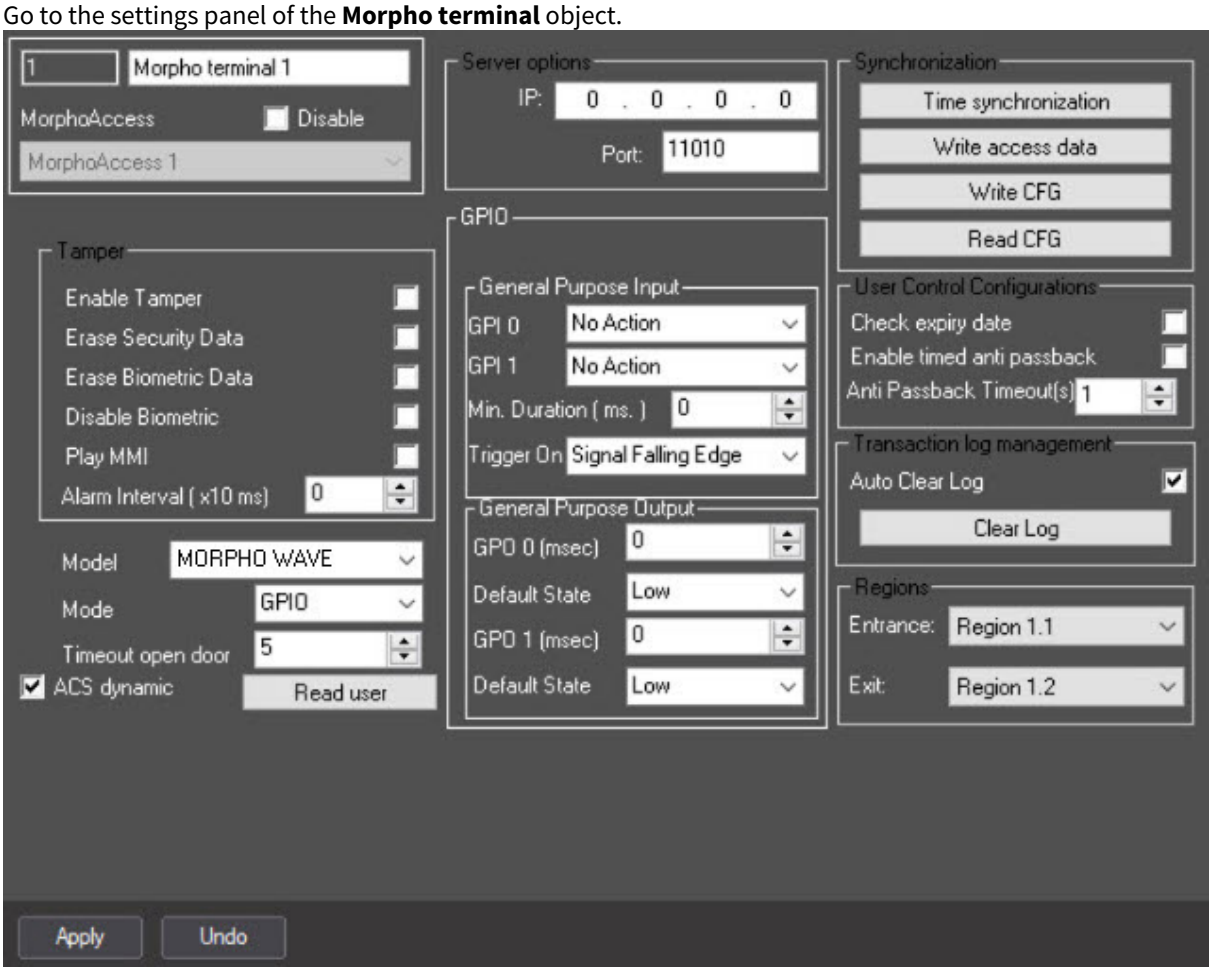
2. In the **Mode** drop-down list, select the operation mode of the terminal:
   - **GPIO** is a general purpose input/output (for details about configuring this operation mode, see Configuring the GPIO operation mode of the MorphoAccess SIGMA Lite terminal).
   - **SDAC** is a single door access control (for details about configuring this operation mode, see Configuring the MorphoAccess SIGMA Lite controller in SDAC mode).
3. In the **Timeout open door** field, enter the time in seconds during which the door is opened after the user authentication. The default value is **5**.
4. Click the **Apply** button to apply the changes.

