Cinegy Stream Switcher 23.2

© Cinegy GmbH

Built 12.11.2026

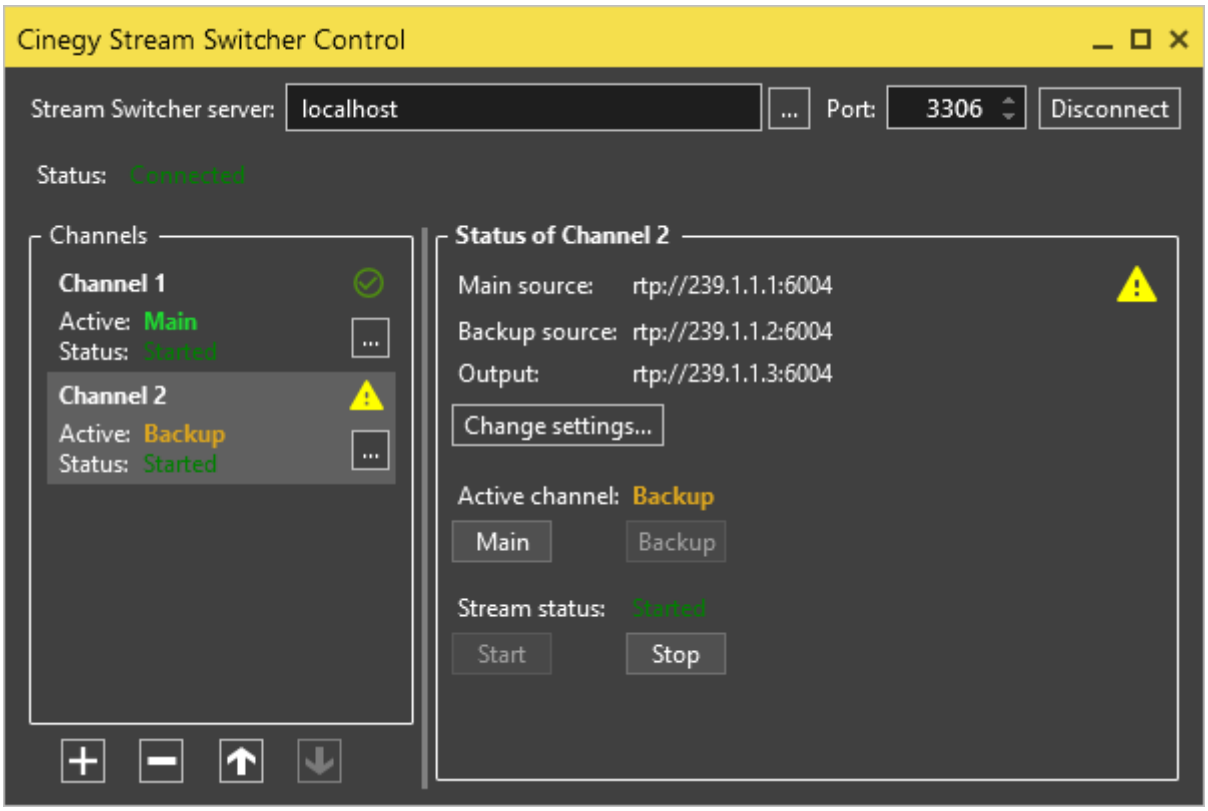
Table of Contents

Preface . . . 1
User Manual . . . 2
1 Introduction And Setup . . . 2
1.1 Overview . . . 2
Introduction . . . 2
Workflow with Cinegy Air . . . 2
1.2 Installation . . . 3
Installation . . . 3
Licensing . . . 6
2 Configuration and Operation . . . 7
2.1 Cinegy Stream Switcher Service . . . 7
Configuration . . . 7
2.2 Cinegy Stream Switcher Control . . . 9
Configuration . . . 10
Operating . . . 16

Preface

Cinegy Stream Switcher is a tool for the automatic switching of RTP/UDP stream sources in redundant configurations.

The system consists of two components – a service part that analyzes the incoming streams and performs the switching, and a control application that allows the user to manage the list of monitored channels.



User Manual

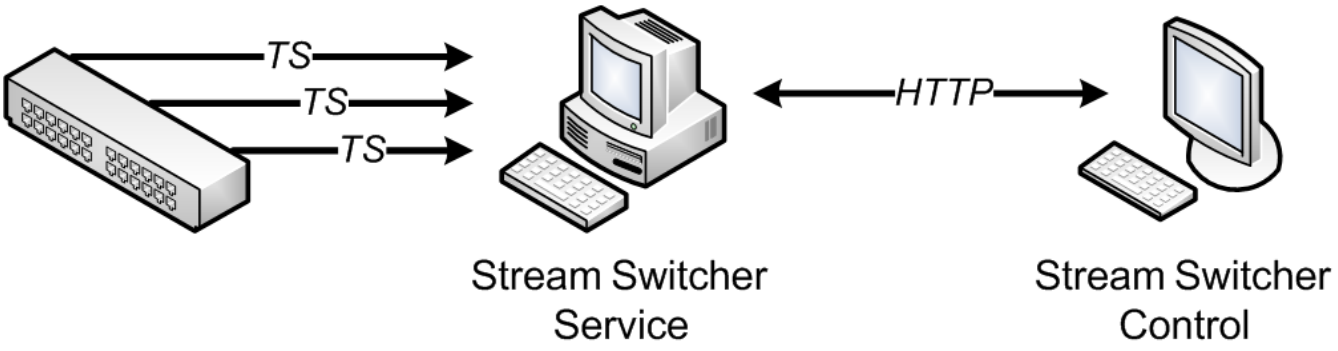
Chapter 1 Introduction And Setup

1.1 Overview

Introduction

Cinegy Stream Switcher is an automatic system to support failover configuration in IP domains. This application is used for the automatic switching of IP streams in redundant configurations. It works with any external system that generates RTP/UDP streams intended to be monitored.

Cinegy Stream Switcher consists of two components: the Cinegy Stream Switcher service and the Cinegy Stream Switcher Control application. The following diagram displays their interaction:



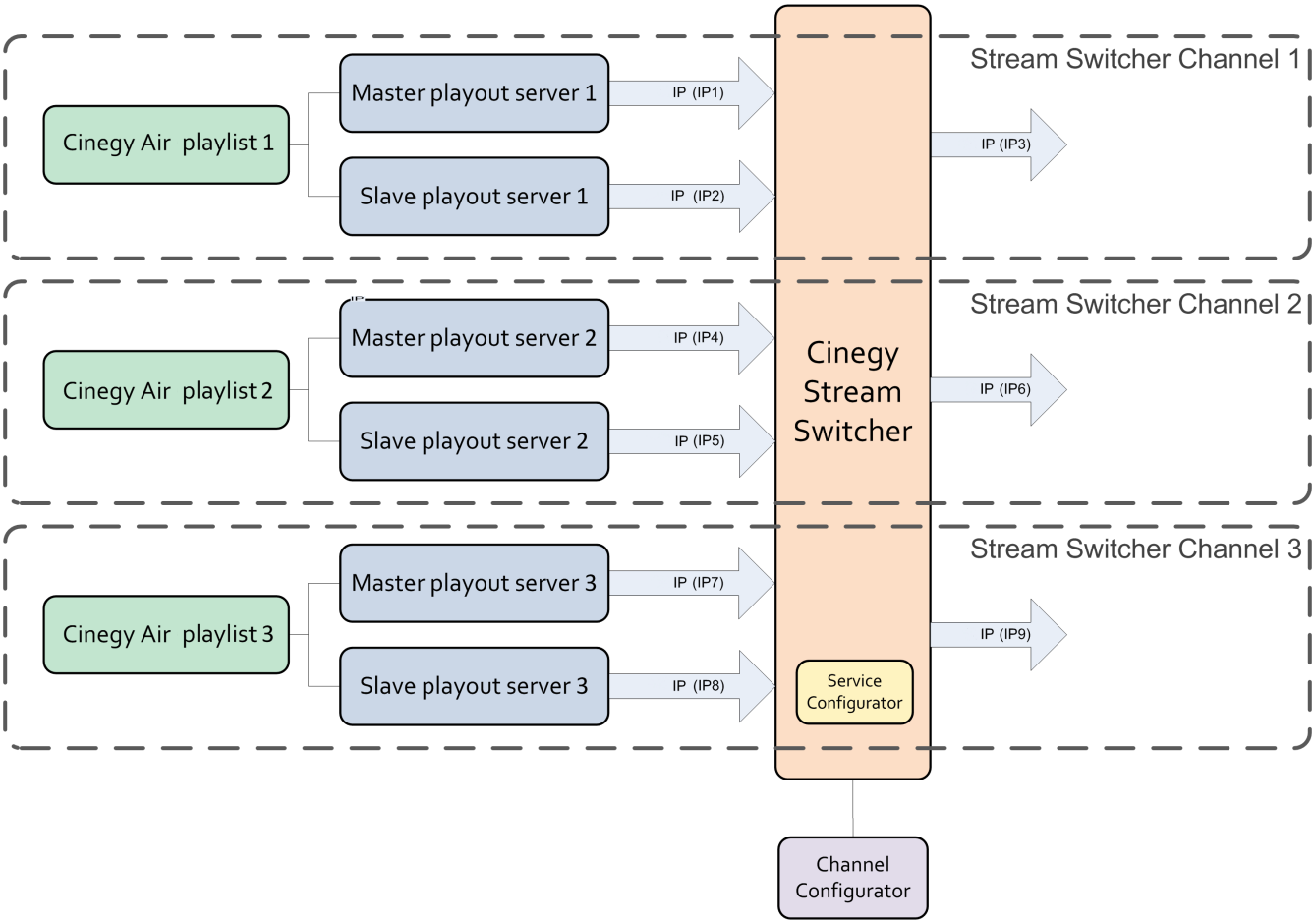
The Cinegy Stream Switcher service manages incoming RTP/UDP streams; therefore, it should be installed on a computer with access to the IP network.

