RemoteOnAir

Remote Access to FDOnAir

*Revision as of
July 28, 2011*

Quick Start

FCC Information

FCC ID:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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.
Consult the dealer or an experienced radio/TV technician for help.

Shielded cables and I/O cards must be used for this equipment to comply with the relevant FCC regulations. Changes or modifications not expressly approved in writing by SoftLab-NSK Ltd. may void the user's authority to operate this equipment.

Limited Warranty

Our company warrants this product against defects in materials and workmanship for a period of one year from the date of purchase. During the warranty period, products determined by us to be defective in form or function will be repaired or replaced at our option, at no charge. This warranty does not apply if the product has been damaged by accident, abuse, misuse, or as a result of service or modification other than by us.

This warranty is in lieu of any other warranty expressed or implied. In no event shall we be held liable for incidental or consequential damages, such as lost revenue or lost business opportunities arising from the purchase of this product.

Table of Contents

Introduction

The RemoteOnAir plugin is designed to control a process of broadcasting distantly and provides with a remote access to broadcasting server. Operating machines can be located in the limits of a local network or interact by means of the Internet (VPN).

The plugin allows connecting with the FDOnAir main application window and implementing the following remotely:

- to control a broadcasting process: current playback state, block remain time etc.;
- to control a playback of audio/video data (passthrough video, ads, titles overlayings) by means of interactive control buttons and hot keys;
- to load schedules from files to FDOnAir and control its execution.

Advantage of the plugin in comparison with other systems of remote access is in text strings (internal FDOnAir commands) used for machines interacting. This factor creates a minimal network load and provides with a high speed of interaction.

You may get a remote access to several FDOnAir instances working with the only RemoteOnAir plugin instance. Also, you may get an access to one FDOnAir instance from different machines with the installed plugin.

There are 2 types of the RemoteOnAir product:

- RemoteOnAir4 – designed for dealing with 4 FD300 boards;
- RemoteOnAir16 – designed for dealing with 16 FD300 boards.

Boards can be plugged into one/several machines.

General Workflow

The RemoteOnAir plugin is an additional program option. Installation is implemented on machine from which a remote control over broadcasting server will be executed. The plugin requires a registration key. For more information on this issue see the «Plugins Setup» user's guide.

✔ **Important:** Complete the following to control FDOnAir remotely:

1. Install software with identical versions on used machines.

2. Switch firewall on machines off or add exceptions for the SLMessageServer2 service (for more information on this issue, see the SLMessageServer2 section).

Complete the following steps to prepare for working with FDOnAir remotely (detailed information is given in corresponding sections below):

1. Configure necessary FDOnAir application instance on a broadcasting server. Prepare broadcasting schedule. Load title project.

   In the FDOnAir application select Settings > Mirroring and put the «Receive and execute commands» check mark. The option is necessary for further working with the RemoteOnAir plugin.

2. Launch the RemoteOnAir plugin on machine from which a remote control over broadcasting will be implemented. The following steps are implemented in the RemoteOnAir program window.

3. Specify connection parameters: hostname where broadcasting server is launched and corresponding FDOnAir application instance index. A new operating panel to control broadcasting server is added to the RemoteOnAir program window.

4. Configure the panel by adding necessary blocks of buttons and indicators to control broadcasting server.

Note: If you need to have a remote access to different FDOnAir instances implement the 1, 3, 4 steps to make configuration for each instance. In this case several operating panels appear in the RemoteOnAir program window.

5. Switch from edit to work mode in the RemoteOnAir program.

6. Launch all necessay FDOnAir instances and connect to each of the instances from RemoteOnAir.

7. If connection is correctly set buttons and indicators on

RemoteOnAir operating panel display current state of a corresponding FDOnAir instance. Clicking the buttons on panel corresponds clicking the buttons in the FDOnAir window.

8. All connections will be automatically disconnected if the RemoteOnAir application window is closed. At the next launch the application will be opened in edit mode. Complete the 5,6 steps to connect with broadcasting server again.

Configuration of the FDOnAir Application for Receiving Commands (Step 1)

Complete the following steps for the FDOnAir application to execute the commands received from the RemoteOnAir window:

1. Launch necessary FDOnAir application instance on a broadcasting server.

2. Click the Settings button (1) in the main application window.
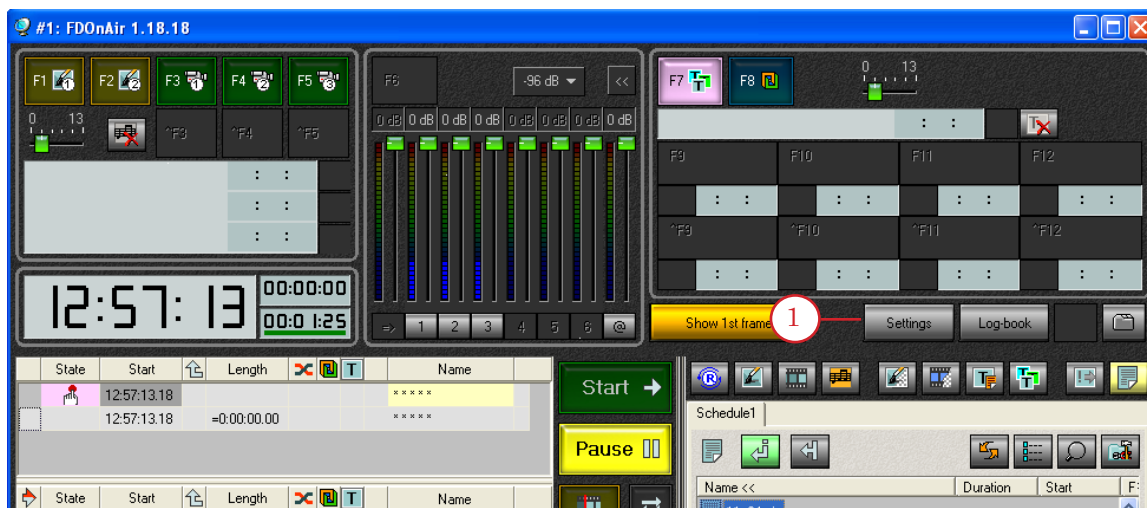
3. Pass to the Mirroring tab (2) in the Settings window.
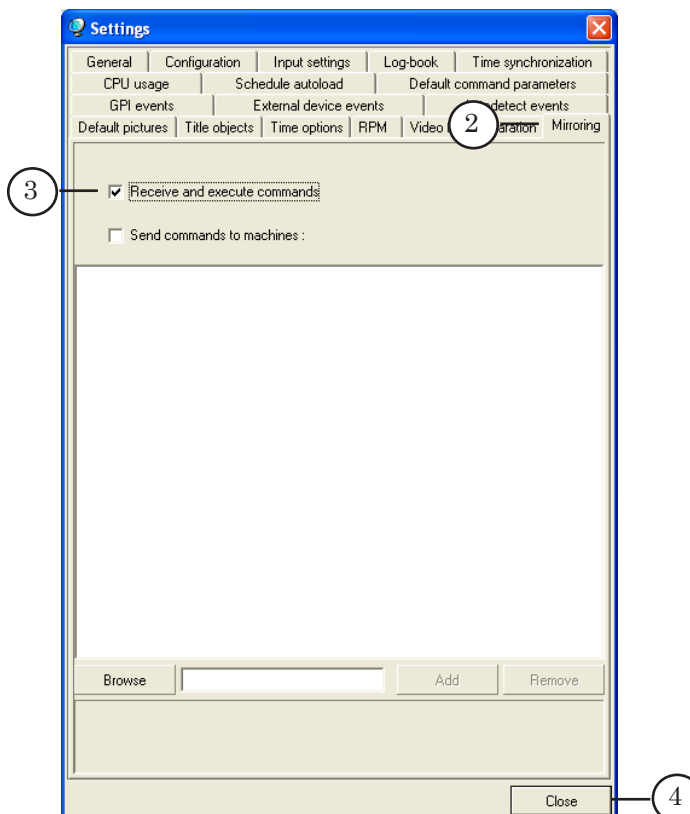
4. Put the Receive and execute commands check mark (3) to allow receiving external commands from other applications (the RemoteOnAir plugin in our case) and executing them.