Selecting the operation mode of the *MorphoAccess SIGMA Lite* terminal is complete.

3.5.1 Configuring the GPIO operation mode of the MorphoAccess SIGMA Lite terminal

To configure the **GPIO** operation mode (general purpose input/output) of the *MorphoAccess SIGMA Lite* terminal, do the following:

1. Go to the settings panel of the **Morpho terminal** object.



2. From the **GPI 0** and **GPI 1** drop-down lists, select the actions required for the zero and the first general purpose input, respectively, in case an event specified in the **Trigger On** field occurs:
    a. **No Action**—no action is required.
    b. **Delete Template(s)**—delete all biometric templates.
    c. **Reboot Device**—reboot the terminal.
    d. **Alarm**—activate a sound alarm that lasts five seconds.
3. In the **Min. Duration (ms.)** field, enter the time in milliseconds after which the actions, specified in the **GPI 0** and **GPI 1** drop-down lists, are activated if the relay state doesn't change after the corresponding signal is given.
4. From the **Trigger On** drop-down list, select the event that enables the actions specified in the **GPI 0** and **GPI 1** drop-down lists:
    a. **Signal Falling Edge**—when the relay switches from the enabled state to the disabled one.
    b. **Signal Rising Edge**—when the relay switches from the disabled state to the enabled one.
5. In the **GPO 0 (msec)** field, enter the time in milliseconds after which the zero general purpose output is switched to the default state.
6. From the **Default State** drop-down list, select the default state of the zero output:
    a. **Low**—the output relay is disabled. When access is allowed, the relay state is switched to **High** (the enabled state).
    b. **High**—the output relay is enabled. When access is allowed, the relay state is switched to **Low** (the disabled state).
7. In the **GPO 1 (msec)** field, enter the time in milliseconds after which the first general purpose output is switched to the default state.
8. From the **Default State** drop-down list, select the default state of the first output:

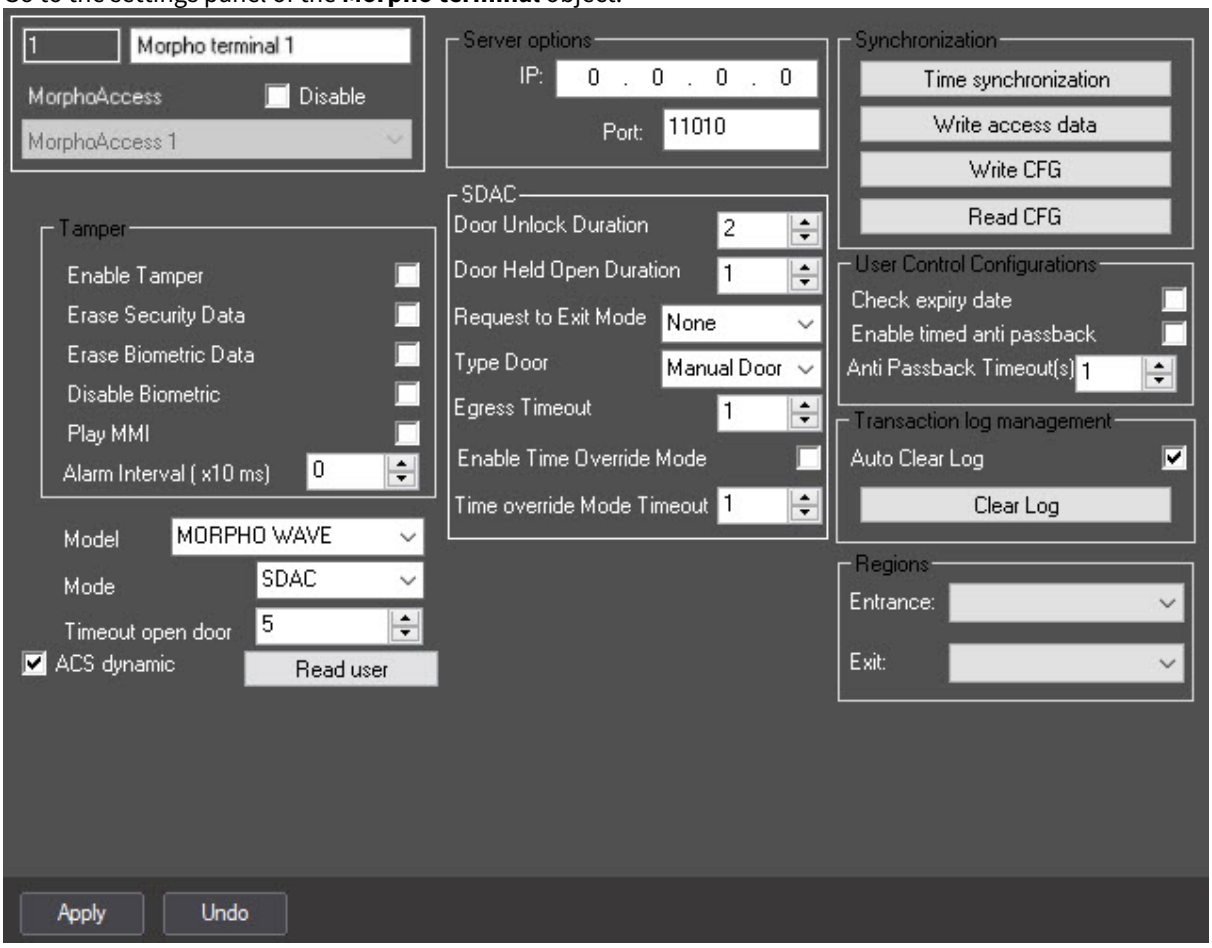
   a. **Low**—the output relay is disabled. When access is allowed, the relay state is switched to **High** (the enabled state).
   b. **High**—the output relay is enabled. When access is allowed, the relay state is switched to **Low** (the disabled state).
9. Click the **Apply** button to apply the changes.

Configuring the **GPIO** operation mode (general purpose input/output) of the *MorphoAccess SIGMA Lite* terminal is complete.

3.5.2 Configuring the SDAC operation mode of the MorphoAccess SIGMA Lite terminal

To configure the **SDAC** operation mode (single door access control) of the *MorphoAccess SIGMA Lite* terminal, do the following:

1. Go to the settings panel of the **Morpho terminal** object.



2. In the **Door Unlock Duration** field, enter the time in seconds during which the door is unlocked.
3. In the **Door Held Open Duration** field, enter the time in seconds during which the door must be closed. Otherwise, the **Hold Door** event is generated.
4. From the **Request to Exit Mode** drop-down list, select the exit mode:
   a. **None**—exit mode isn't specified.
   b. **Push Button**—exit by pushing a button.
   c. **<Reserved>**—reserved exit mode.
5. From the **Type Door** drop-down list, select the door open type:

a. **Manual Door Open**—door is opened manually.
b. **Electric Door Open**—door is opened automatically (electrically).

