ForwardT Software Package

Use of SoftGPI signals

Exchange of control signals
between programs

Revision as of
August 21, 2012

User's Guide

Notice

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Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
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Table of Content

Introduction

It is possible to organize exchange of signals between some programs using the ForwardT Software Set. To exchange signals program GPI signals are used.

This document presents information on how you can control data capture in FDCapture from FDOnAir using SoftGPI signals.

General Information

1. Program GPI signals

For exchange of control signals between programs SoftGPI signals are used.

SoftGPI signals are program-generated signals, used in the same way as signals transferred over GPI (through COM port).

Programs are not able to transfer GPI signals directly to other programs. GPI signals are transferred through SoftGPI Server only.

For transferring a control signal from one program to another a pair of GPI signals (input and output) is used:

- Output GPI signal is the signal sent by the control program;
- Input GPI signal is the signal that arrives at the program being managed.

The figure below presents general scheme of interaction between FDOnAir and FDCapture.

SoftGPI signals are configured by user in the SLGPISoftConfig application, which is a part of the ForwardT Software Set.

During configuration, signals are named and paired:

- the following prefixes are added automatically to signal names entered by user:
  - SoftOut_ for output signals;
  - SoftIn_ for input signals;
- an output signal sent by the program being controlled and the corresponding input signal that arrives at the program being managed are paired.

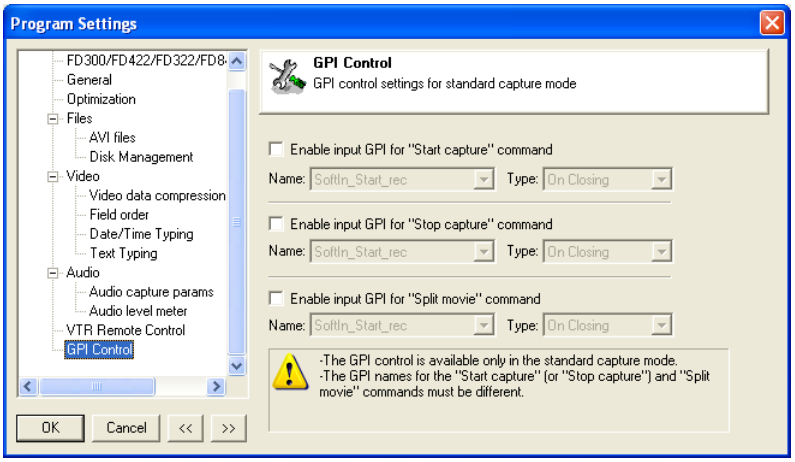
2. Use of GPI signals in FDCapture

You can control data capture in FDCapture using GPI signals. GPI signals can launch the following commands:

- start capture;

- stop capture;
- split movie.

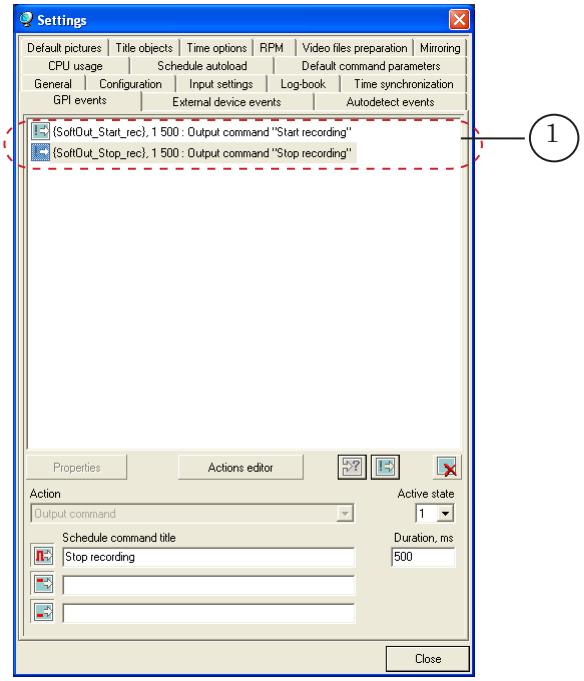
GPI control can be set in the Program Settings window in the GPI Control panel (see the setting order in this document below).



3. Sending GPI signal from FDOnAir

To send SoftGPI signal in FDOnAir, use the Send signal command. To send a particular GPI signal, configure a separate command in the program.

To configure the Send signal commands, use the GPI events tab in the Settings panel (see below for details).