The Cinegy Stream Switcher Control application connects to the Cinegy Stream Switcher service via the HTTP protocol and allows the user to manage and control the status of the streams. It can be installed on a separate computer that has access to the computer where the Cinegy Stream Switcher service is installed. The Cinegy Stream Switcher Control application does not require a physical connection to the RTP/UDP network. Alternatively, both components can also be installed on the same machine.

Workflow with Cinegy Air

One possible workflow for Cinegy Stream Switcher is to use Cinegy Air, where RTP/UDP streams from two playout servers are monitored.

The following diagram represents the general concept of Cinegy Stream Switcher operating with Cinegy Air configurations:



The Cinegy Air playlist is sent to two playout servers: master and slave. If there is a failure and the master playout server is disconnected, broadcasting will automatically be switched over to the slave playout server.

Refer to the **Cinegy Air Configuration Models** article in the **Cinegy Air Manual** for more information about the Cinegy Air setup.

1.2 Installation

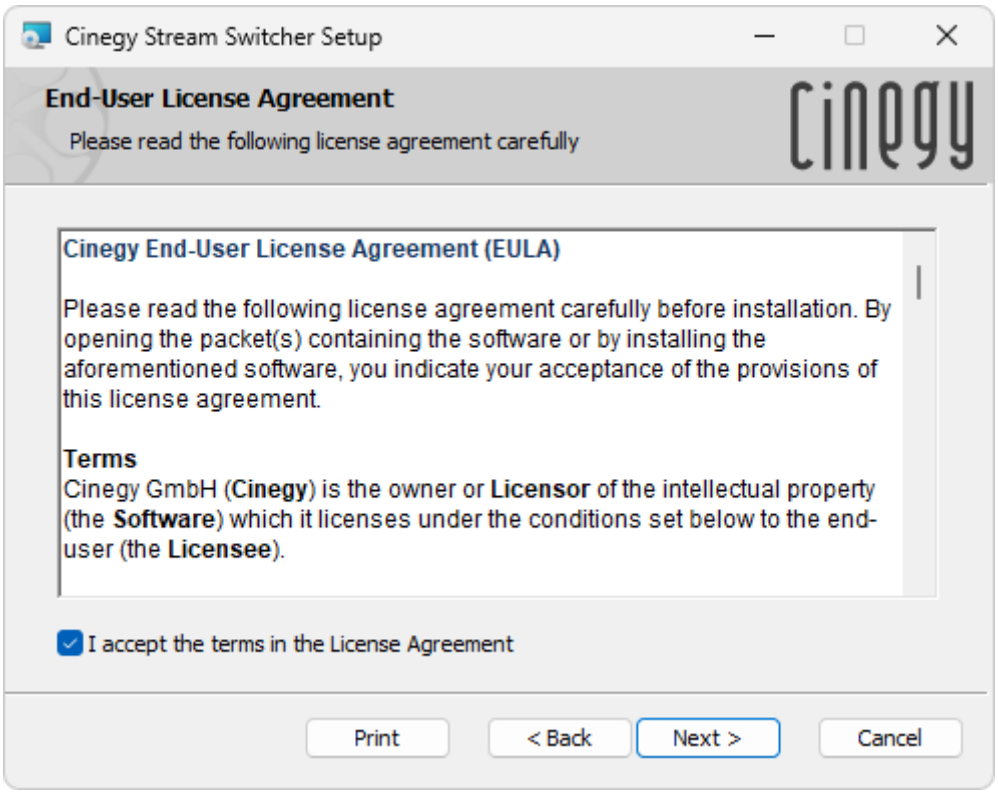
Installation

To start the Cinegy Stream Switcher installation, run the Setup.exe file from your installation package. The setup wizard will be started:



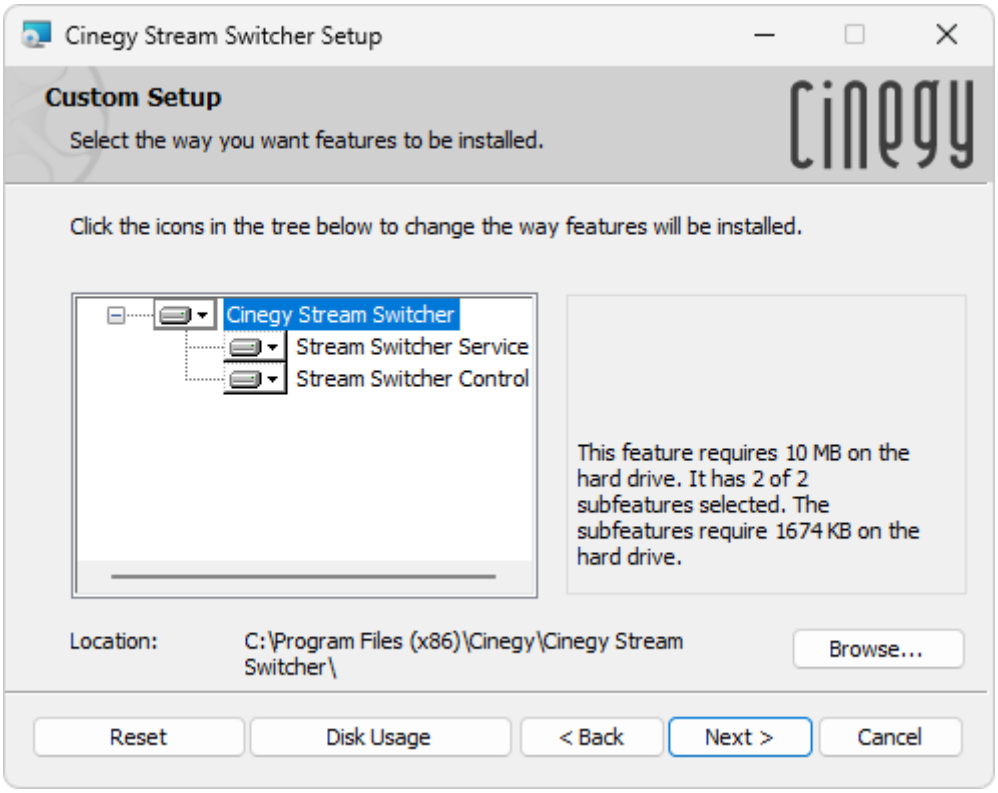
Press "Next" to proceed with installation or "Cancel" to abort and exit the setup wizard.

