STX Integration Module Settings Guide

ACFA PSIM 1.1

Last update 05/03/2024

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1 Introduction into STX Module Settings Guide

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1.1 Purpose of the document

This *STX Module Settings Guide* is a reference manual designed for *STX* Module configuration technicians.

This Guide presents the following materials:

1. general information about the *STX* integration module;
2. configuration of the *STX* integration module;
3. working with the *STX* integration module.

1.2 General information about the STX integration module

The *STX* module is a component of an ACS built on the basis of *ACFA PSIM*. It was designed to interact between the *STX* hardware and *ACFA PSIM*.

Note

Detailed information about the *STX* ACS is presented in the official documentation for this system (manufactured by GS Software).

Before configuration the *STX* ACS integration module, do the following:

1. install the *STX* hardware on the protected territory (for details, see the *STX* guide);
2. connect the *STX* ACS hardware to the *Axxon PSIM* Server (for details, see the *STX* guide).

2 Supported hardware and licensing of the STX integration module

Manufacturer	GS Software ul. Półłanki 80 lok 402 30-740 Kraków, Poland Tel.: (+48) 12 444 69 36 www.gs-software.pl
Integration type	Low-level protocol
Equipment connection	RS-232, RS-485: Ethernet

Supported equipment

Equipment	Function
The whole STX controller product line	Controller

Licensing

Per 1 controller.

3 Configuration of the STX integration module

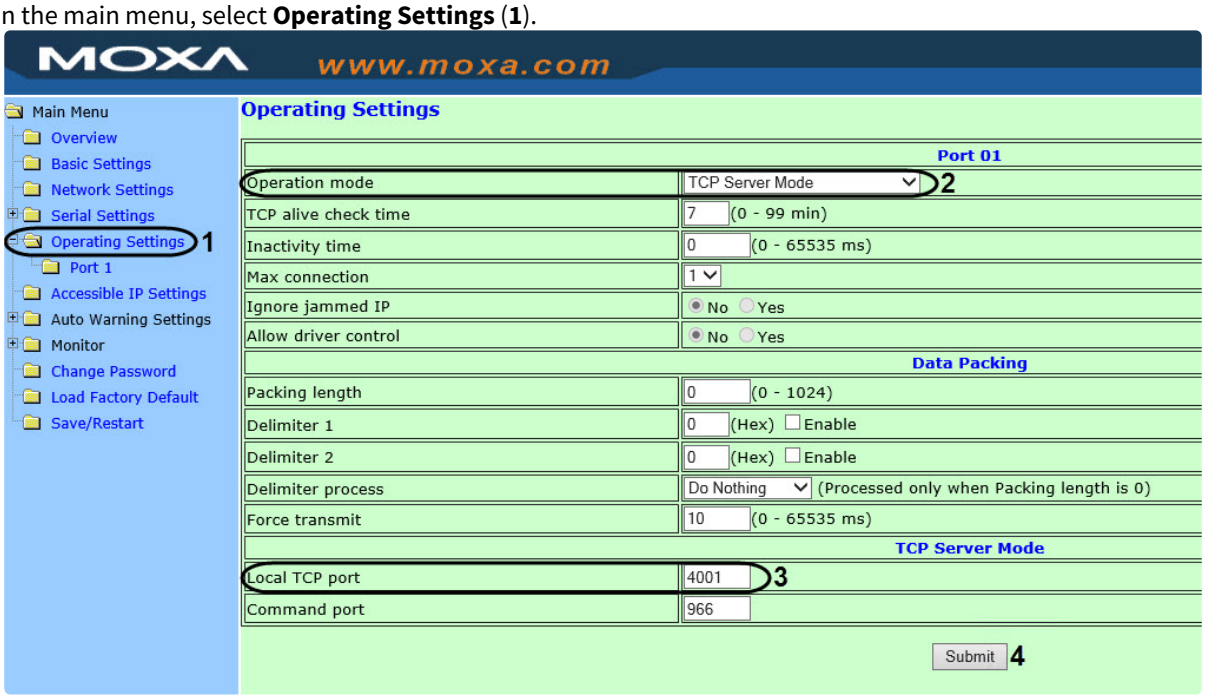
3.1 Pre-configuration of the STX ACS

> **Attention!**
>
> Pre-configuration of the *STX* ACS is required only when using the STX-1000 controller. When using other models of *STX* controllers, for example, STX-2200, no pre-configuration is required, as this model works via Ethernet and connects to *ACFA PSIM* directly.