The configured Send signal commands (1) look like this:

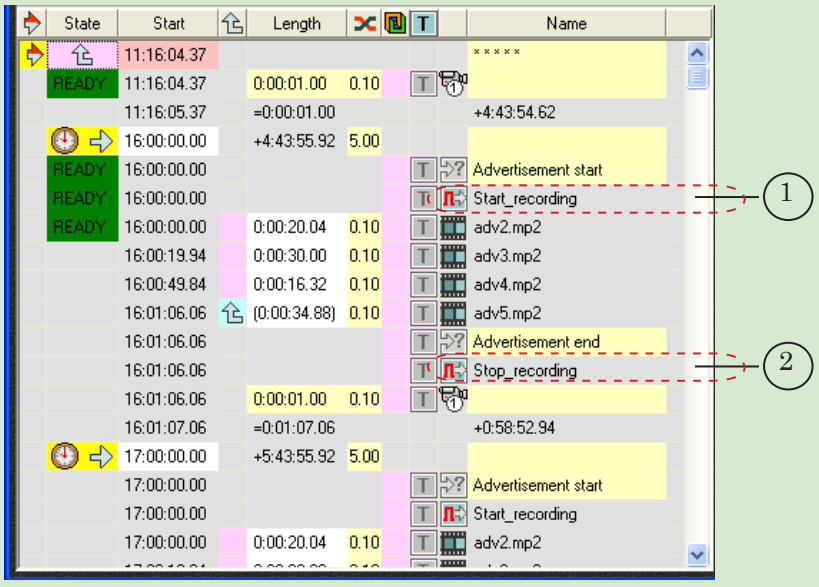
{**GPI_ID**}, **AS Du** : Output command "**Command title**"

where:

- – is an icon of the Send signal command. If the icon icon looks like this , it means that the command is configured inappropriately and will not be implemented;
- **GPI_ID** denotes the GPI signal identifier;
- **AS** denotes the Active state parameter value, i.e. a number that defines active state of external device:
  - 0 when contacts are open;
  - 1 when contacts are closed.
- **Du** denotes the Duration parameter value, i.e. a number that defines the impulse duration;
- **Command title** is an arbitrary text. The command title is displayed in the Name column when adding the Send signal command to the schedule.

To send the signal, add the Send signal command to your schedule. When the Send signal command is implemented on the schedule, the GPI signal is sent.

Example: The figure below presents an extract of a schedule with added Send signal commands intended to send impulse signals.



The command named Start_recording (1) is intended to send the GPI signal which launches the Start Capture command in FDCapture.

The command named Stop_recording (2) is intended to send the GPI signal which launches the Stop Capture command in FDCapture.

Before starting

1. General workflow

1. Configure pairs of output and input SoftGPI signals in the SLGPISoftConfig application.
2. Do the following in FDOnAir:
   1. Configure the Send signal commands to send GPI signals;
   2. Create a schedule.
3. Set GPI control in FDCapture.

2. Configuring program GPI signals in the SLGPISoftConfig application

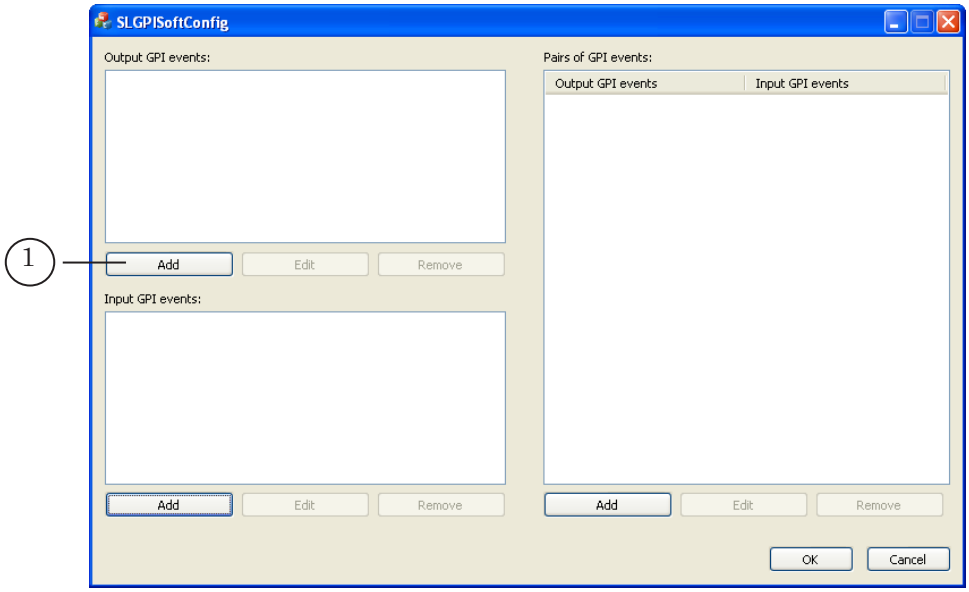
Important: We recommend closing FDOnAir before configuring SoftGPI signals. Otherwise, the added GPI signals will not be displayed in FDOnAir until the application is restarted.