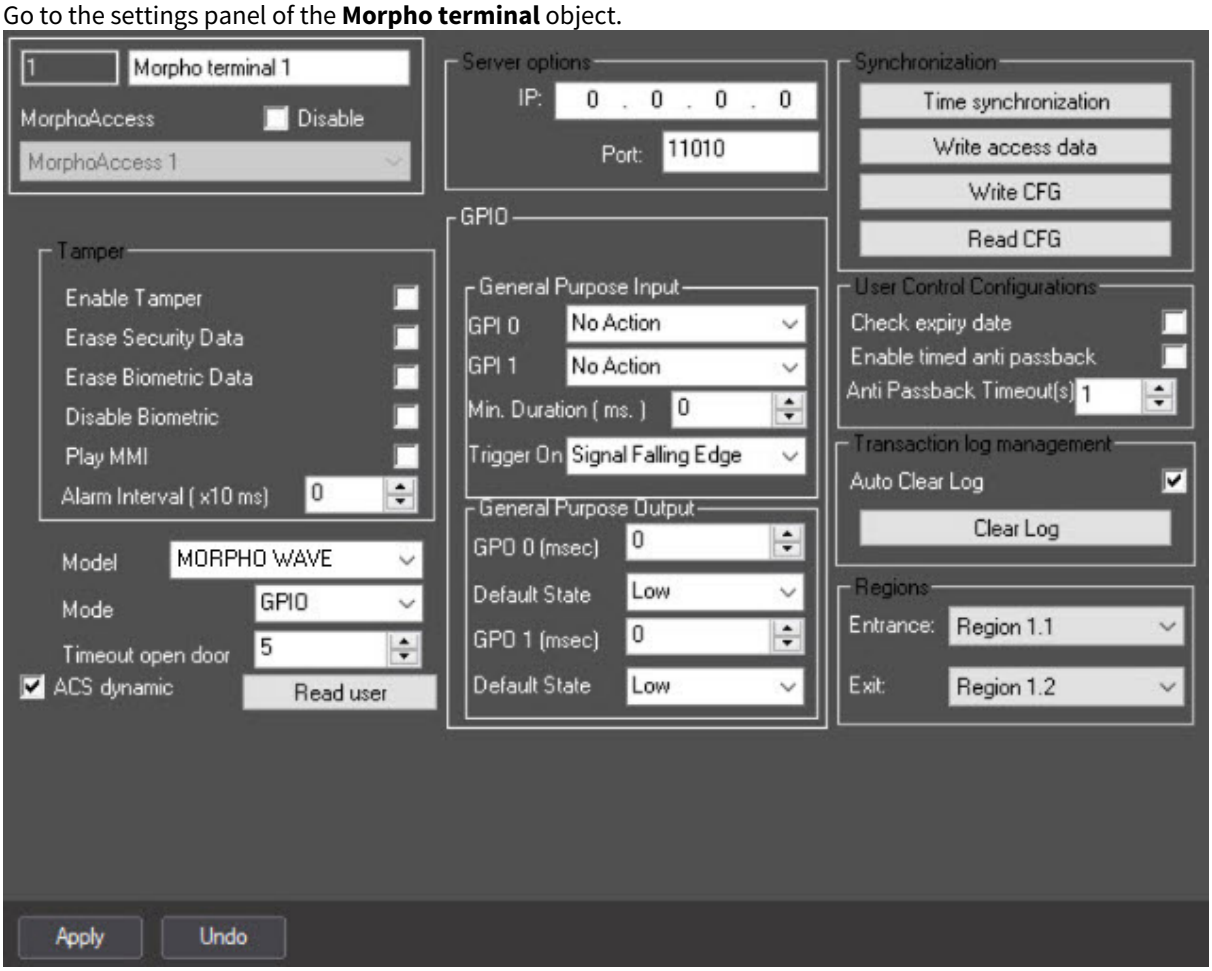
6. In the **Egress Timeout** field, enter the time in seconds in the range from 1 to 300 during which the door remains open if the **Push Button** exit mode and **Manual Door Open** door open type are selected.
7. Set the **Enable Time Override Mode** checkbox to enable the time override mode. This mode allows opening the door to a previously authorized user without authentication within the time specified in the **Time override Mode Timeout** field. By default, the checkbox is cleared.
8. In the **Time override Mode Timeout** field, enter the time in seconds during which a previously authorized user can open the door without authentication.
9. Click the **Apply** button to apply the changes.