5. Then click Close (4) to save the settings and close the window.

6. The Disable/enable receiving of mirror commands button (5) becomes active in the main application window.
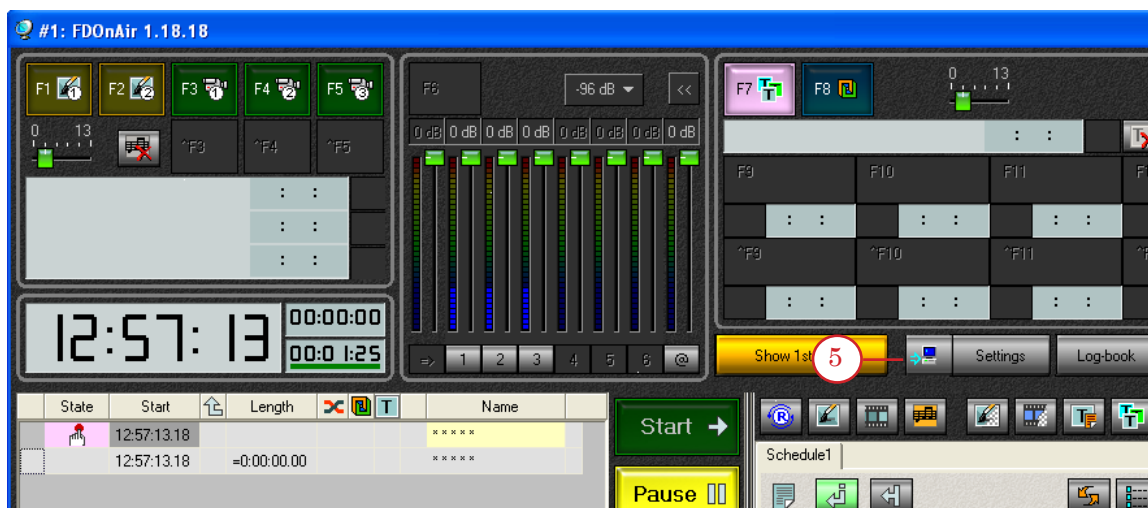

7. Note that this button has 2 states. Color of the button indicates its state:

   • red – commands are not allowed to be received;
   • grey – commands are allowed to be received.

   Single clicking of the button disables receiving of commands, the next clicking enables it.

Launch of the RemoteOnAir Program (Step 2). RemoteOnAir Projects Handling

Note: The RemoteOnAir project is a set of operating panels configured by user that provide with a remote access to FDOnAir. Projects are stored in the *.SLRemOnAirCfg files.

1. Launch the RemoteOnAir application via Start: Programs > ForwardT Software > Plugins > RemoteOnAir.

   At first program launch main application window with an empty project appears. During subsequent launches the latest saved project appears. The program is always launched in edit mode.

2. Click File > New (1) in the main program window to create a new project. Click File > Open (2) to open the existing one.
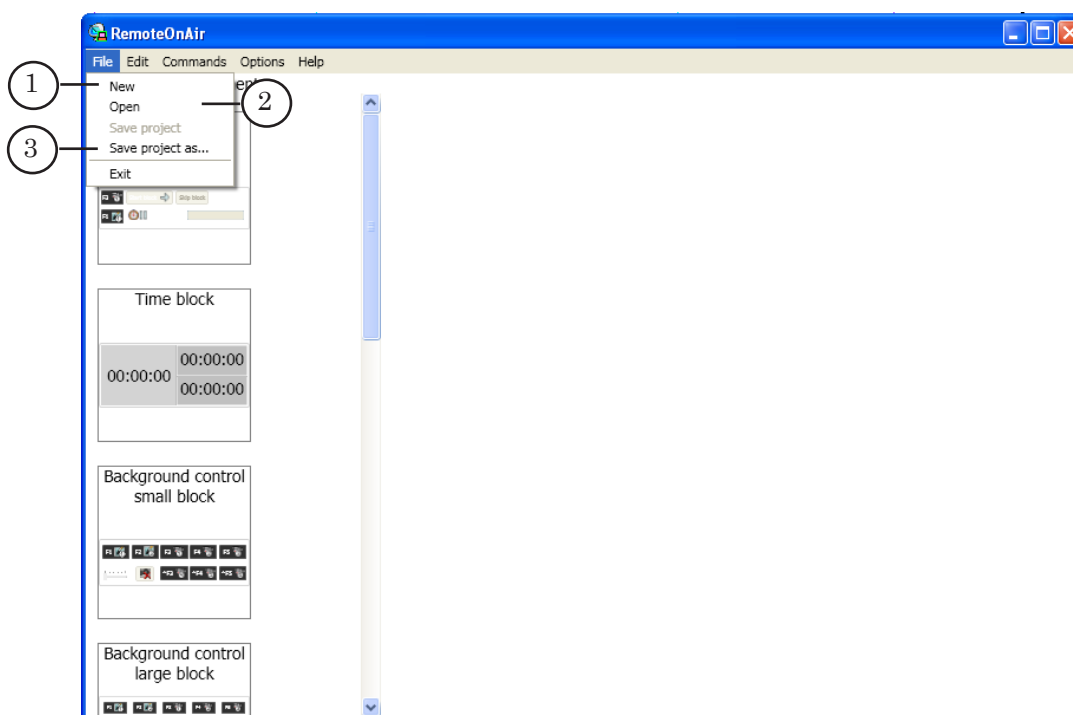

3. Add and adjust necessary operating panels. Then save the project via the File > Save project or Save project as... menu command (3).

Adding of Panels to Control FDOnAir (Step 3)

User manually creates operating panel in the RemoteOnAir main window for each of the FDOnAir program instances. Adding and configuring are implemented in edit mode (when the Edit mode check mark in the Commands menu is put).

1. Use the Commands > Edit mode > Add OnAir command (1) in the main program window to add new panel to control FDOnAir remotely.
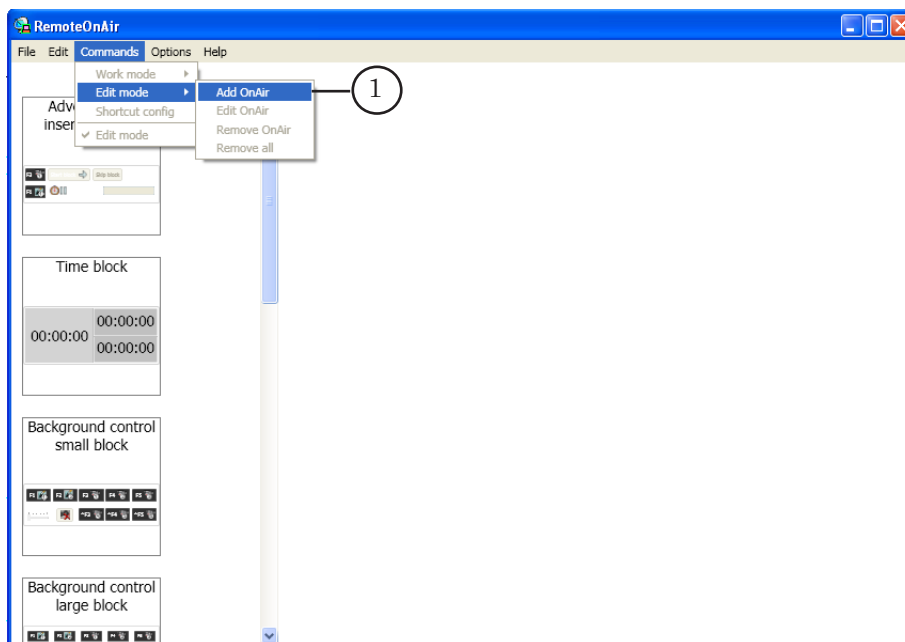

In the Add OnAir appeared window:

2. Specify name of configuration (2). The name will be displayed in the panel title bar.
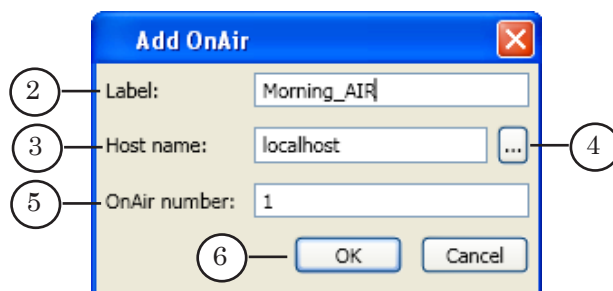
3. Specify hostname (LAN name/IP address/DNS) in the Host name field (3). Open the window for selecting machine in local net using the ... button (4).