Specify identifiers for SoftGPI signals and pair output and input GPI signals in the SLGPISoftConfig application.

Workflow:

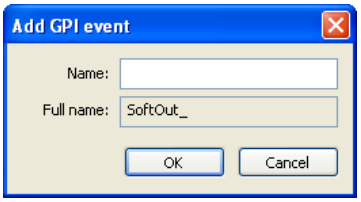
1. Launch the application by opening the following file ~\Tools\SoftGPI\SLGPISoftConfig.exe, where ~ denotes the full path to the folder where the ForwardT Software is installed.

The main window opens.

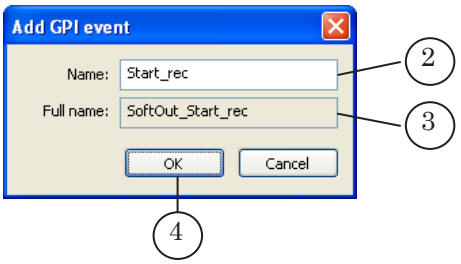


2. Add an output signal. To do this, follow the steps below:

1. Click Add (1). The Add GPI event window opens.

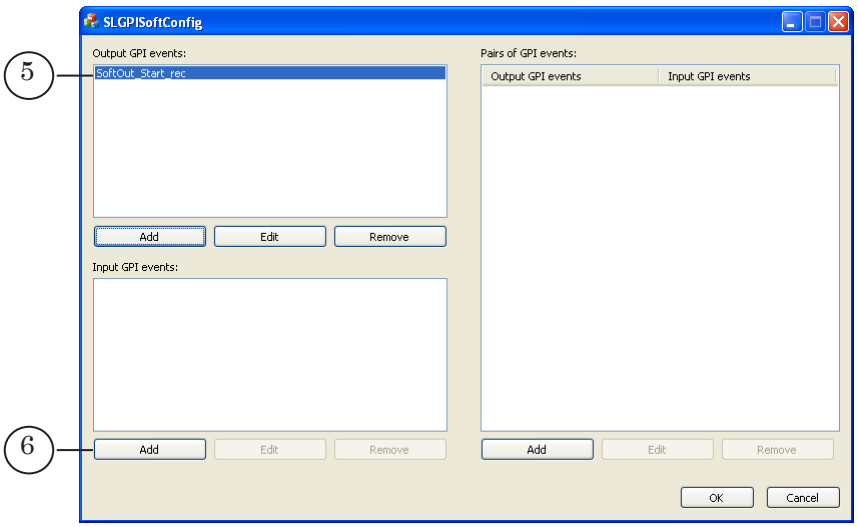


2. In the Name text box (2) enter the output signal name.



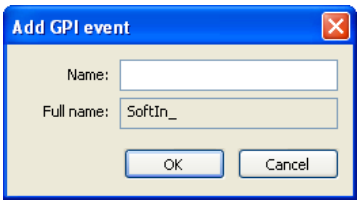
In the Full name text box (3) the signal name with the SoftOut_ prefix will be displayed automatically.

3. Click OK. The Add GPI event window closes.
In the main window in the Output GPI events field (5) the signal name is displayed.