Configuring the **SDAC** operation mode (single door access control) of the *MorphoAccess SIGMA Lite* terminal is complete.

3.6 Configuring regions of the MorphoAccess SIGMA Lite terminal

To configure the regions of the *MorphoAccess SIGMA Lite* terminal, do the following:

1. Go to the settings panel of the **Morpho terminal** object.



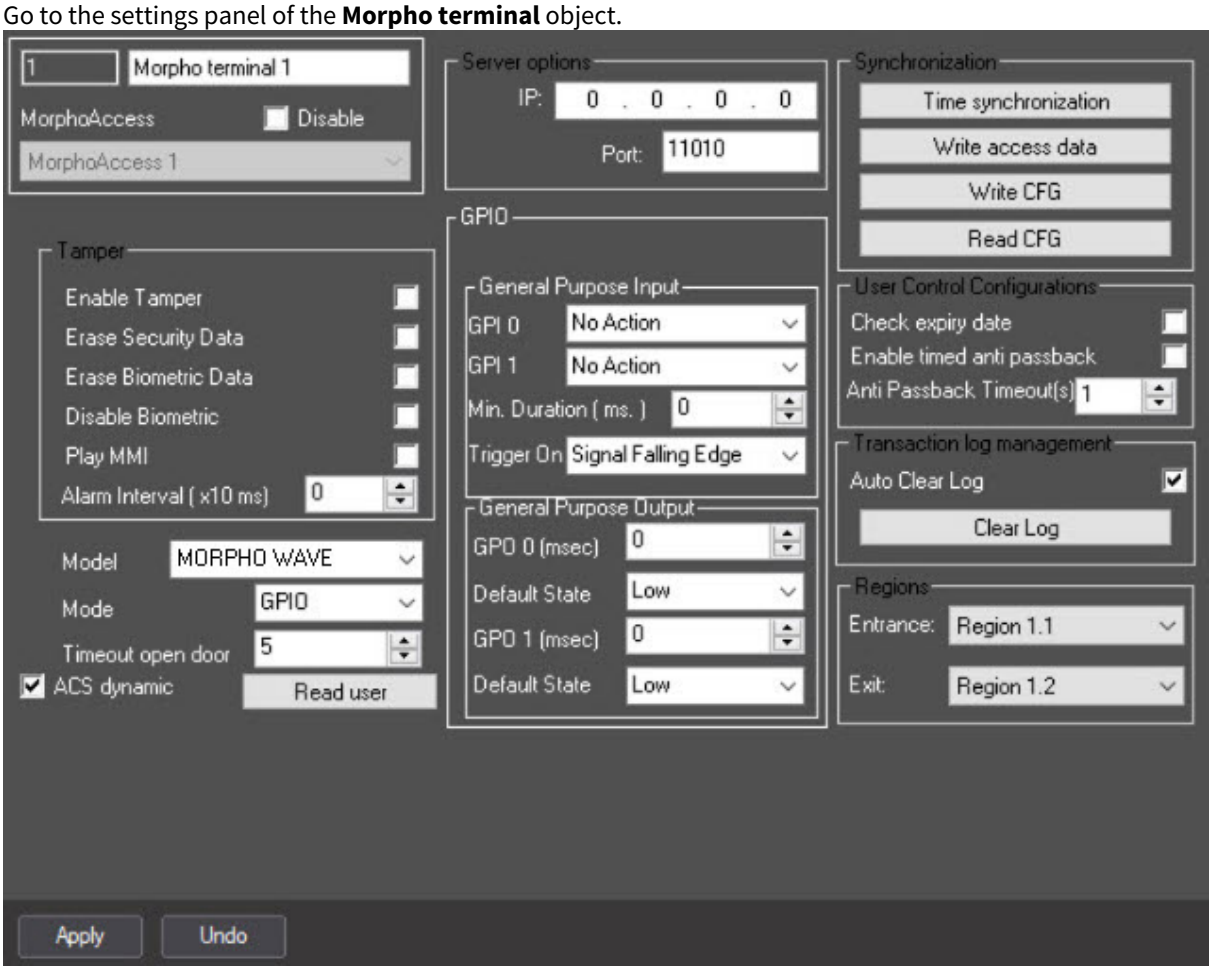
2. From the **Entrance** and **Exit** drop-down lists, select the entrance and exit regions, respectively.
3. Click the **Apply** button to apply the changes.