4. Specify index of application instance in the OnAir number field (5).

5. Click **OK** (6) to apply the settings.

6. New panel (7) appears in the main program window. The **Connect** button and an indicator also appear. In edit mode the button is inactive, indicator displays disconnection.
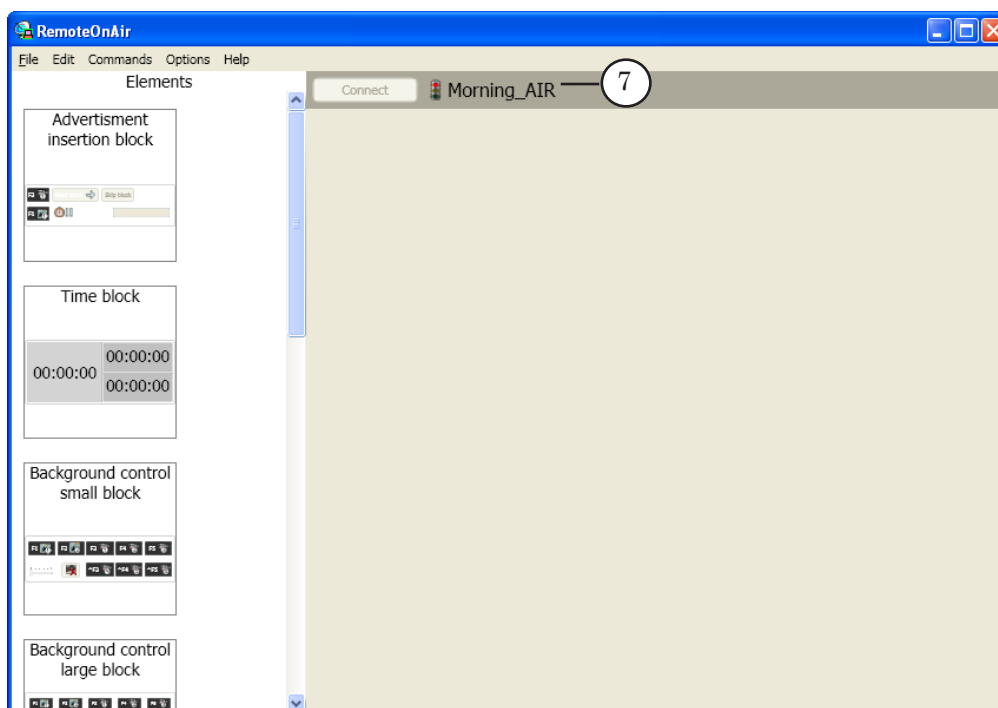
Configuration of a Panel (Step 4)

RemoteOnAir working panel can be configured for a specific purpose by adding required groups of control elements (buttons and indicators). You may put them in a place more conveinient for you if needed. Also, there is a possibility of adjusting hot keys to buttons.

1. Blocks of Control Elements

Available blocks of elements are located on the Elements panel (1) in the main program window. The panel is available in edit mode.
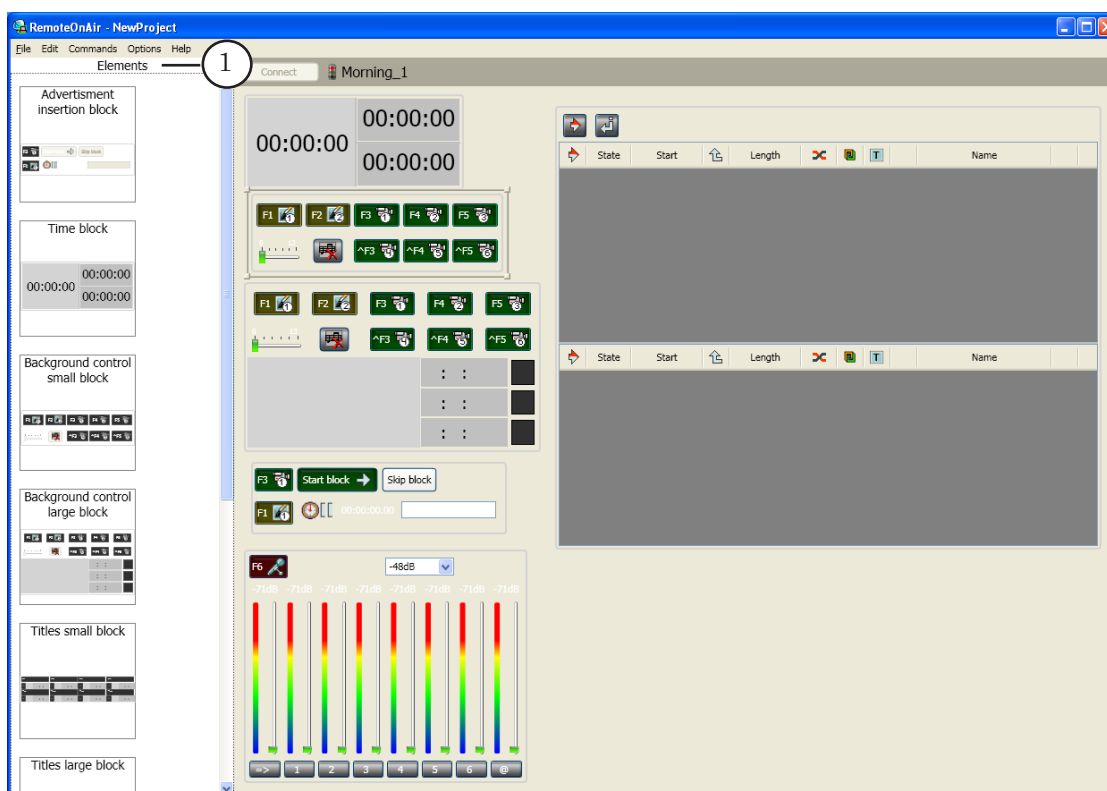

Main program window in edit mode. Example of panel customizing.

Most of the elements on this panel (according to the purpose and its appearance) correspond to control elements of the FDOnAir main application window. For more information on elements see the «FDOnAir. Broadcast Automation» user's guide.

Detailed information on blocks is given below. Pictures present blocks appearance when RemoteOnAir is in work mode and is connected with FDOnAir.

1. Ads insertion block: provides with a minimal set of elements to control a full-screen playback.
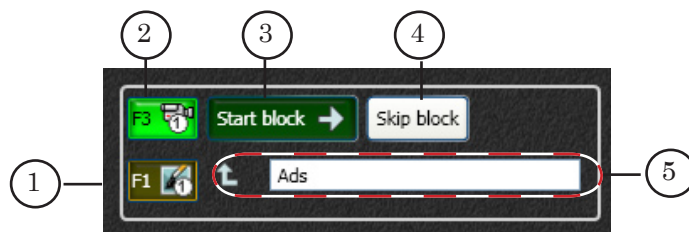
Block for ads insertion:
1 – default picture № 1 on; 2 – switch broadcasting of a passthrough video from Input 1 on; 3 – the Start block command (more detail see below); 4 – the Skip block command (detailed information is given below); 5 – string with information on the first command in current block (command of new block start).

The Start block command (example of command use is given below on the figure) interrupts execution of the current command from schedule (1) and launches the next one (2) – a command in which string there is the «next command» indicator (3). In this case the indicator is moved to the next string.
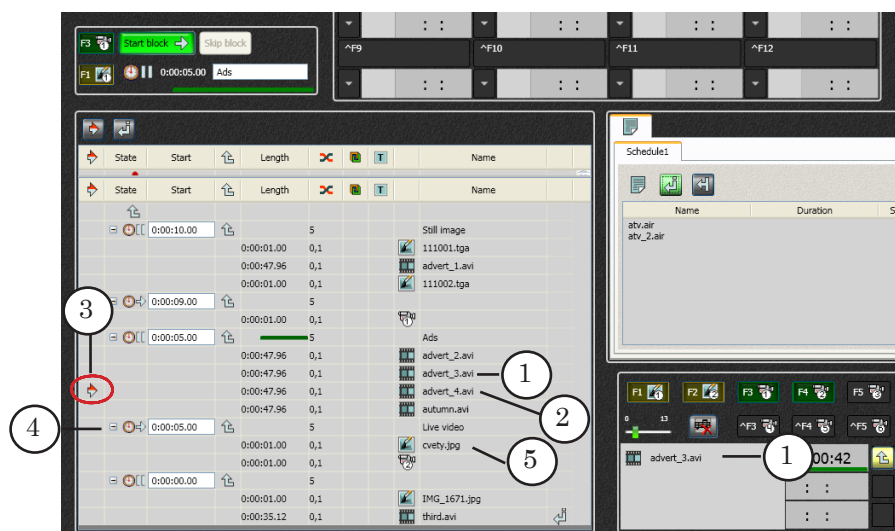

Fragment of a panel. Blocks of ads insertion, control of background and schedule:
1 – currently executing command; 2 – the next command for being executing; 3 – the next command mark; 4 – start of block; 5 – the first executing command in block.

The Skip block command shifts the next command indicator (3) to the first command of the next block (the Wait particular time command (4)) and switches schedule to the «Pause» state. In this state the current command will be executing till the end. Then execution of schedule stops. Click the Start block button for further execution of the schedule. In this case the command that follows start block command (5) will be executing.