The *STX-1000* ACS operates with *ACFA PSIM* via a serial interface converter in Ethernet Moxa NPort.

The *STX-1000* ACS is pre-configured as follows:

1. Connect the *STX-1000* controller to the Moxa NPort converter, and connect the converter to *ACFA PSIM*.
2. Go to the web interface of the Moxa NPort Converter.
3. In the main menu, select **Operating Settings** (**1**).



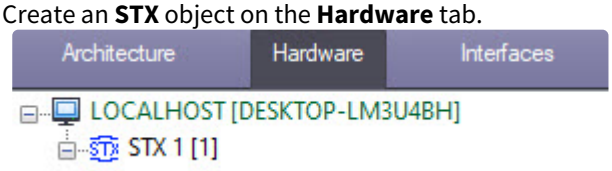
4. In the **Operation mode** drop-down list (**2**), select **TCP Server mode**.
5. The **Local TCP port** field (**3**) indicates the port that will need to be specified for connecting the *STX-1000* ACS (see Configuring the STX ACS connection).
6. Click the **Submit** button (**4**) to save the changes.

The *STX-1000* ACS is now pre-configured.

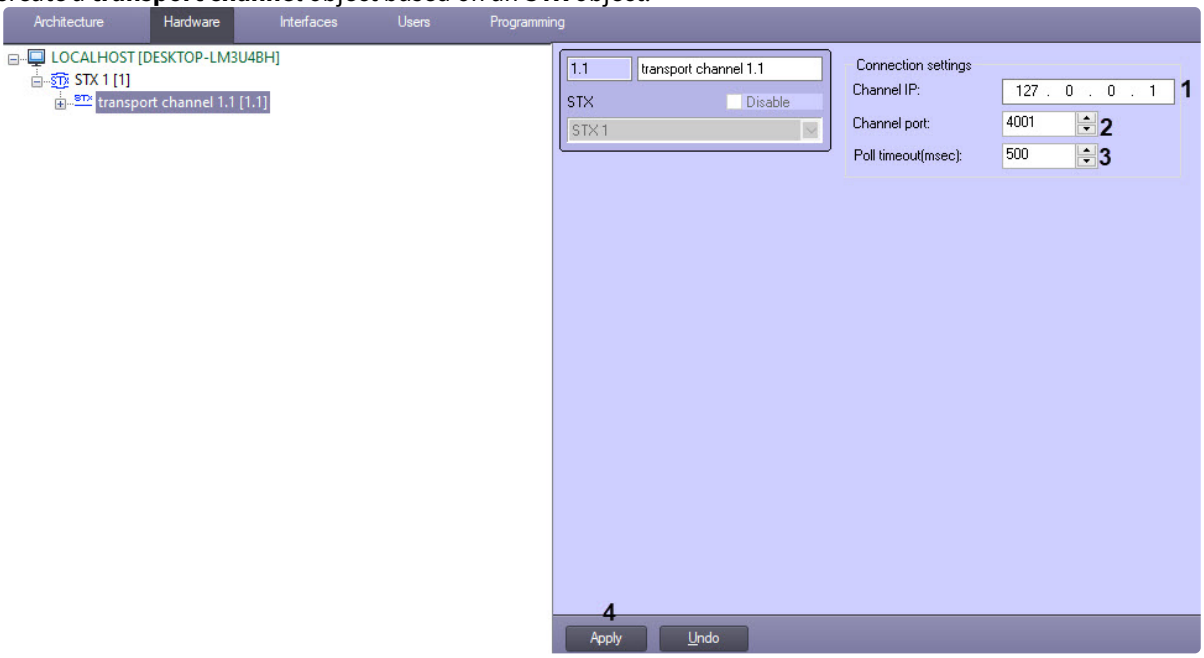
3.2 Configuring the STX ACS connection

The *STX* ACS connection is configured as follows:

1. Create an **STX** object on the **Hardware** tab.



2. Create a **transport channel** object based on an **STX** object.



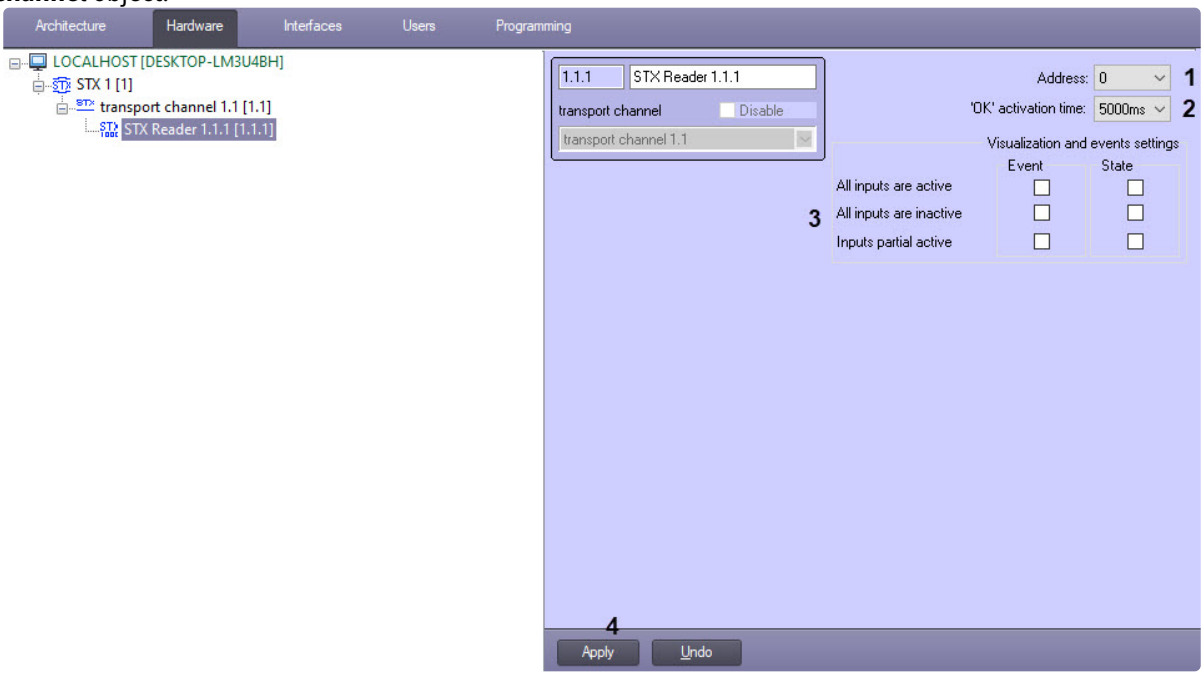
3. On the **transport channel** object settings panel, in the **Channel IP** (**1**) and **Channel port** (**2**) fields, specify the IP address and port of the Moxa server (see Pre-configuration of the STX ACS).
4. In the **Poll timeout(msec)** field (**3**), enter the time of the controller polling period in milliseconds. The controller polling period cannot be less than **500** ms.
5. Click the **Apply** button (**4**).

The *STX* ACS connection is now configured.

3.3 Configuring the STX controller

The *STX* controller is configured as follows:

1. Go to the settings panel of the **STX Reader** object, which is created on the basis of the **transport channel** object.



2. In the **Address** field (**1**), enter the physical address of the controller.
3. From the **'OK' activation time** drop-down list (**2**), select the time in milliseconds for which the "OK" LED on the device will be turned on when the corresponding command is sent from the Map. Also, the "OK" LED may blink when **Blink** is selected.
4. Configure the events receiving and states changing (**3**):

Inputs activity	Event	State
All inputs are active	If the checkbox is set, the event will be received only if all inputs are active	If the checkbox is set and all inputs are active, then the state of these inputs will change on the Map
All inputs are inactive	If the checkbox is set, the event will be received only if all inputs are inactive	If the checkbox is set and all inputs are inactive, then the state of these inputs will change on the Map
Inputs partial active	If the checkbox is set, the event will be received even if only some of the inputs are active	If the checkbox is set, the state of all active inputs will change on the Map

> **Note**
>
> Only input objects created in the tree are taken into account. For example, if only 2 out of 4 inputs are created, then the events and states will be monitored only for these 2 inputs.