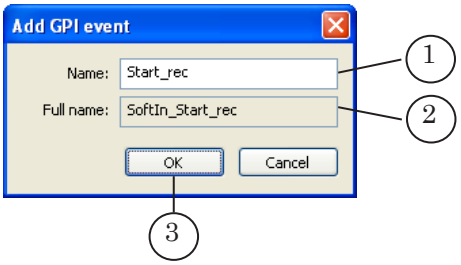


3. Add an input signal. To do this, follow the steps below:

1. Click Add (6). The Add GPI event window opens.

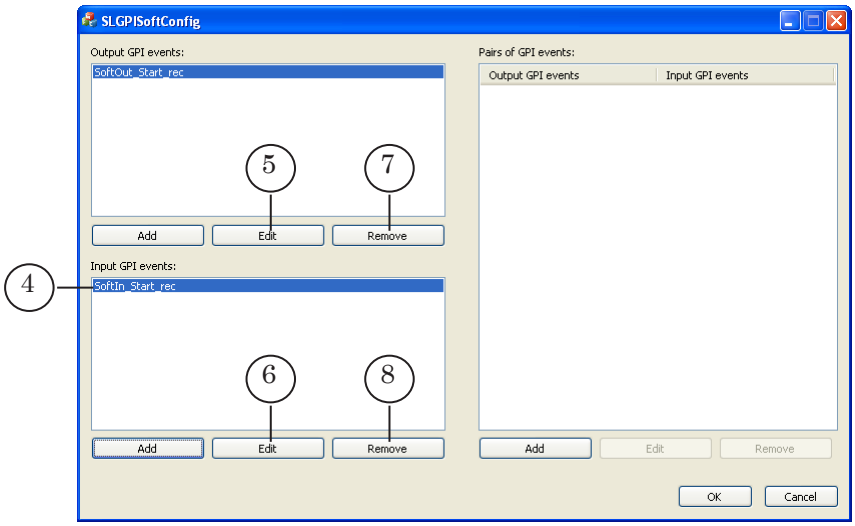


2. In the Name text box (1) enter the input signal name.



In the Full name text box (3) the signal name with the SoftIn_ prefix will be displayed automatically.

3. Click OK (3). The Add GPI event window closes. In the main window in the Input GPI events field (4) the signal name is displayed.



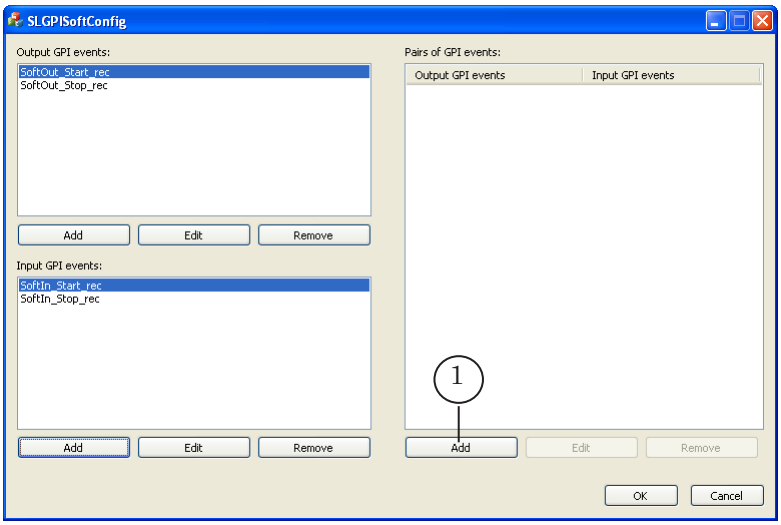
4. Add the required number of input and output signals by repeating the steps 2 and 3.

5. To rename the added signals, select in the list the one you want to rename and click Edit: (5) – to rename an output signal, (6) – to rename an input signal.

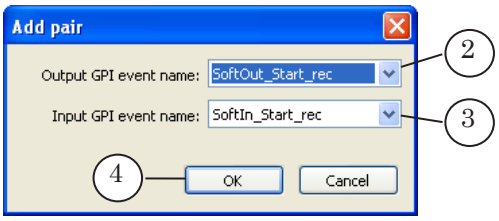
6. To remove a signal, select it in the list and click Remove: (7) – to remove an output signal, (8) – to remove an input signal;

7. Pair off the events. To do this, follow the steps below:

1. Click Add (1).

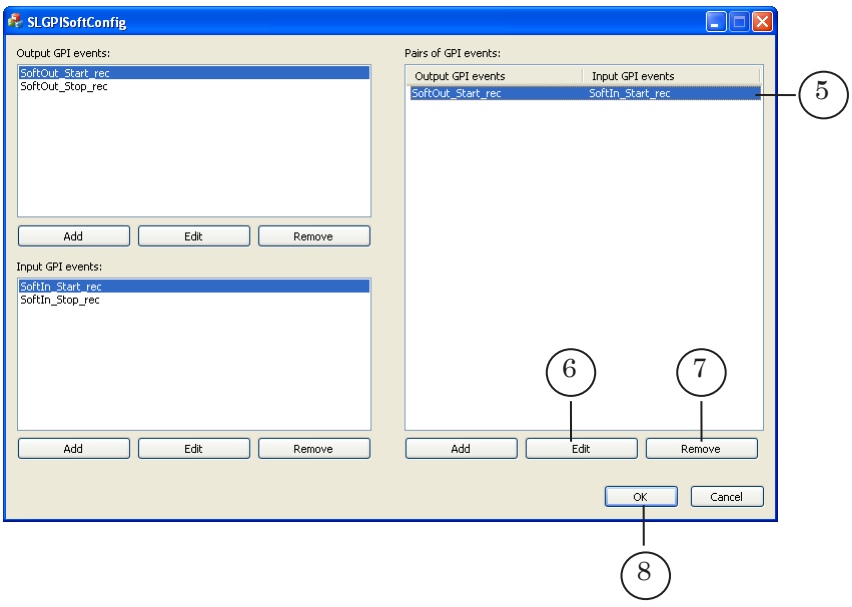


2. In the Add pair window that opens in the Output GPI event name (2) and Input GPI event name (3) lists select the names of the GPI signals you want to pair off.