Read and accept the license agreement.



Press "Next" to proceed.

The following window appears:



Select the component(s) for installation:

- **Stream Switcher Service** – a service component that analyzes incoming streams.
- **Stream Switcher Control** – a control application for managing monitored channels.

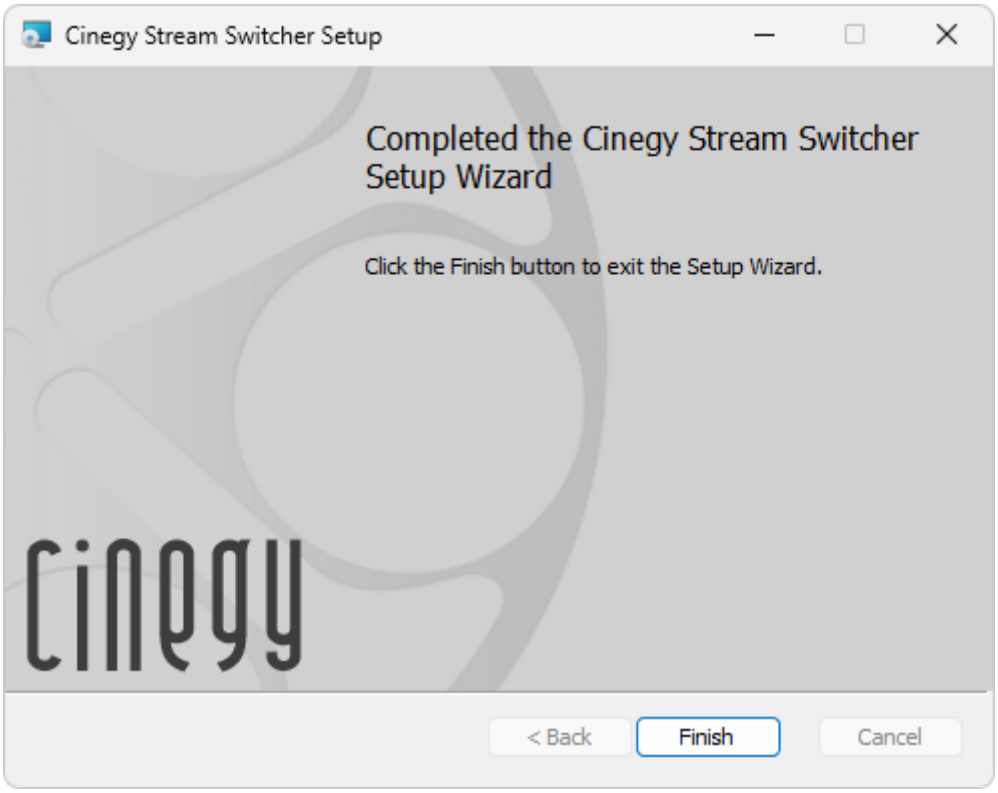
Press the "Browse" button to select the installation folder.

Press the "Next" button to begin the installation. A progress bar will display the progress of the installation process.

As a next step, the Cinegy Stream Switcher Configurator dialog will appear.

Cinegy Stream Switcher Configurator is launched automatically during the installation. You can specify the required settings immediately or press "Cancel" to do it later. Please refer to the **Configuration** paragraph for details concerning the Cinegy Stream Switcher configuration.

The following dialog will inform you that the installation is completed:



Press the "Finish" button to exit the setup wizard.

Licensing

Cinegy products support two licensing modes: hardware licenses (USB dongles) and software licenses (license key files). Both licensing modes can be used on a single machine simultaneously.

The **Cinegy License Service** is designed to control access to licensed Cinegy software using USB hardware dongles or software key files. It is required to provide Cinegy Stream Switcher access to the information stored in either the hardware dongle or the software key file.

The Cinegy License Service can be installed from the corresponding folder in your Cinegy Stream Switcher installation package. Follow the instructions of the installation wizard.

A separate license should be acquired for each monitored channel.

When using a hardware dongle, you need to connect it to the machine where Cinegy Stream Switcher is running. If the hardware dongle is not connected or no license is available on a detected dongle, or a corresponding software license is not found, Cinegy Stream Switcher will stop switching channels and will not send notifications.

Chapter 2 Configuration and Operation

2.1 Cinegy Stream Switcher Service

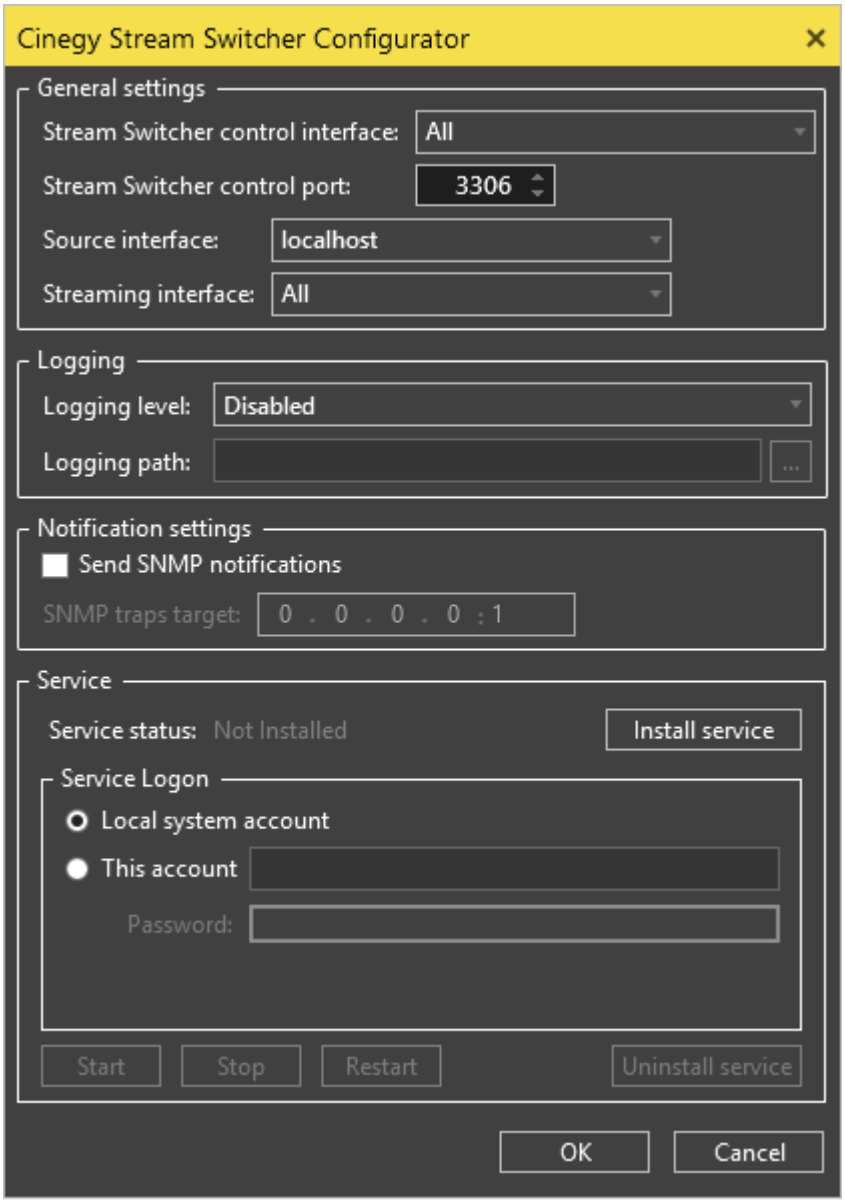
The Cinegy Stream Switcher service manages incoming RTP and UDP streams; therefore, it should be installed on a computer with access to the IP network.

Configuration



First of all, Cinegy Stream Switcher should be configured using the Cinegy Stream Switcher Configurator. To launch it, go to *Start > Cinegy > Stream Switcher Configuration Tool* or use the corresponding shortcut on your desktop.