Configuring the regions of the *MorphoAccess SIGMA Lite* terminal is complete.

3.7 Configuring the tamper protection of the MorphoAccess SIGMA Lite terminal

To configure the tamper protection (unauthorized access) of the *Morphoses SIGMA Lite* terminal, do the following:

1. Go to the settings panel of the **Morpho terminal** object.



2. Set the **Enable Tamper** checkbox to enable the tamper protection. If it is enabled, then the alarm is generated and the parameters specified below are activated in case of physical intervention in the terminal housing.
3. Set the **Erase Security Data** checkbox to delete all user keys stored in all proximity cards and reset them to default values in case of tampering. By default, the checkbox is cleared.
4. Set the **Erase Biometric Data** checkbox to delete all user fingerprints and reset them to default values in case of tampering. By default, the checkbox is cleared.
5. Set the **Disable Biometric** checkbox to disable the biometric user authentication in case of tampering. By default, the checkbox is cleared.
6. Set the **Play MMI** checkbox to activate the sound alarm in case of tampering. By default, the checkbox is cleared.
7. In the **Alarm Interval (x10 ms)** field, enter the time interval in milliseconds for sending an alarm event about an unauthorized access. The default value is **0**.
8. Click the **Apply** button to apply the changes.

Configuring the tamper protection of the *MorphoAccess SIGMA Lite* terminal is complete.

4 Operating the MorphoAccess SIGMA Lite integration module

4.1 General information on operating the MorphoAccess SIGMA Lite integration module

The following interface objects are used to operate the *MorphoAccess SIGMA Lite* integration module:

1. **Map**.
2. **Event Viewer**.
3. **Access Manager**.

For information on configuring these interface objects, see Axxon PSIM Administrator's Guide and Guide for configuring and working with the Access Manager module.

For information on using these interface objects, see Axxon PSIM Operator's Guide.

4.2 Managing the MorphoAccess SIGMA Lite terminal

You can manage the *MorphoAccess SIGMA Lite* terminal in the **Map** window using the menu of the corresponding object:

A description of the commands of the terminal menu is given in the table:

Menu command	Function performed
Normal mode	Standby mode
Open door long	Door is opened for some time
Edit alarm	Alarm is accepted
Open door	Door is opened

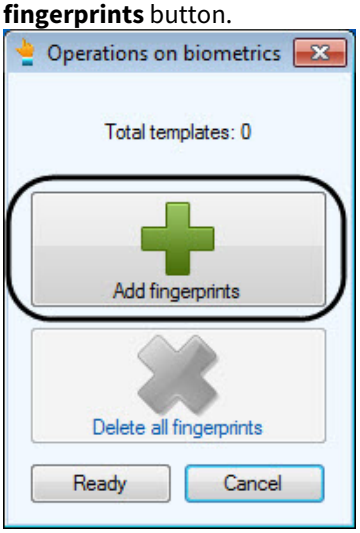
The terminal can have the following states:

	Connected
	Disconnected
	Door is tampered
	Door is held
	Door is opened

4.3 Adding the MorphoAccess SIGMA Lite fingerprints

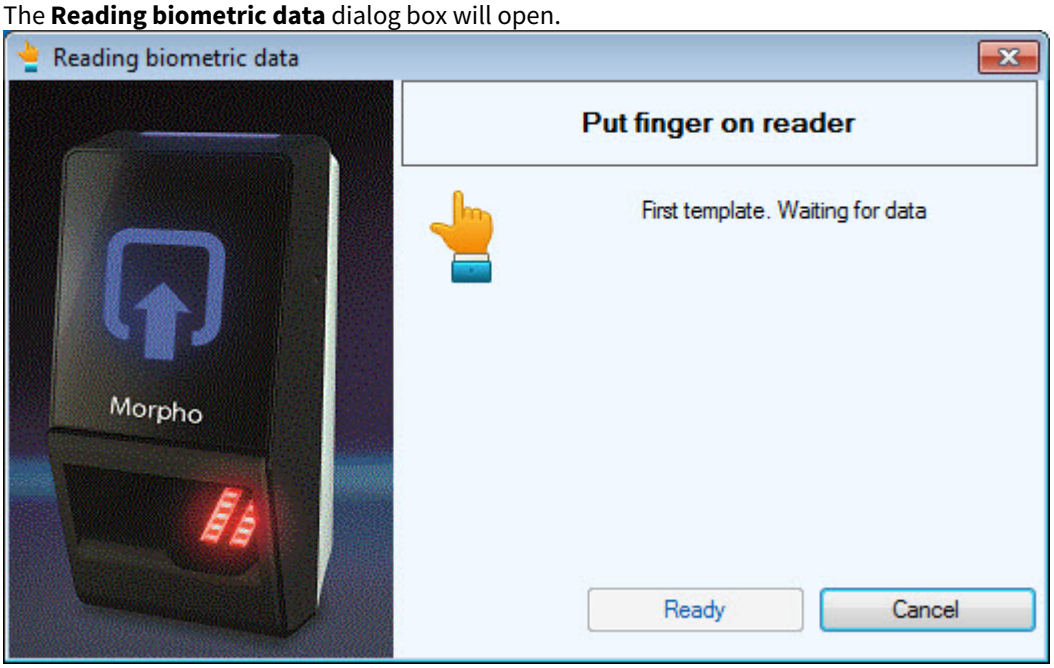
To add *MorphoAccess SIGMA Lite* fingerprints in the *Access Manager* module, do the following:

1. Go to adding biometric data in the *Access Manager* window (see Adding biometric parameters).
2. Select the **(MorphoLite) MorphoAccess SIGMA Lite** extension that corresponds to the *MorphoAccess SIGMA Lite* terminal.
3. The **Operations on biometrics** dialog box will open. To add a new fingerprint, click the **Add fingerprints** button.