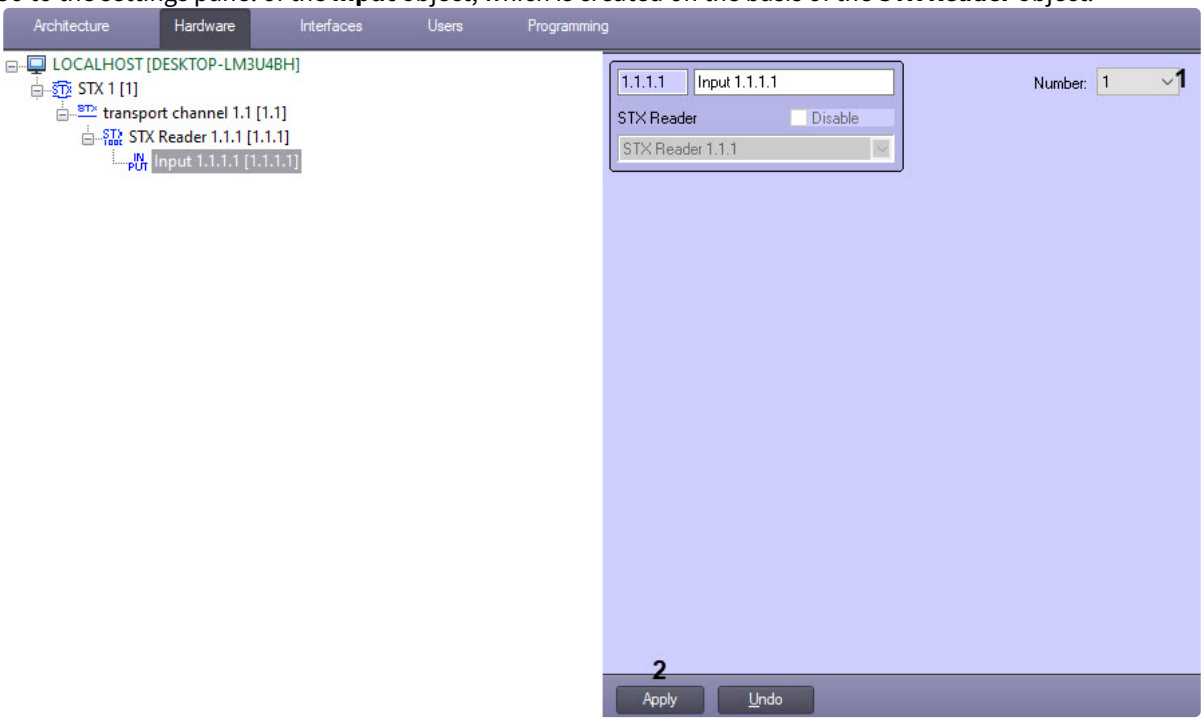
5. Click the **Apply** button (**4**).

The *STX* controller is now configured.

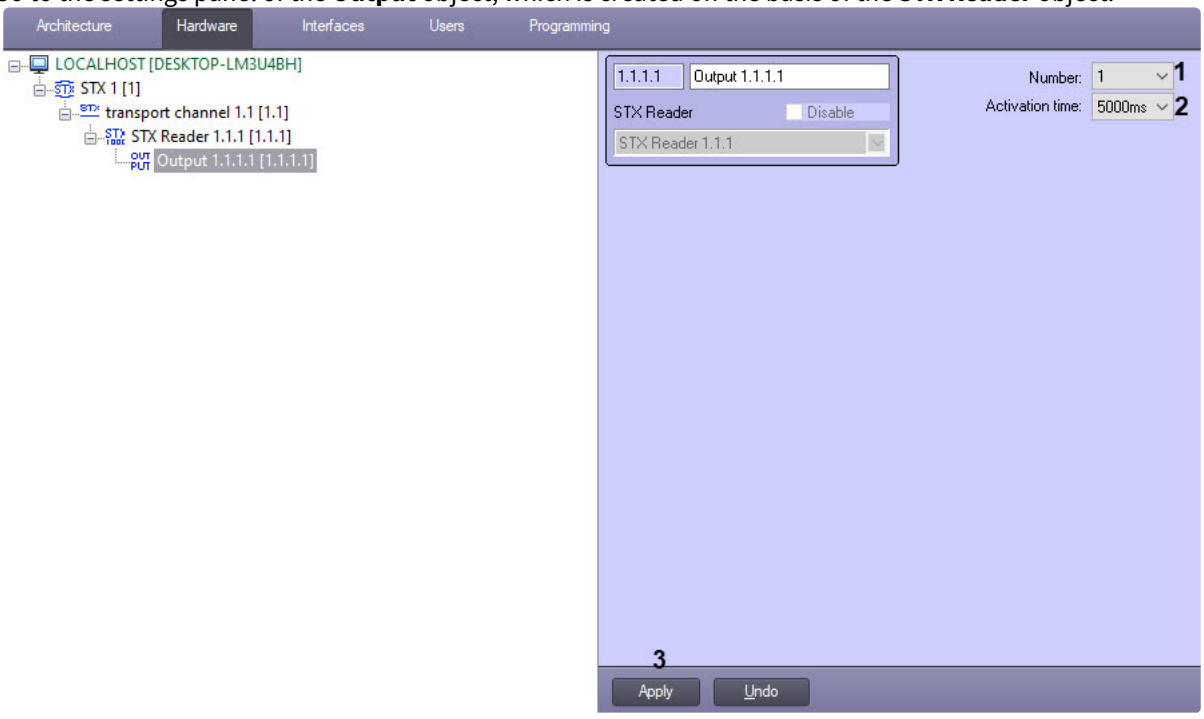
3.4 Configuring the STX controller inputs and outputs