The following configuration window will open:



General Settings

In the "General settings" group, define the following settings of the controlled interfaces:

- **Stream Switcher control interface** – use the drop-down list to define the IP address of the network adapter listening to the Cinegy Stream Switcher server. Select the "All" option to listen to all available network adapters.
- **Stream Switcher control port** – define the Cinegy Stream Switcher server port.

> The IP address and port are used by the Cinegy Stream Switcher Control application to manage the Cinegy Stream Switcher service.

- **Source interface** – use the drop-down list to select the IP address of the network adapter receiving the RTP/UDP stream (e.g., Cinegy Playout server).
- **Streaming interface** – select the IP address of the network adapter performing streaming of the outgoing signal from the drop-down list. Selecting the "All" option allows streaming to all available network adapters.

Logging Settings

The Cinegy Stream Switcher logging parameters are defined in the "Logging" group of the configurator. Define the following logging parameters:

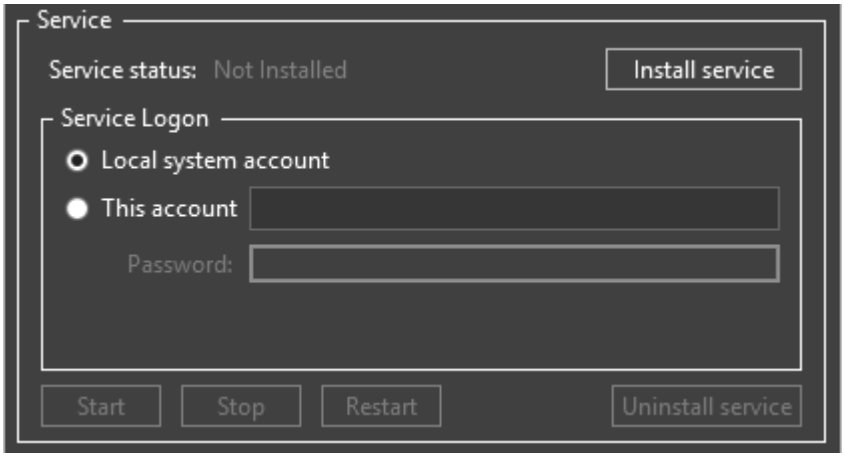
- **Logging level** – use the drop-down list to select one of the following available log levels, depending on the desired logging details:
  - **Disabled** – no logging.
  - **Errors** – only unexpected events in the application flow, like errors, exceptions, or conditions that do not cause the application to crash.
  - **Warnings, Errors** – critical information, errors, warnings.
  - **Notifications, Warnings, Errors** – notifications of troubles such as license loss or unexpected shutdown.
  - **All Logs** – the entire range of events in the general application flow.
- **Logging path** – define the destination folder for storing log files. You can enter a path via the keyboard or use the  button to select the required folder.

Notification Settings

Along with logs, Cinegy Stream Switcher can send SNMP traps. For this, activate the "Send SNMP notifications" option in the "Notification settings" group and define the SNMP traps target IP and port.

Service

The Cinegy Stream Switcher service performs incoming analysis of streams.



In the "Service Logon" settings section, you can specify the account under which the service logs on. You can use the local system account or a specific account with sufficient permissions (including the "log on as a service" privilege). Using an account without sufficient permissions or rights will cause outright failure or faults, which will be tracked in the diagnostic logs. You need to enter the login name and password for this specific account in the corresponding fields.

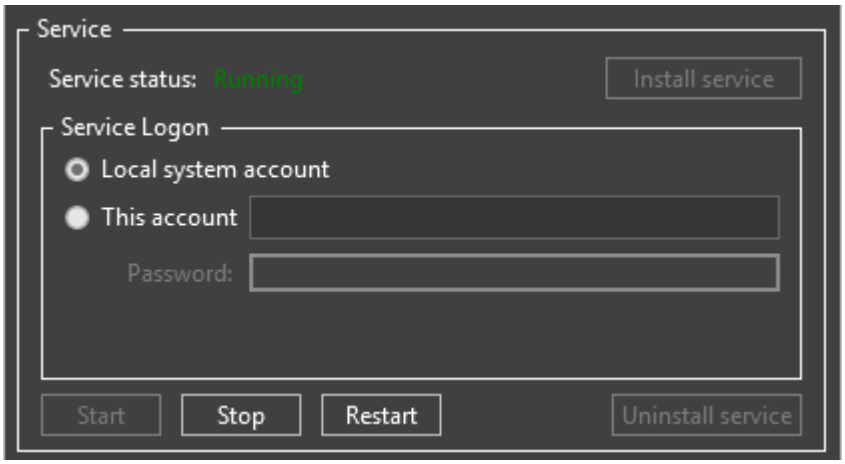


The service logon changes will be applied only after the service restart.

The "Service Status" field indicates whether the Cinegy Stream Switcher service is installed, running, or stopped.

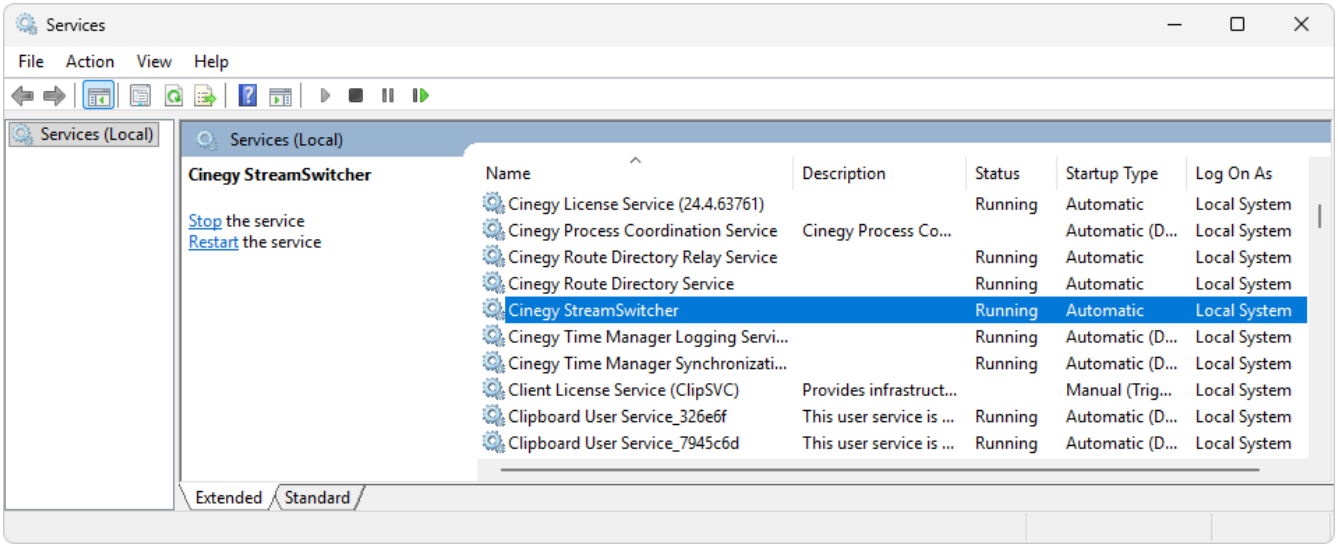
Install service — Press the "Install" button to install the Cinegy Stream Switcher service as a Windows service.

Start — Once the service is installed, it should be started manually by pressing the "Start" button.



The service can be stopped, restarted, or uninstalled by pressing the corresponding buttons.

The service can also be managed as a standard Windows service:



Having configured all the necessary settings and started the Cinegy Stream Switcher service, you can proceed to configure monitored channels using the Cinegy Stream Switcher Control application.

2.2 Cinegy Stream Switcher Control

The Cinegy Stream Switcher Control application connects to the Cinegy Stream Switcher service via the HTTP protocol and allows the user to manage and control the status of the streams. Both components can be installed on the same machine. Otherwise, Cinegy Stream Switcher Control requires access to the computer running the Cinegy Stream Switcher service but

does not require a physical connection to the IP network.