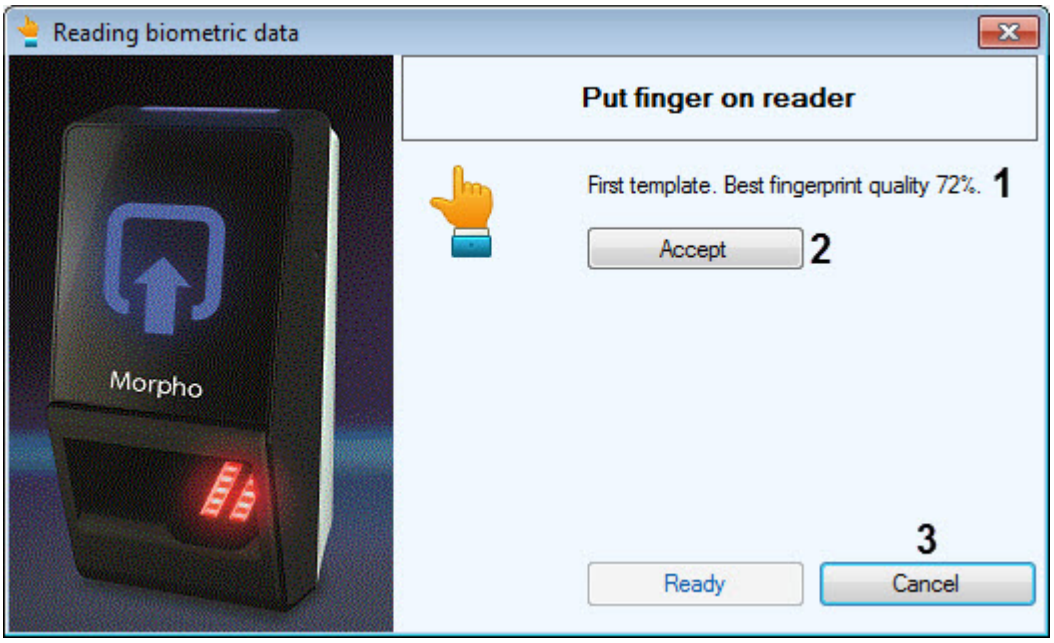


> **Note**
>
> To delete all fingerprint templates, click the **Delete all fingerprints** button. This button is active if there are any previously added fingerprint templates.

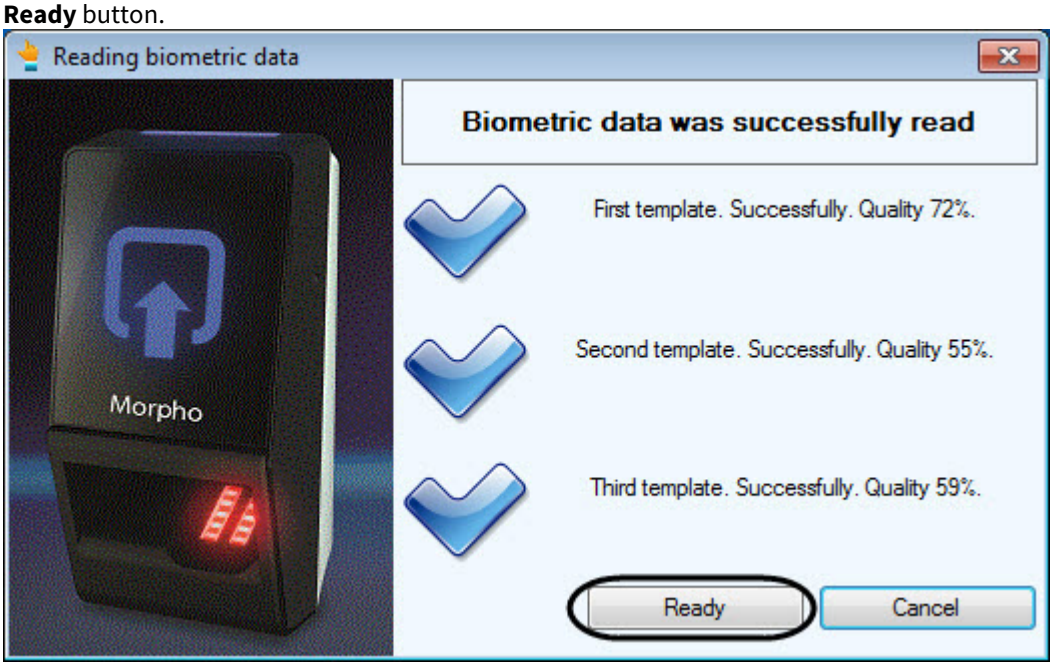
4. The **Reading biometric data** dialog box will open.



5. Place your finger on the controller three times and wait for the fingerprint scan to complete. The quality of the first fingerprint will be displayed in the area (**1**). Click **Accept** (**2**) to continue scanning two more fingers.



6. In the same way, scan two more different fingers. To complete the fingerprint template creation, click the **Ready** button.



Creating the *MorphoAccess SIGMA Lite* fingerprint template is complete.