3. Click OK (4). The window closes.

In the main window in the Pairs of GPI events list the added pair is displayed.



4. To edit a pair, click on it and then click Edit (6).
5. To remove a pair, click on it and then click Remove (7).

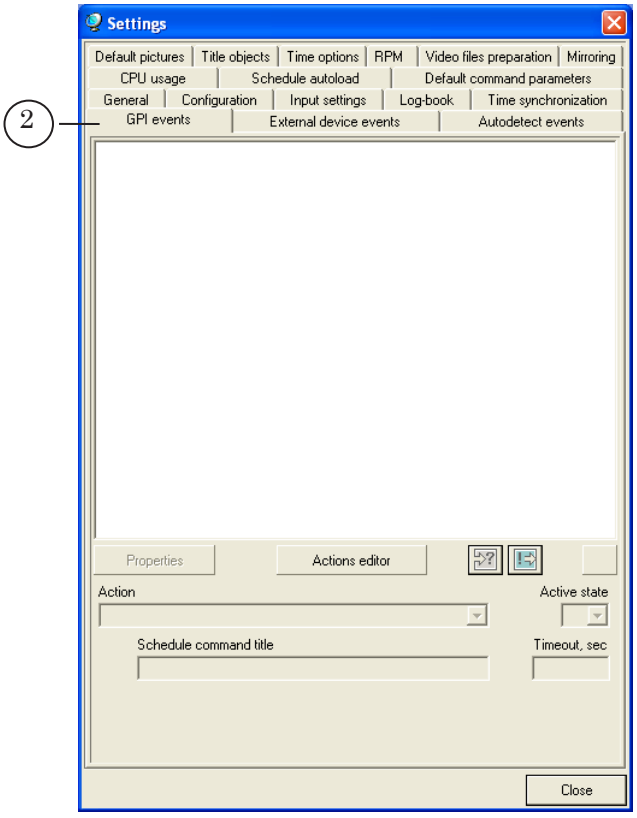
8. To close the application, click OK (8).

3. Before sending the program GPI signals in FDOnAir

3.1. Configuring the Send signal commands

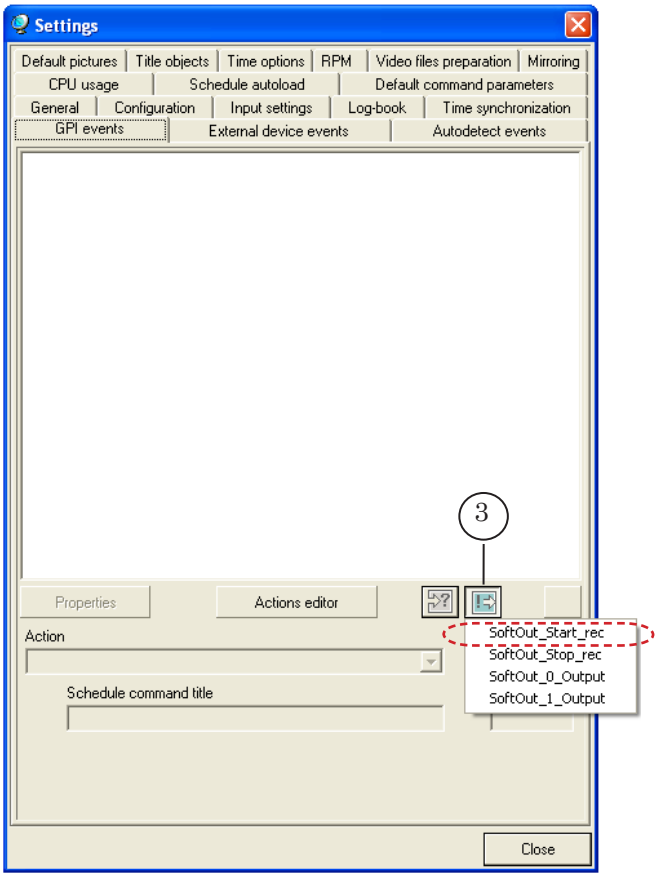
1. In the main FDOnAir window click Settings (1).