Cinegy Stream Switcher channel represents a configuration of two stream source servers (main and backup) to receive RTP/UDP streams and one output server performing the broadcast of a stream. In case of the main source server failure, the broadcast is switched to the backup server. Switching to the backup source server is performed according to the specified alerts settings.

Configuration



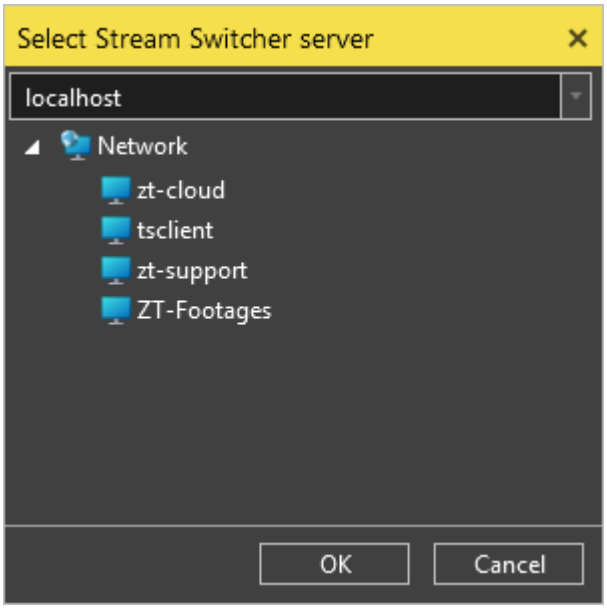
To launch this application, go to *Start* > *Cinegy* > *Stream Switcher Control* or use the corresponding desktop shortcut. The following window will open:



Here define the following settings:

- **Stream Switcher server** – the computer where the Cinegy Stream Switcher service is installed. You can connect to localhost if the service is installed on your local computer, or enter the IP address or the network name of the server in case it is being used remotely. You can use the 

button to select the server from the list of available computers in the network:

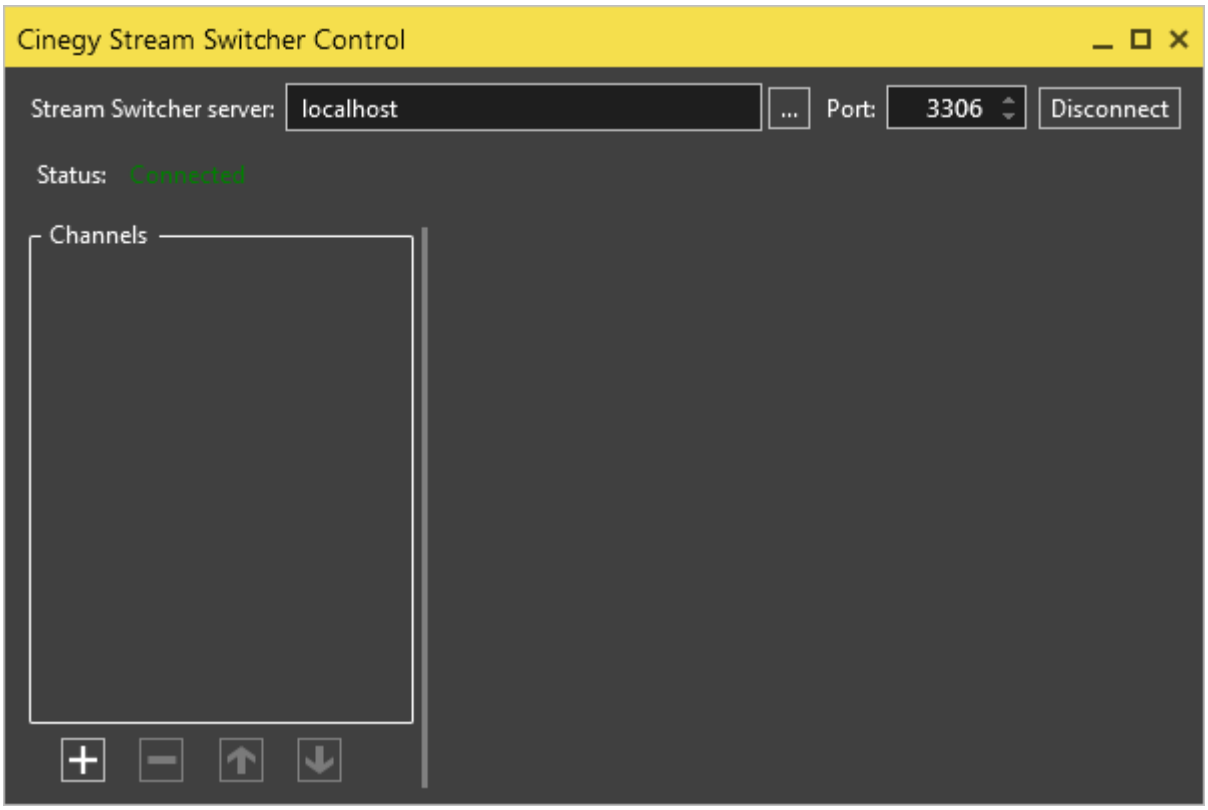


- **Port** – define the Cinegy Stream Switcher control port.

> This value should be equal to the "Stream Switcher Control port" value set in the Cinegy Stream Switcher Configurator. Otherwise, the connection will not be established.

Connect

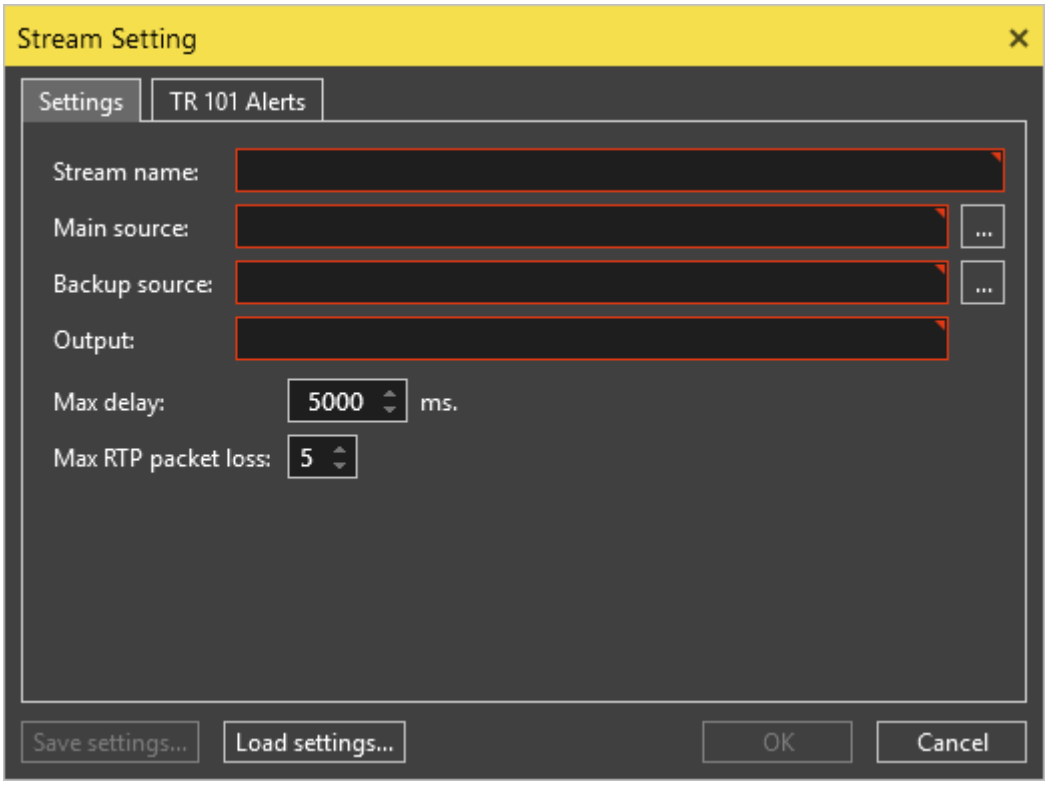
Press the "Connect" button to start the connection to the Cinegy Stream Switcher service. Once connected, it looks like this:



The connection status is shown in the "Status" field.