2. Time block: provides with indicators to control time.
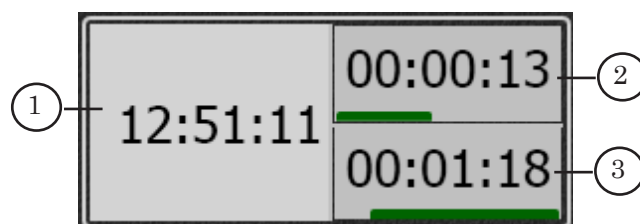
Time block:
1 – current time in FDOnAir; 2 – period of time from start of the current command execution; 3 – remain block time.

3. Background control blocks: provides with controlling elements and a possibility of interactive control over a fullscreen broadcasting.


A

B

Background blocks: main (A), reduced (B):
1 – display default picture № 1/2; 2 – broadcasting of a passthrough video from Input 1 – 6 (the Input 1–6 command); 3 – crossfade duration slider (active when clicking the F1–F5, F3–F5 buttons); 4 – cancels audio file playback, schedule is in «Pause» state in this case; 5 – current playback indicator (displays data on broadcasting of video/audio data/pauses/ remain time from/till playback finish); 6 – the Wait finish option.

4. Titles control blocks: provides with controlling elements and a possibility of interactive control over titles overlayings.
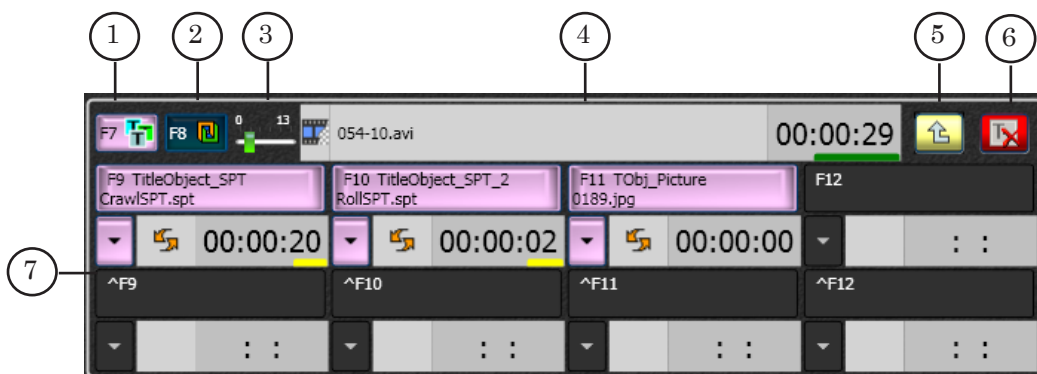

A

B

Blocks of titles control: main (A), reduced (B):
1 – title objects on/off; 2 – logotype on/off; 3 – logo/titles fade duration slider (active when working with buttons for title control);
4 – fullscreen titles playback indicator (for video and transparent pictures), displays file name and remain playback time; 5 – the Wait finish option; 6 – the Clear fullscreen title command; 7 – buttons to control title objects assigned to the F9–F12, F9–F12 buttons.

5. Audio control block: provides with elements to control audio playback.
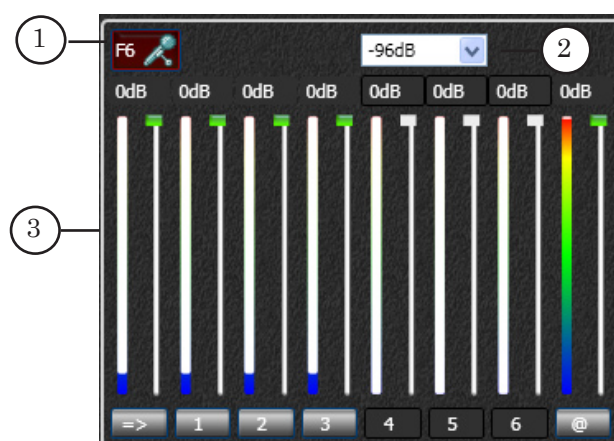
Audio control block:
1 – the Auxiliary audio on/off command; 2 – the Set min audio level command; 3 – area to control audio lines.

6. Schedule block: provides with 2 schedule tables corresponding to tables in the main FDOnAir application window.

You may control a process of schedule executing: current block, the next command, specified time of blocks start, information on errors.
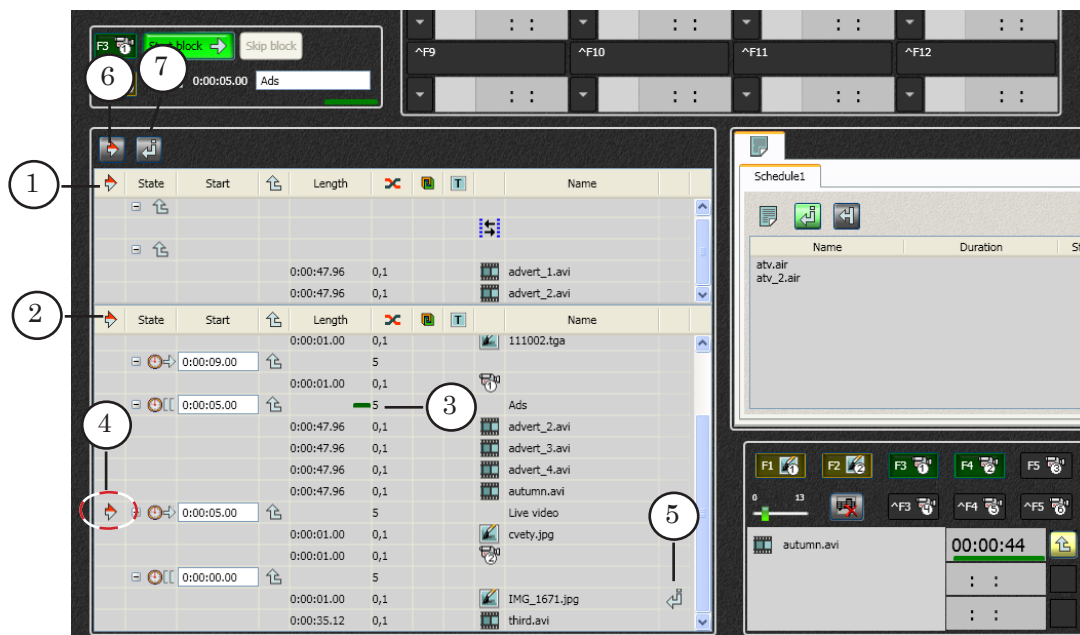
Fragment of a panel. Blocks with time, control over background, insertion of ads and schedule:
1 – first schedule table; 2 – second schedule table; 3 – progress bar (displays a process of current block executing); 4 – the next command for being executed; 5 – edit position indicator; 6 – show start time from run position on/off; 7 – show start time from edit position on/off.

It is impossible to switch from one table to another one manually to change executable schedule. It can be done automatically via the Switch to other schedule command or using schedule autoload option.

It is impossible to add/delete manually separate commands to the schedule table. You may load in selected table a schedule from file instead/in addition to a currently executing one. In this case use ScheduleEdit block (more detail see below).

Usually in work mode only for start block commands start time is displayed. For other commands time is displayed only if a corresponding option is on. To switch this option on use the (6, 7) buttons.

There are 2 ways of start time displaying that can be switched on/off independently:

1. Enable displaying of start time of commands located in the current executing position and below it (1).
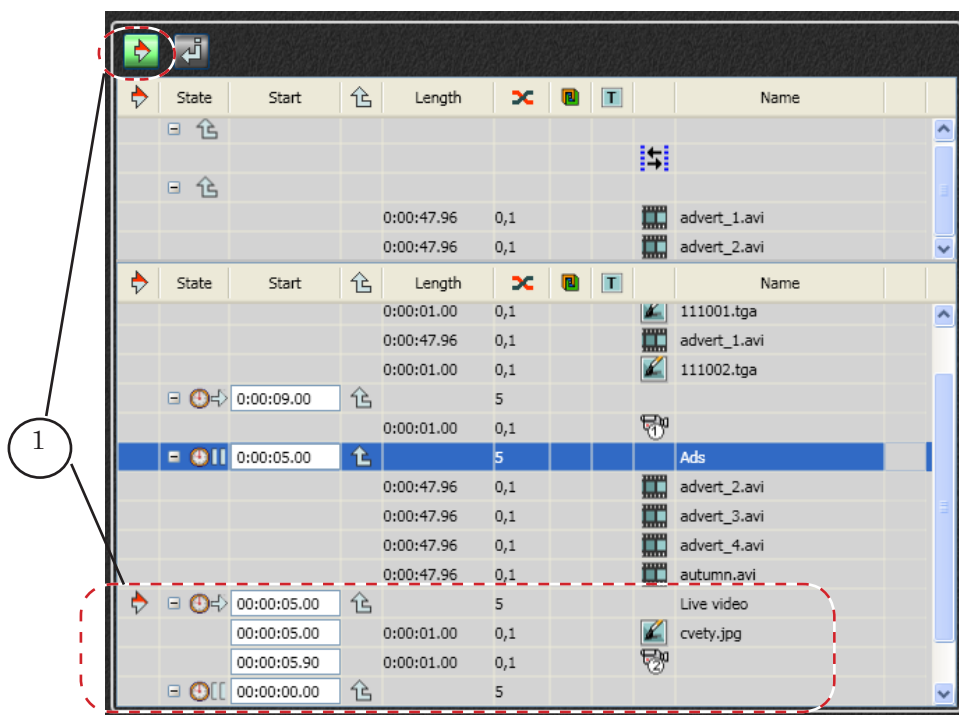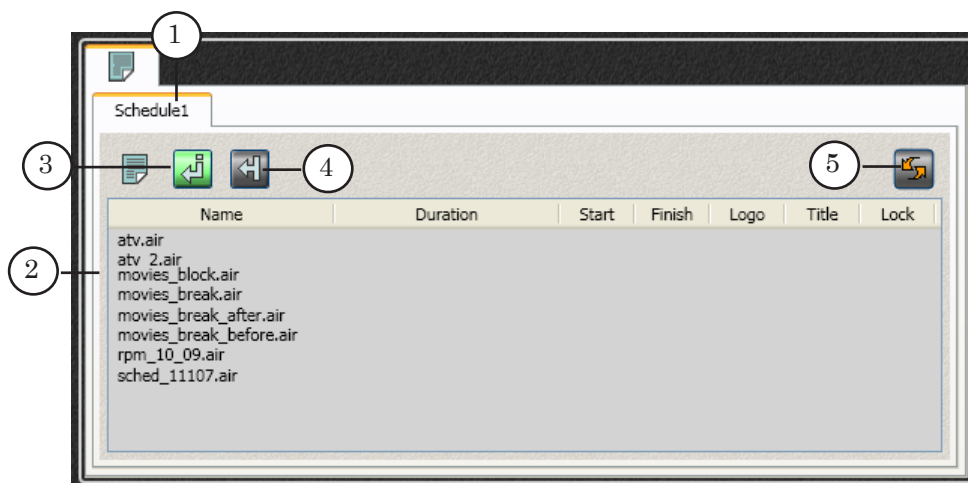
2. Enable displaying of start time of commands located in the current editing position or below it (2).
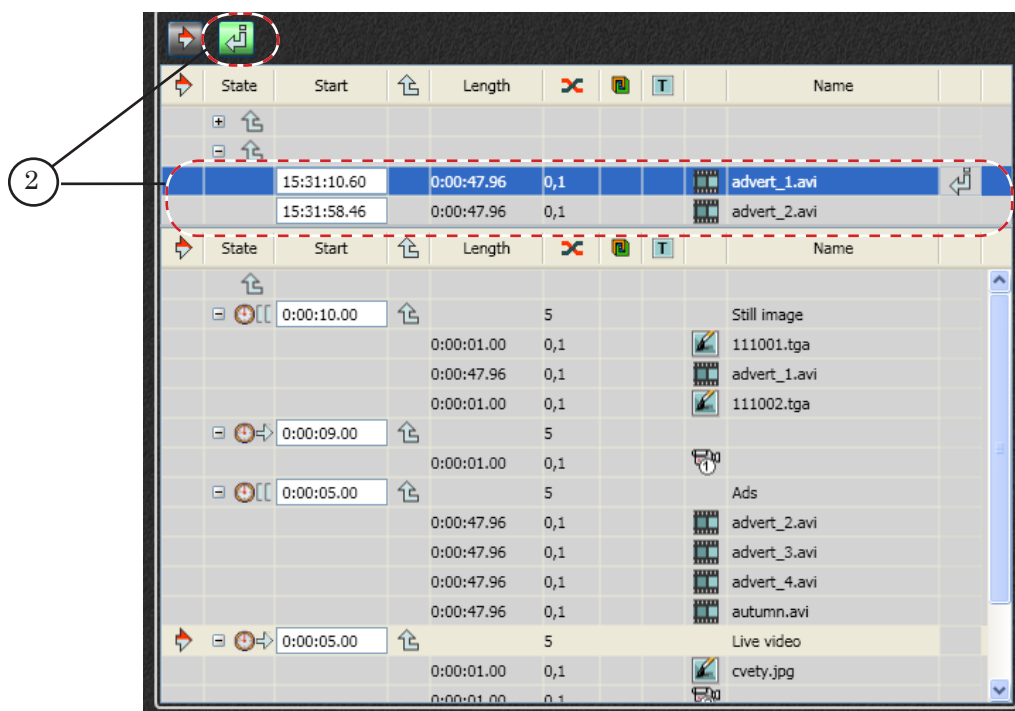
7. Schedule editing block: elements of this block correspond to a group of Schedule file pages in the main FDOnAir application. A list of schedule files from specified folder is displayed on each page.

ScheduleEdit block:
1 – tabs corresponding to FDOnAir tabs with schedule pages; 2 – list of schedules; 3 – insert mode; 4 – overwrite mode; 5 – refresh files list.

Complete the following to load schedule from file into specified table:

1. There are 2 edit modes:

- Insertion – adding of strings of loading schedule to already present in table, below a string with indicator;
- Replacement – deleting of the current schedule from table and load a new one.

Select a necessary one by clicking a corresponding button.

2. Place current position indicator in required schedule string.

3. Double-click name of file with schedule.
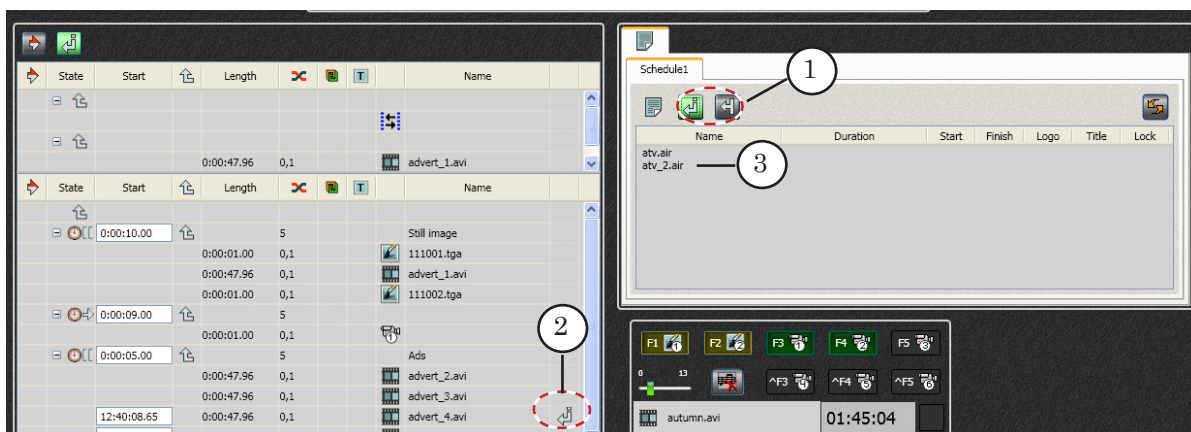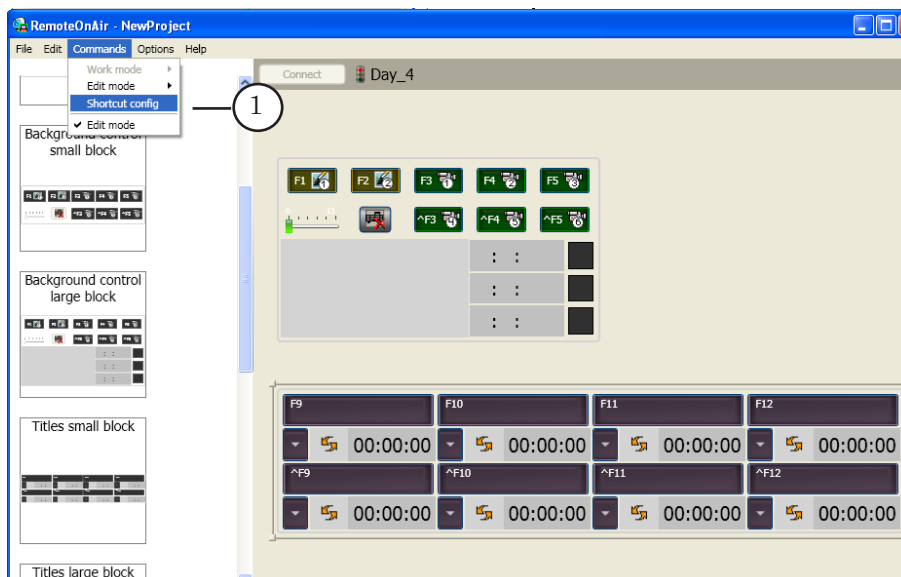
2. Adding of Blocks on Panel