2. In the Settings window that opens open the GPI events tab (2).

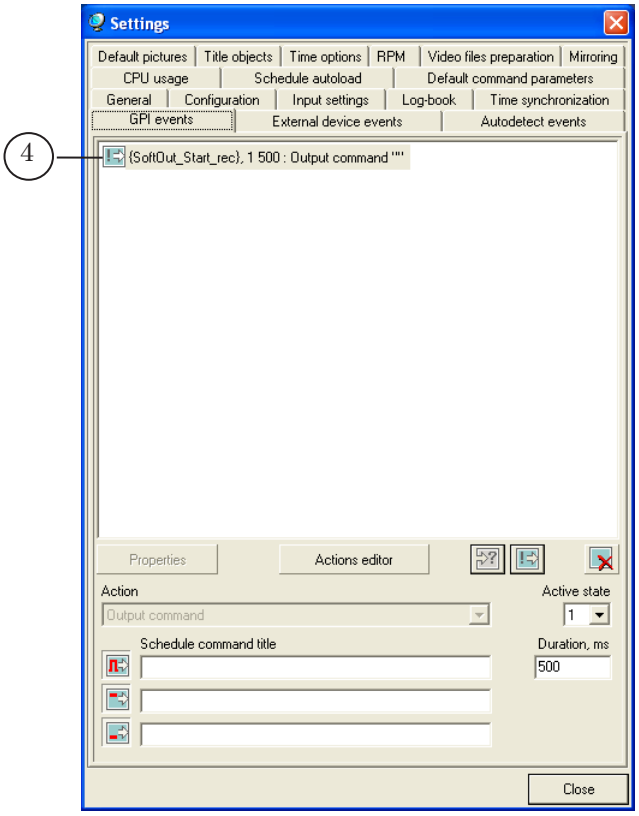


3. In the GPI events tab click on  (3). The output signals list opens.

   Select in the list the SoftGPI signal identifier by clicking on it.



4. In the list the Send signal command (4) appears.



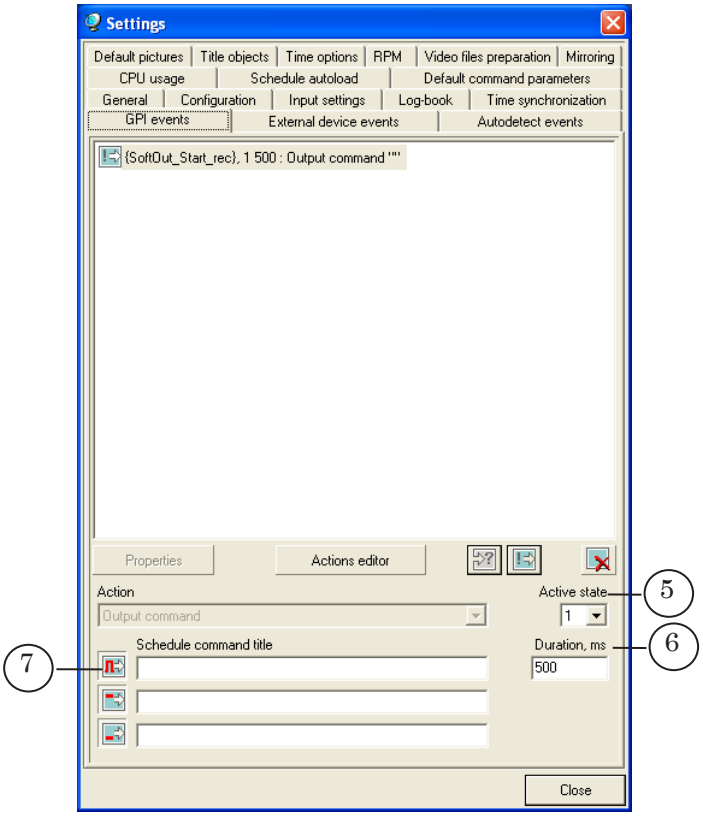
Using the Send signal command you can send three types of signal: impulse, closing and opening.

Tip: To send SoftGPI signals we recommend using the commands intended to send impulse signals.

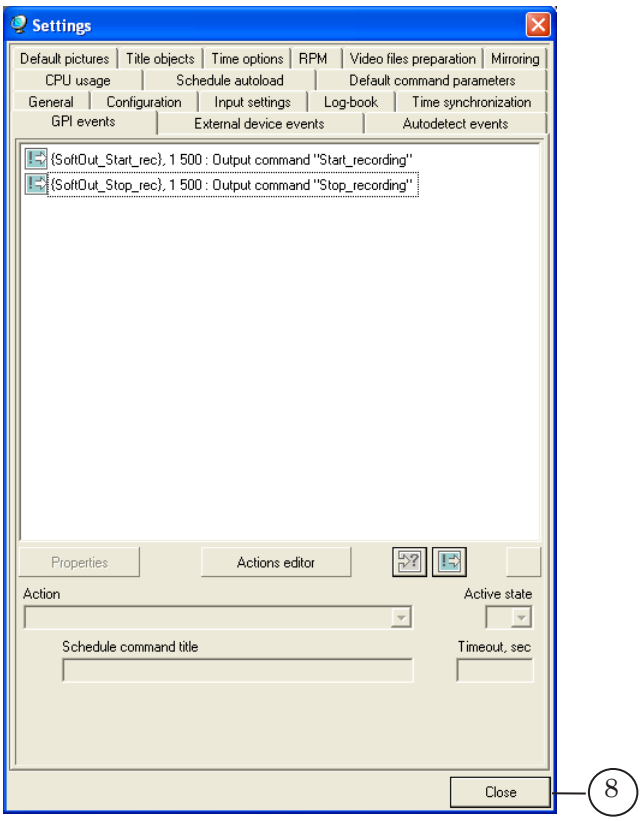
5. Configure the command.