The *STX* controller inputs and outputs are configured as follows:

1. Go to the settings panel of the **Input** object, which is created on the basis of the **STX Reader** object.



2. From the **Number** drop-down list (**1**), select the required input address.
3. Click the **Apply** button (**2**).
4. Go to the settings panel of the **Output** object, which is created on the basis of the **STX Reader** object.



5. From the **Number** drop-down list (**1**), select the required output address.

6. From the **Activation time** drop-down list (**2**) select the time in milliseconds for which the output will be activated when the corresponding command is sent from the Map. The default value is 5000 ms. The output can also blink when **Blink** is selected.
7. Click the **Apply** button (**3**).

The *STX* controller inputs and outputs are now configured.

4 Working with the STX integration module

4.1 General information about working with the STX Module

The following interface objects are used for *STX* integration module operation:

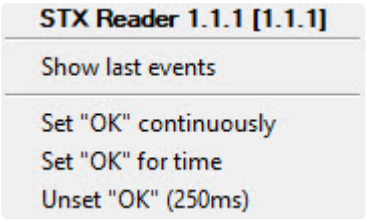
1. **Map**.
2. **Event Log**.

For the detailed description of configuring these interface objects, refer to the Axxon PSIM Administrator's Guide.

For the detailed description of using these interface objects, refer to the Axxon PSIM Operator's Guide.

4.2 Managing the STX controller

The *STX* controller is managed in the **Map** interactive window using the **STX Reader** object functional menu.



The *STX* object functional menu commands description is given in the table.

Menu command	Function performed
Set "OK" continuously	Turns on the "OK" LED permanently
Set "OK" for time	Turns on the "OK" LED for the time specified on the *STX* controller settings panel (see Configuring the STX controller)
Unset "OK" (250 ms)	Turns on the "OK" LED for 250 milliseconds

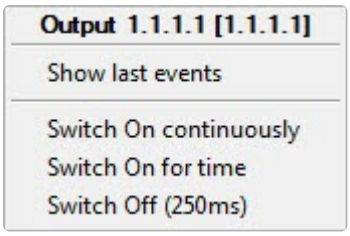
The *STX* controller object can have the following states:

	All inputs are active
	All inputs are inactive
	Controller is connected

	Controller is disconnected
	Inputs are partially active

4.3 Managing the STX controller output

The *STX* controller output is managed in the **Map** interactive window using the **Output** object functional menu.



The *STX* controller output functional menu commands description is given in the table.

Menu command	Function performed
Switch On continuously	Turns on the output permanently
Switch On for time	Turns on the output for the time specified on the output settings panel (see Configuring the STX controller inputs and outputs)
Switch Off (250 ms)	Turns on the output for 250 milliseconds

The *STX* controller output can have the following states:

	Disconnected
	Disabled
	Enabled

4.4 Managing the STX controller input

The *STX* controller input is not managed in the **Map** interactive window.

The *STX* controller input can have the following states:

	Disconnected
	Disabled
	Enabled