Select necessary block on the Elements panel (1) by clicking and dragging it to operating panel (2).
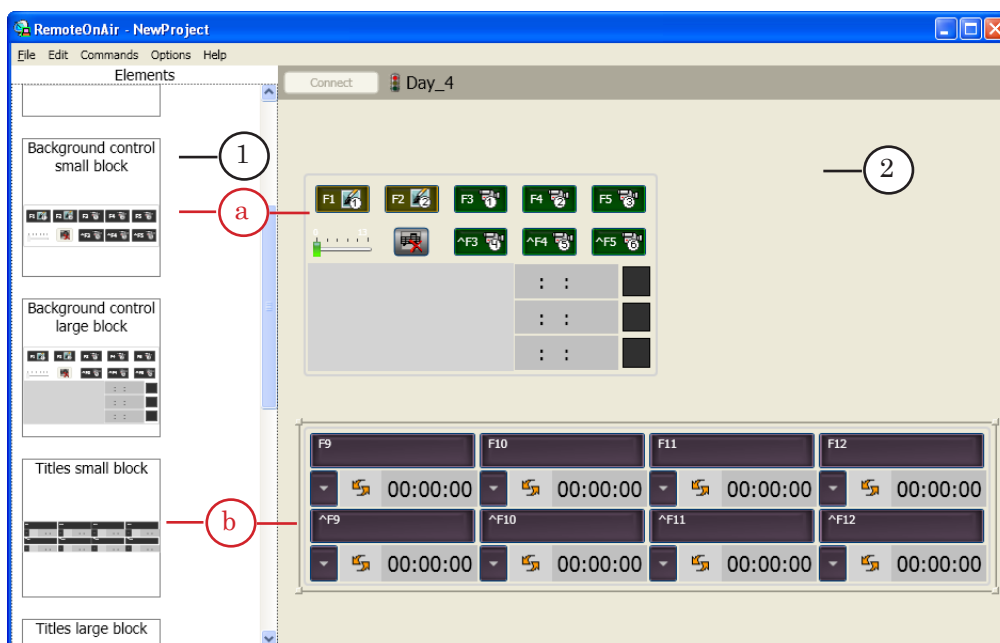
3. Hot Keys

Complete the following to adjust hot keys:

1. Select Commands > Shortcut Config (1) in the main program window.


2. Select name of operating panel to which hot key is adjusted in the OnAir drop-down list (2), Morning_Air is in our example.

3. Select elements block in the Control drop-down list (3). Table with the list of commands (4) displays only those commands that correspond to the buttons of the selected block.
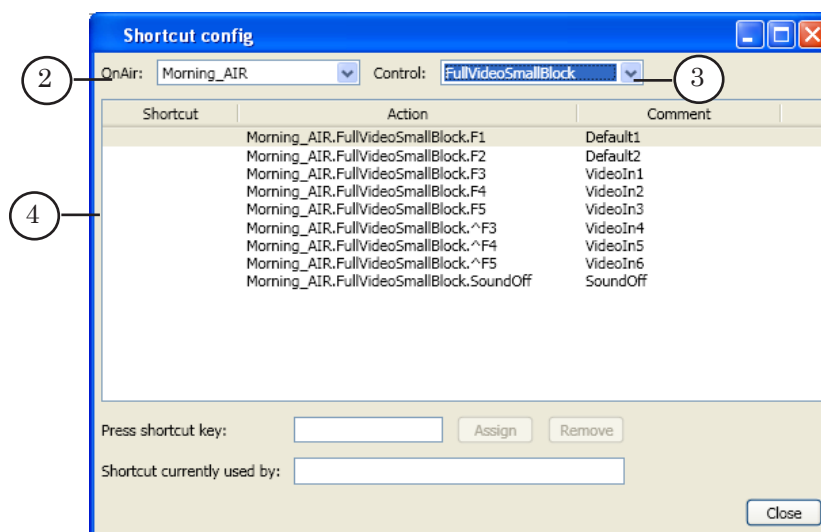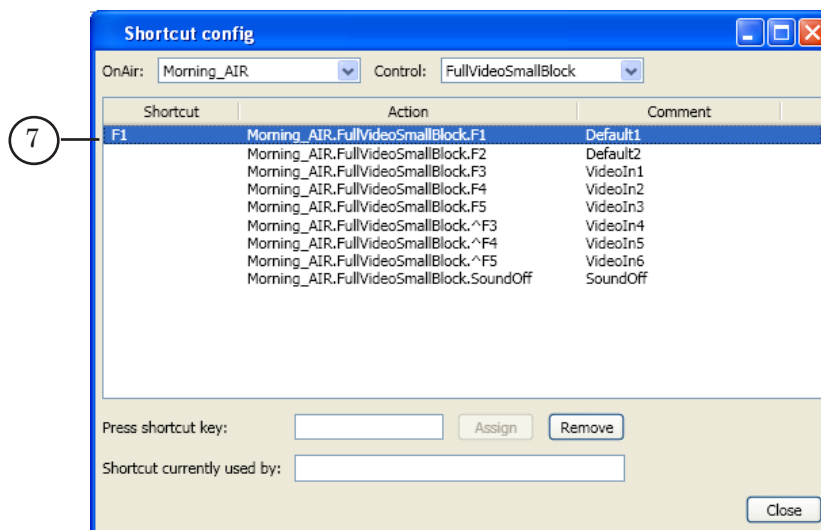

4. Select necessary command by clicking a string with it in the table.

5. Set a cursor in the Press shortcut key field (5).

6. Press a button/combination of buttons on keyboard that correspond to the selected command. Its name will be displayed in the Press shortcut key field.
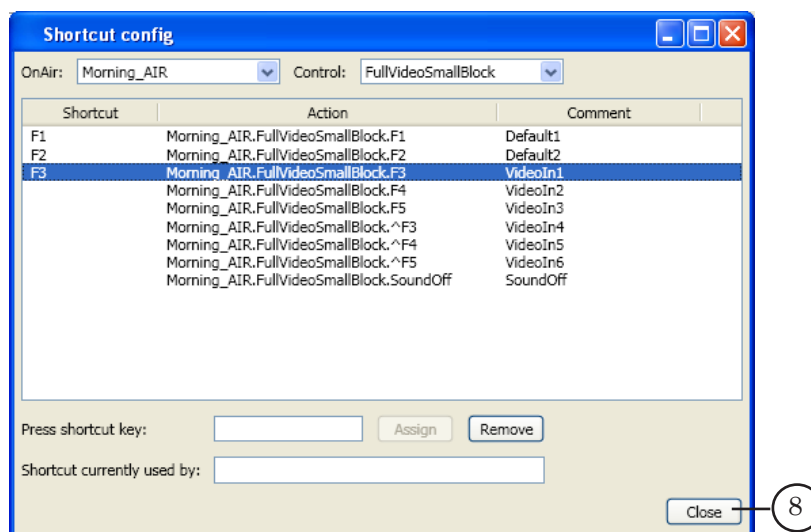
7. Click Assign (6).
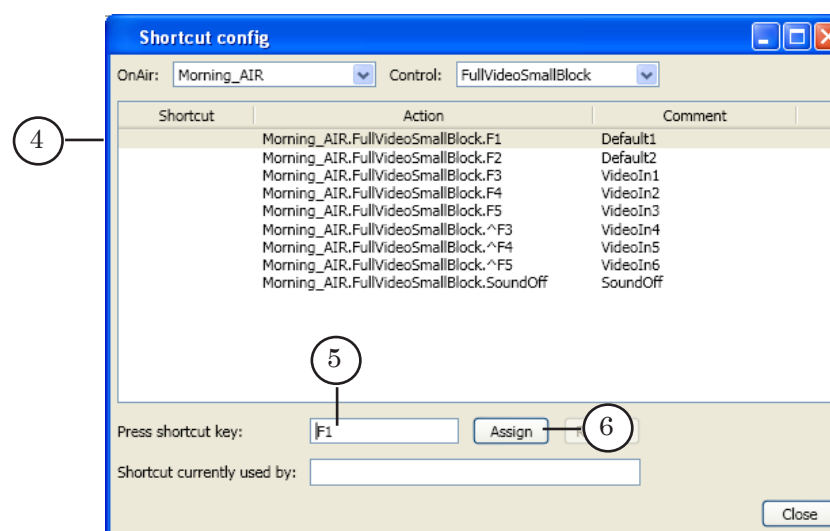
8. Name of assigned key is added to string with the command (7).