Stream Settings

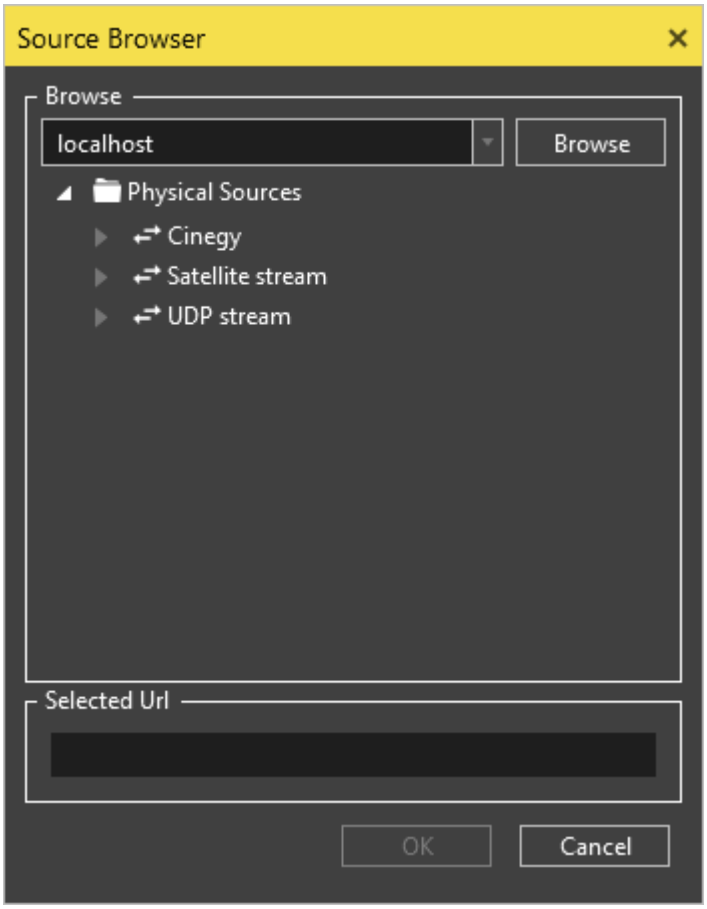
To add a new channel to the list, press the + button; the following "Stream Settings" window will be opened:



Incorrectly filled-in or empty fields are highlighted with a red bounding box. Hovering the mouse pointer over such a field displays a tooltip describing the problem. The settings cannot be applied unless all values are valid.

Here define the following settings:

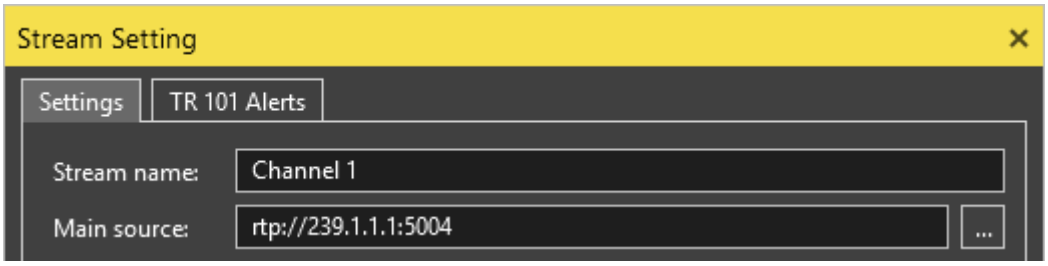
- **Stream name** – specify the channel name.
- **Main source** – define the RTP or UDP URL for the source stream from the main source server. To do this, either use the keyboard or press the ... button to select a video stream registered on the specified server by the Cinegy Route Directory Service using the integrated Cinegy Route browser that appears:



Use of the integrated Cinegy Route browser requires Cinegy Route Browser v15 and above installed and available on the machine running Cinegy Stream Switcher Control.

Only streams marked as "Visible" for the current user will be available for browsing.

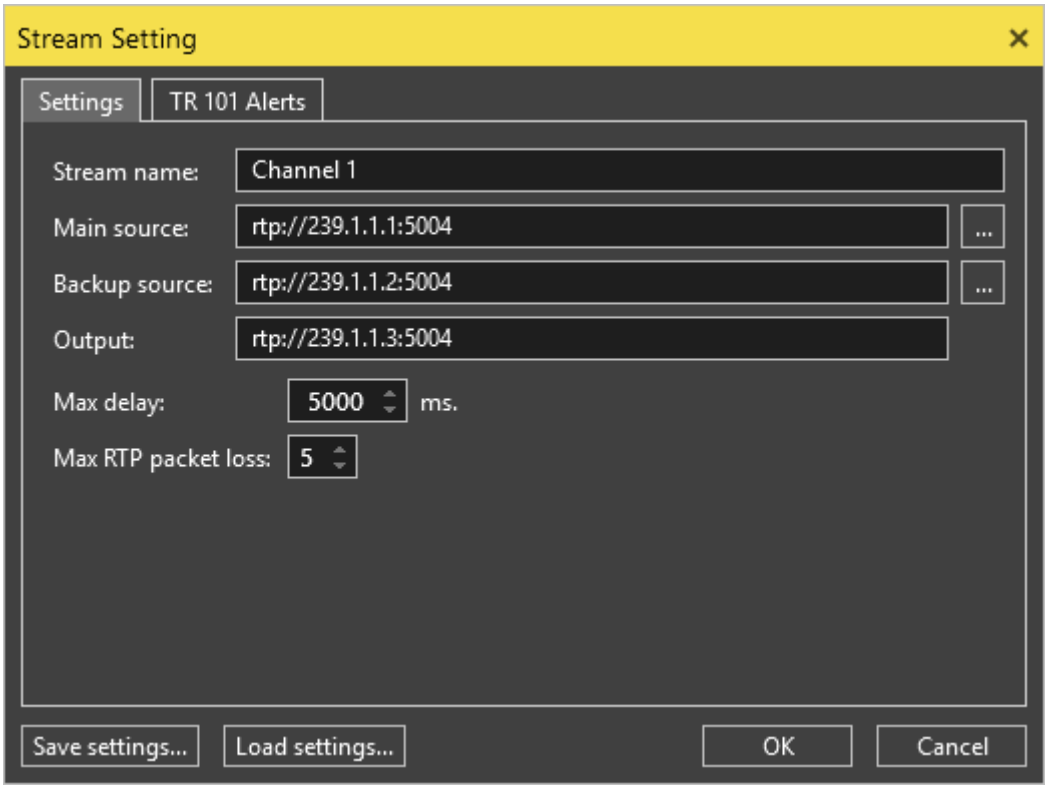
Select the required video stream and press "OK". It will be automatically converted to RTP/UDP URL:



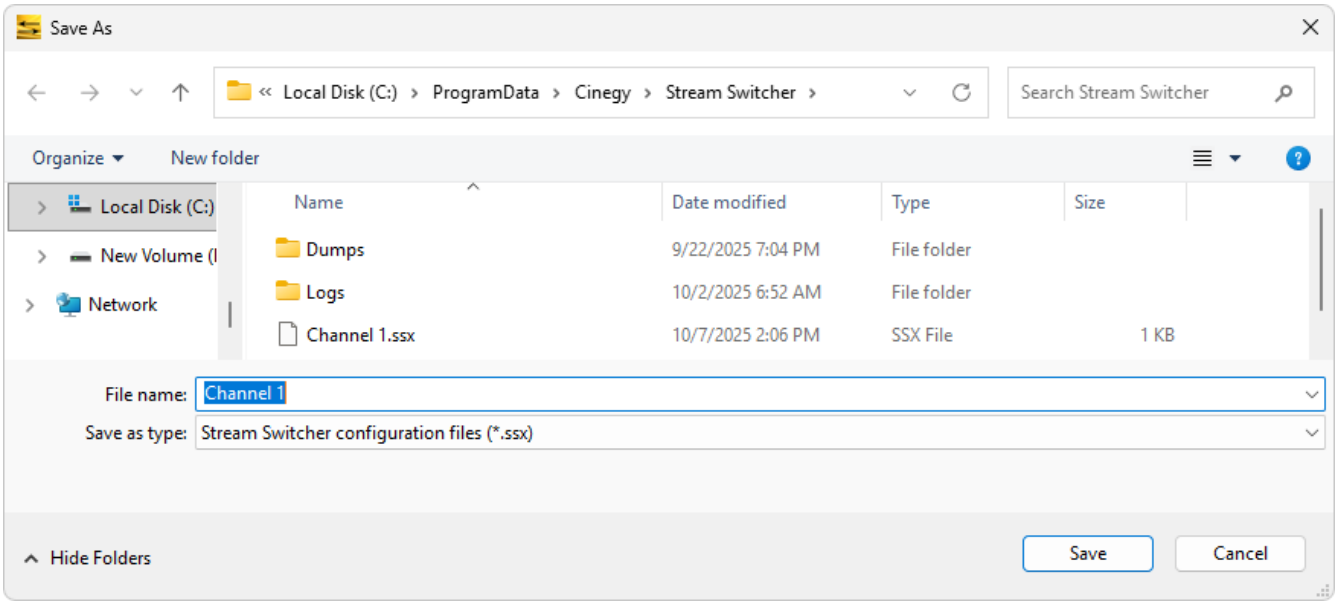
Refer to the **RTP/UDP/SRT URL Format** article for more information about the IP video URL format.

- **Backup source** – define the source stream from the backup source server in the same way as you did for the main source.
- **Output** – specify the output stream.
- **Max delay** – define the maximum delay time of RTP/UDP packets in milliseconds. If the actual delay of packets exceeds this value, the stream is considered to be absent.
- **Max RTP packet loss** – define the maximum number of missing RTP packets allowed per stream.

Having configured the necessary parameters, the window will look as follows:



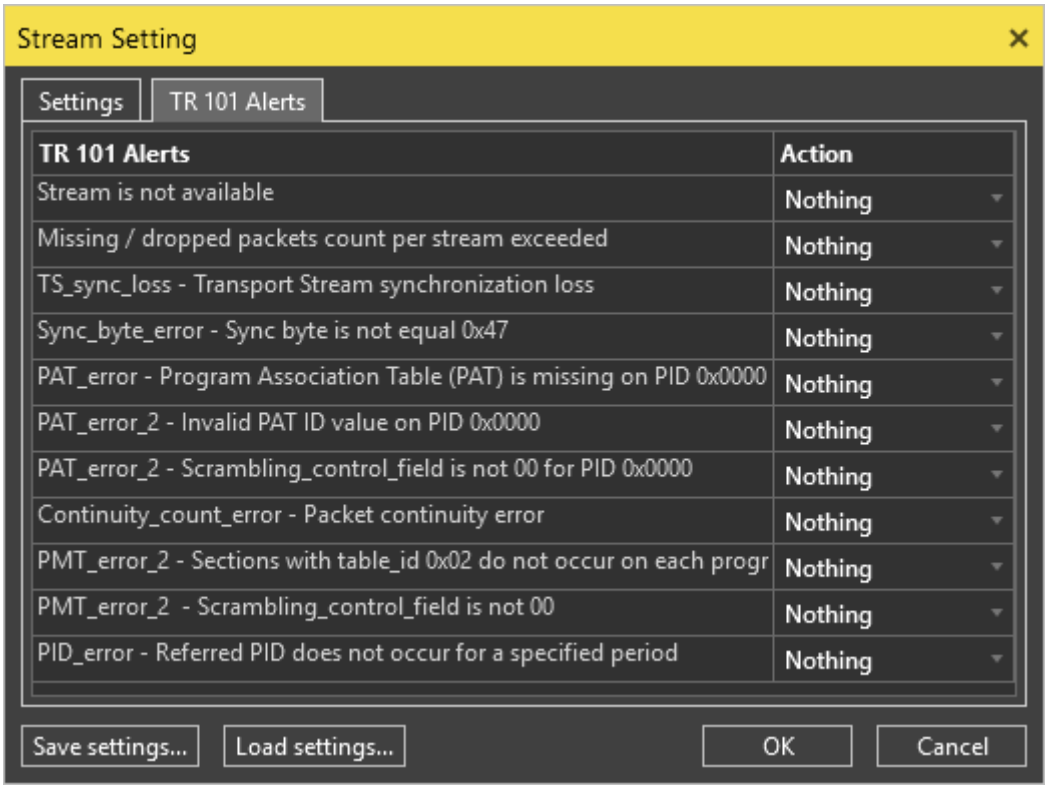
Save settings... Press the "Save settings" button to save the configured settings in .SSX file format for future use:



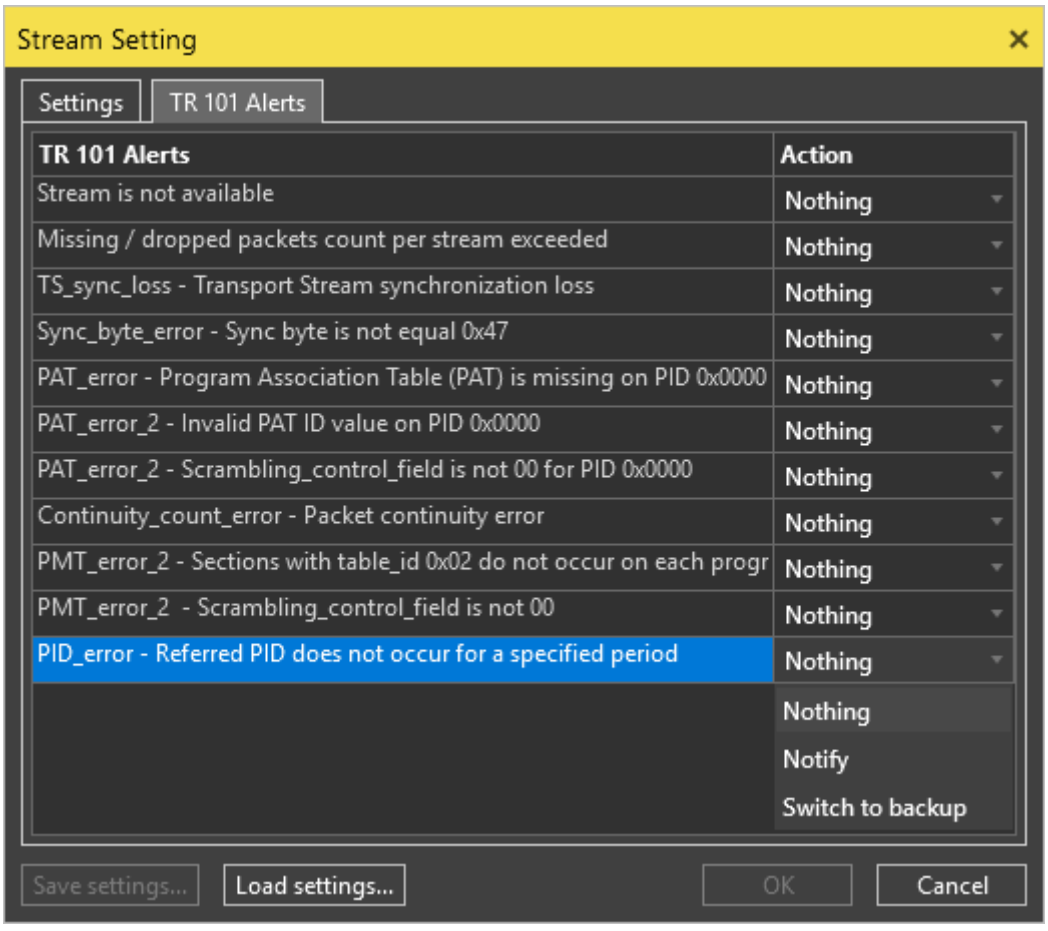
Load settings... Press the "Load settings" button to load the previously saved configuration.