   The default value of the Active state (5) and Duration parameters (6) works well for commands sending impulse signals.

   Enter the command name to the Schedule command title field (7), marked with this icon (7). This text is displayed when the command is added to schedule in FDOnAir in the Name schedule column.



6. Create commands for sending all necessary SoftGPI signals by repeating steps 3-5.

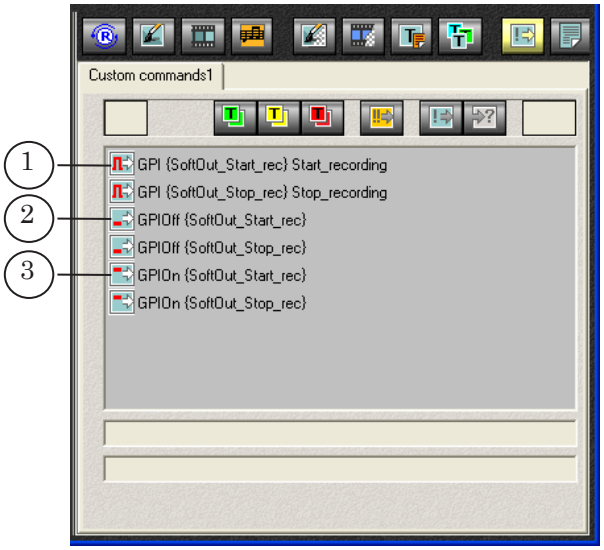


7. To close the application, click OK (8).

3.2. Creating a schedule

To add the Send signal commands to your FDOnAir schedule, open the Custom commands files page in the main window by clicking  .

For each Send signal command configured in the GPI events tab in the Settings window, three commands intended to send signals of different types (impulse (1), opening (2) and closing (3)) are displayed in the files page.



To add a command to your schedule, do the following:

1. Click on the Name field to place the position indicator () to required schedule line.
2. In the Custom commands files page double click on the command line.

To see an example of a schedule with the Send signal commands check out the General Information section, p.3 “Sending GPI signal from FDOnAir”.

4. Setting GPI signals control in FDCapture

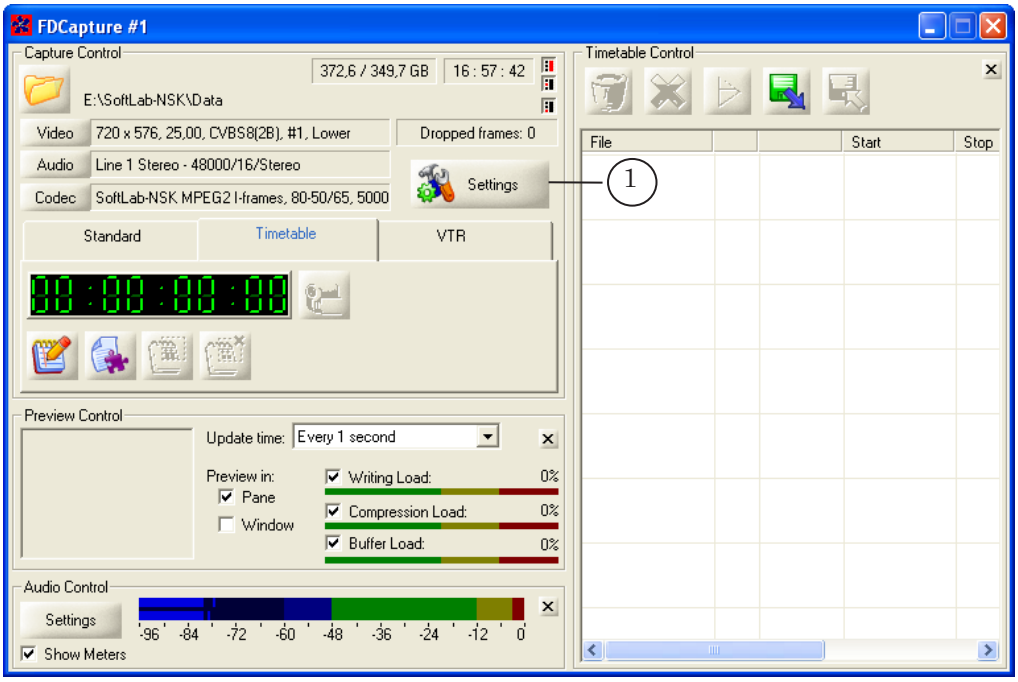
For more information on working with the FDCapture application, see the FDCapture – Capturing Video and Audio Data User's Guide.