9. Assign other keys by repeating steps 4–7.

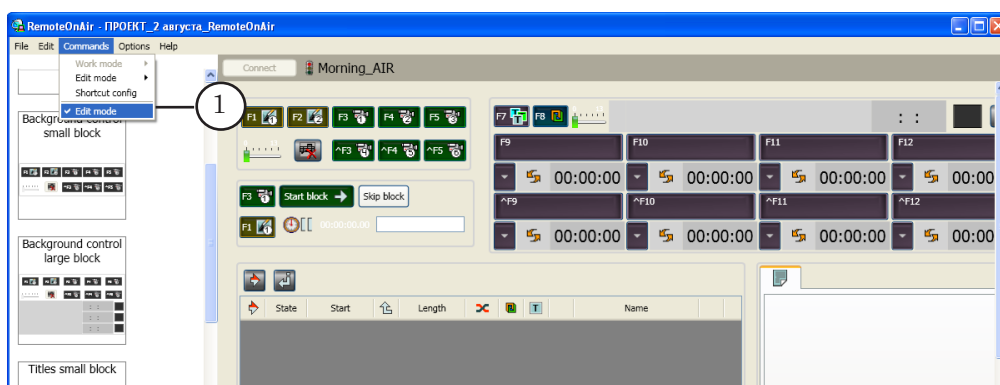10. Click Close (8) to apply the settings and close the window.

Remote Access to FDOnAir (Steps 5, 6)

When configuration is complete toggle to the Work mode in RemoteOnAir and connect with broadcasting server by completing the following steps:

1. Open the Commands menu and put the Edit mode check mark (1) off by clicking it.


2. The application toggles to Work mode. The Connect button (2) on panels becomes active.
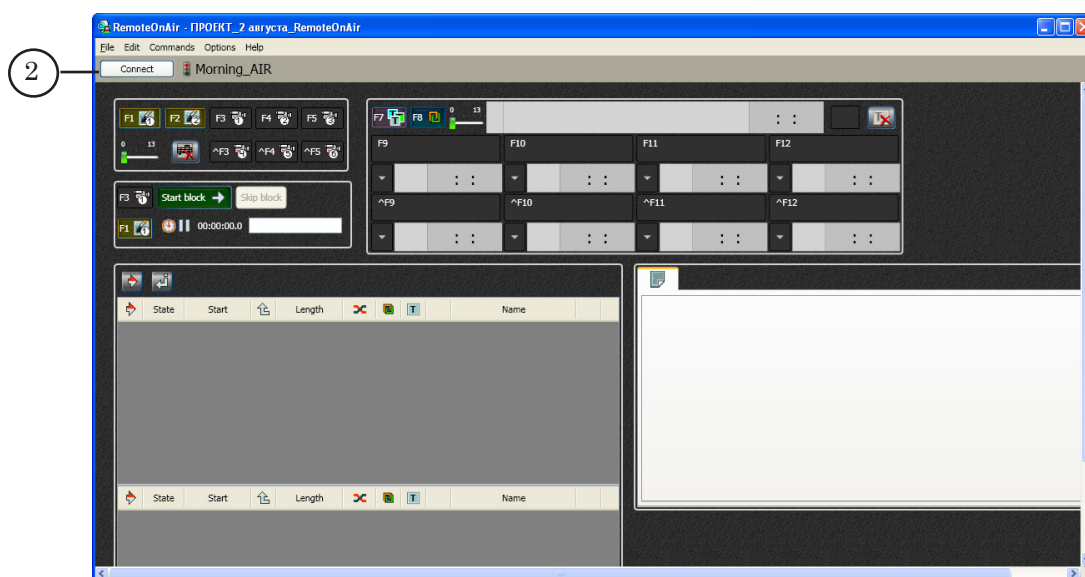
3. Click Connect on corresponding panels to connect remotely with corresponding FDOnAir program instance.

4. If there is a connection the indicator (3) becomes green. Name of the button turns into Disconnect (4). State of buttons on panel (5) of the RemoteOnAir program correspond to state of buttons of the FDOnAir application.
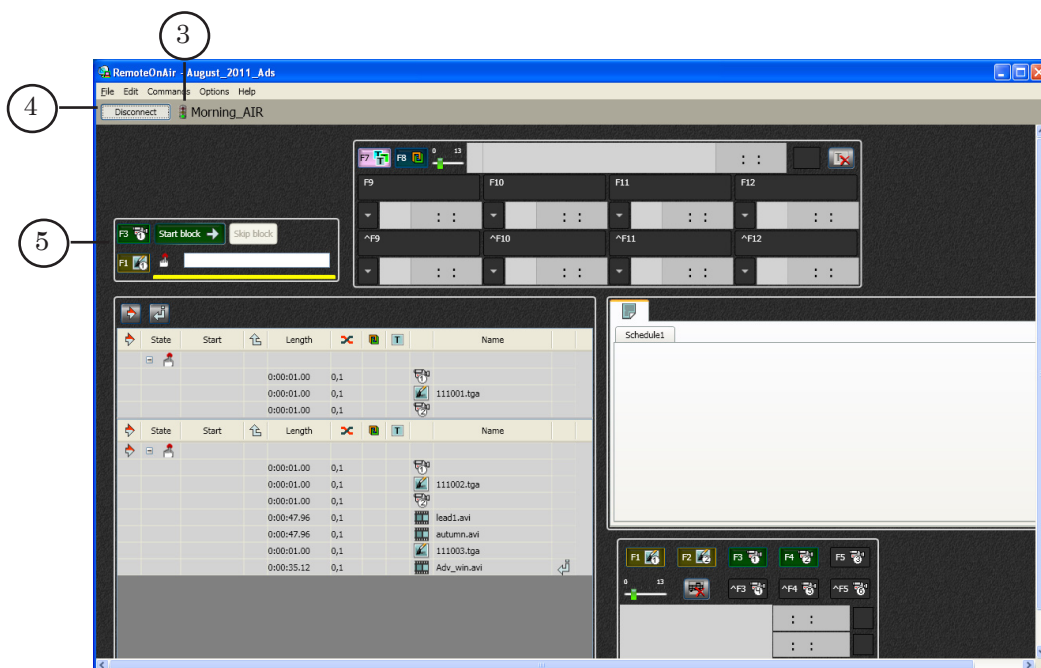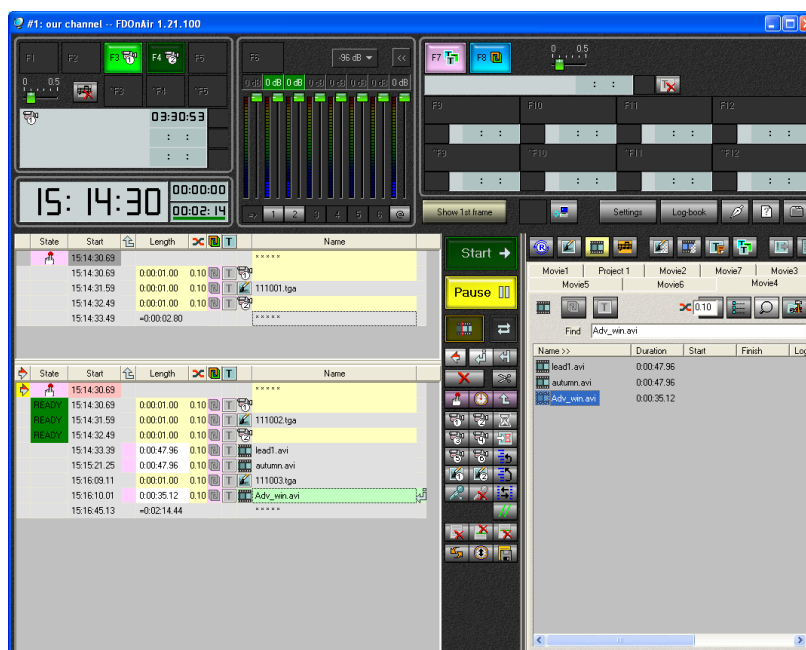
5. To check if connection is correct click any of the buttons on the panel and be sure that the same button is clicked in the FDOnAir application, for example, F3 (6) and F8 (7).
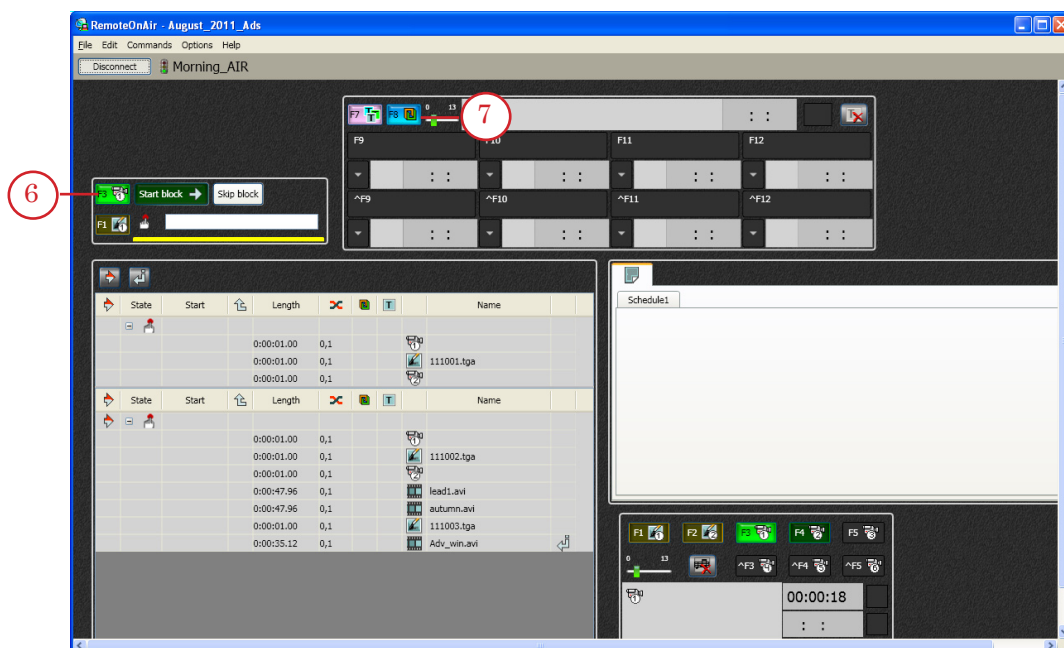
6. The F3 (8) and F8 (9) buttons will be active in the main FDOnAir window on remote machine.

7. Put the Edit mode check mark in the Commands menu to toggle from Work mode to the edit one.

Additional Information: Configuration of Firewall

Configure Firewall (switch it off/configure exceptions for the SLMessageServer2 service) for a remote control over the FDOnAir application.

Complete the following on each machine if Windows Firewall (is on) is used:

1. Open Control panel via Start: Settings > Control Panel.
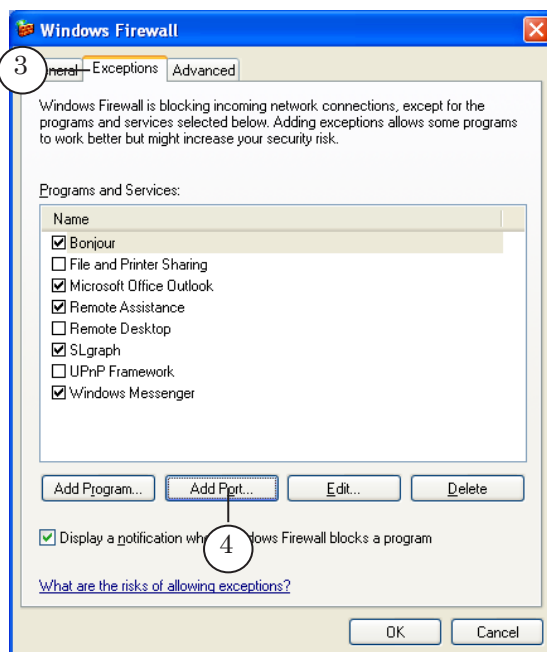
2. Double-click Windows Firewall (1).

3. Be sure that On (2) is selected (the General tab) in the appeared window.
   The following steps are implemented in this window.
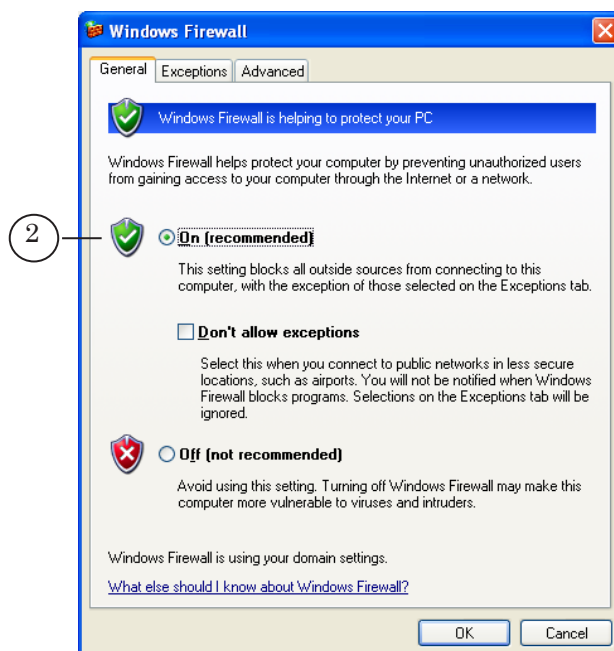
4. Pass to the Exceptions tab (3) and click the Add port...
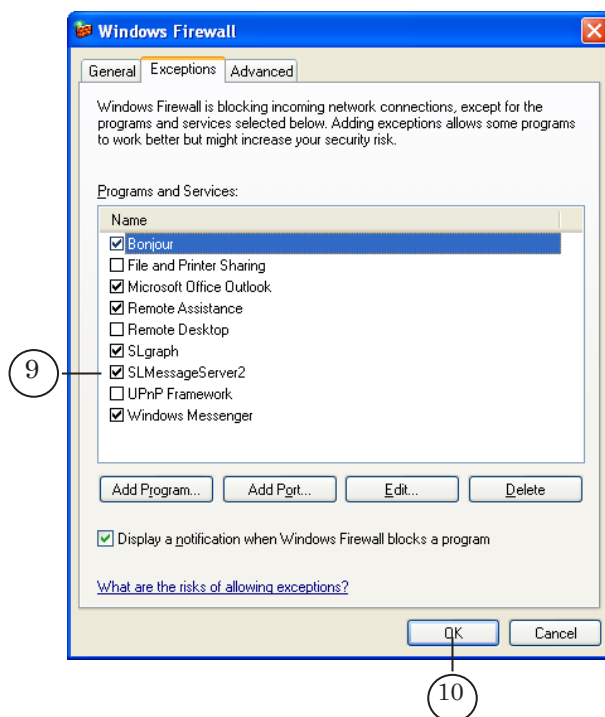   button (4).

5. In the Add a Port window:

   1. Be sure that TCP (5) is selected.

   2. Specify name of a service (SLMessageServer2) in the Name
   field (6).

   3. Specify SLMessageServer2 port number in the Port number
   field (7).
   Port 51051 is used by default.

   4. Click OK (8) to apply the settings and close the window.
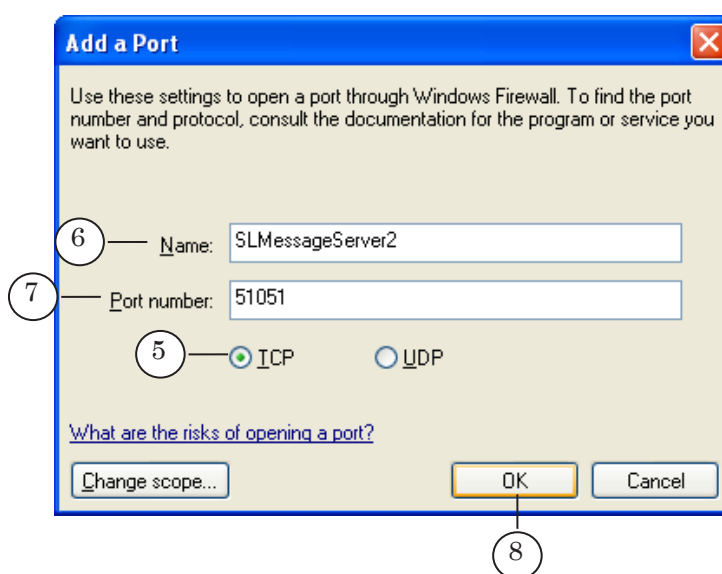
6. Specified item is added to the Programs and Services list (9).

7. Click OK (10) to save the settings and close the window.

Useful Links

ForwardT Software set: description, download, documentation, solutions

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

Support

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

forward@softlab-nsk.com

Forum

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

Documentation for more information:

1. Plugins Setup. User's Guide.
2. FDOnAir. Automation Broadcasting. User's Guide.
3. FDOnAir Commands. User's Guide.

Translation from
September 29, 2011

© SoftLab-NSK