To set GPI signals control, do the following:

1. Launch the FDCapture application by one of the following actions:
   - opening the file ~\Capture\FDCapture.exe, where ~ denotes the full path to the folder where the ForwardT Software is installed;
   - using the application shortcut on your desktop (1);

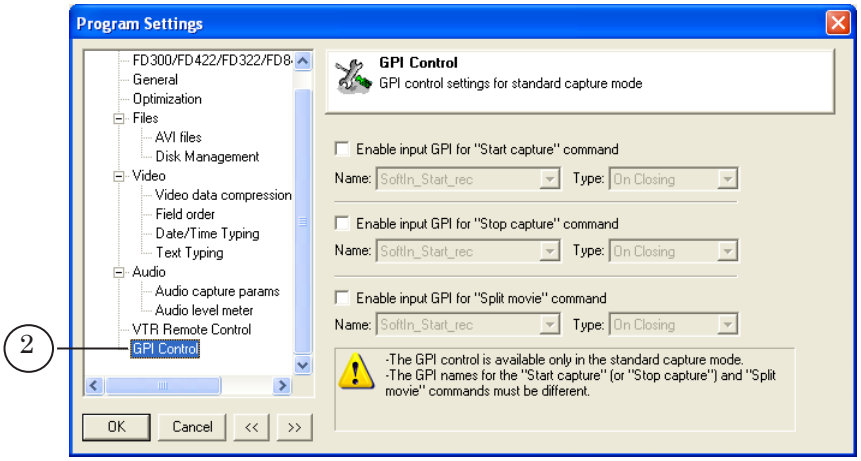
   - through Start: ForwardT Software > Video > Capture.

2. In the window that opens click Settings (1).

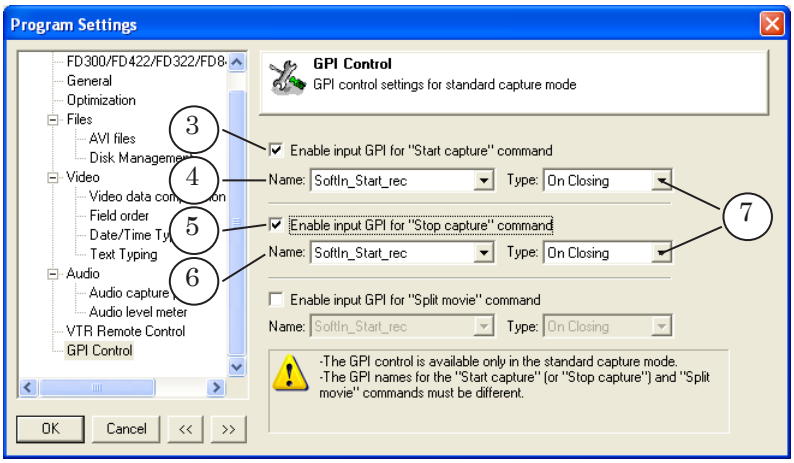


The Program Settings window opens.

3. In the Program Settings window open the GPI control panel (2).



4. Select the Enable input GPI for “Start capture” command check box (3).



5. In the Name list (4) select the input GPI signal identifier.
   Select the one that is paired with that output signal which is configured to be sent from FDOnAir to start capturing.
6. Select the Enable input GPI for “Stop capture” command check box (5).
7. In the Name list (6) select the input GPI signal identifier.
   Select the one that is paired with that output signal which is configured to be sent from FDOnAir to stop capturing.
8. When using in FDOnAir the Send signal commands intended to send impulse signals, the Type parameter (7) can have any value.
9. To close the Program Settings window, click OK (8).

Important: Launch the FDCapture program before broadcasting.

Useful Links

Forward T Product Line: Description, Software Delivery, Documentation, Ready Solutions

http://www.softlab-nsk.com/forward/index.html

Support

e-mail: forward@sl.iae.nsk.su

forward@softlab-nsk.com

forward@softlab.tv

Forum

http://www.softlab-nsk.com/forum (currently available in Russian only)

Documentation for Additional Information:

FDCapture. Capturing Video and Audio Data

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