TR 101 Alerts

In the "TR 101 Alerts" tab, a user can define the actions to be taken in the event of certain problems with the stream, defined and assessed in accordance with the standard ETSI TR 101 290:



In the "Alert" column, select the desired alert, and in the corresponding "Action" drop-down list, select the action that will be performed:

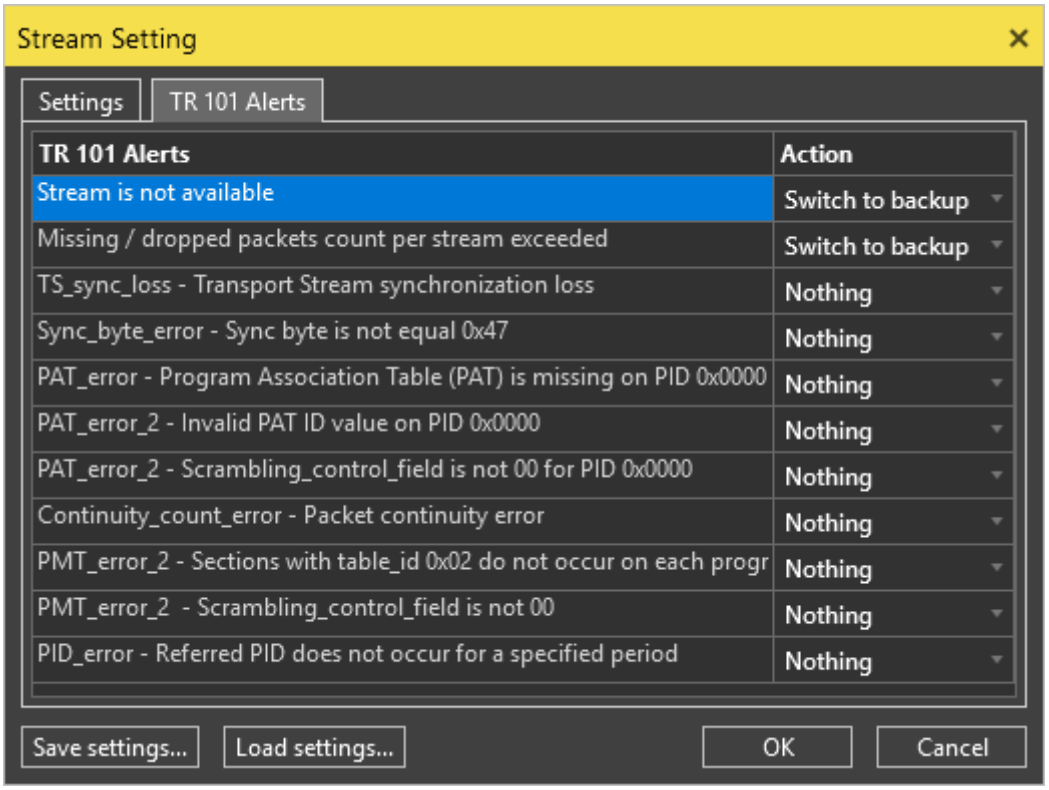


The following actions are possible:

- **Nothing** – no action is performed.

- **Notify** – the SNMP trap is sent to the preconfigured destination.
- **Switch to backup** – the stream is switched from the main to the backup source server.

The most common configuration is as follows:



Switching to the backup source is performed in case of stream absence and when the number of missing/dropped packets per stream is exceeded. The boundary parameters for these two alerts are set up in the "Settings" tab. The other alerts are Digital Video Broadcasting (DVB) tables data-specific, and can be configured according to your needs.

	Please refer to the Digital Video Broadcasting (DVB) standard definition for details about DVB parameters.

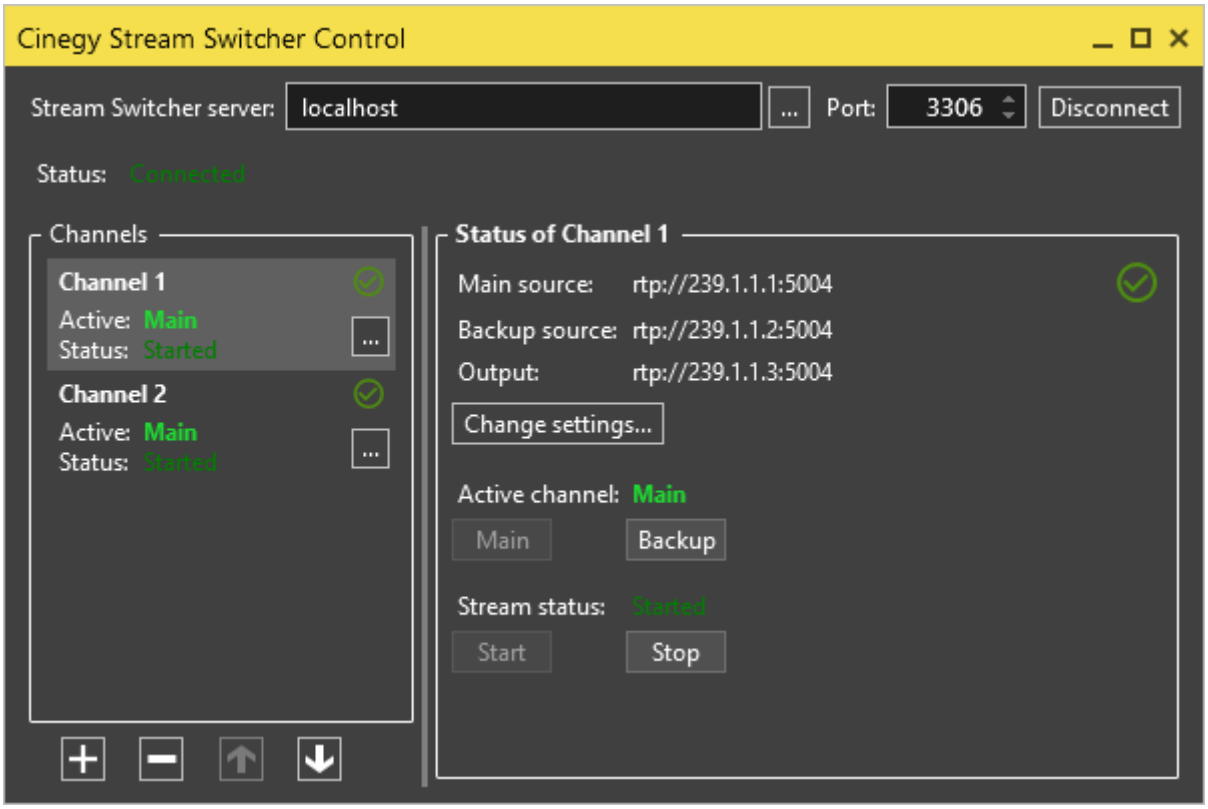
Having configured all the necessary settings, press the "OK" button. The settings will be applied, and the configured channel appears in the "Channels" list.

Operating

This paragraph describes how to work with the Cinegy Stream Switcher channels.

Channels List

The configured Cinegy Stream Switcher Control shows the status of the channels and allows you to manually switch and start/stop the source streams broadcast.



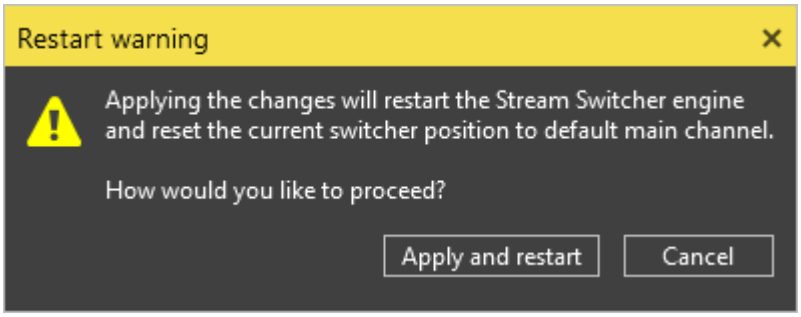
 To add a channel from the list, use the "Plus" button.

 To remove a channel from the list, use the "Minus" button.

 To change the order of channels in the list, use the "Up" or "Down" arrow buttons.

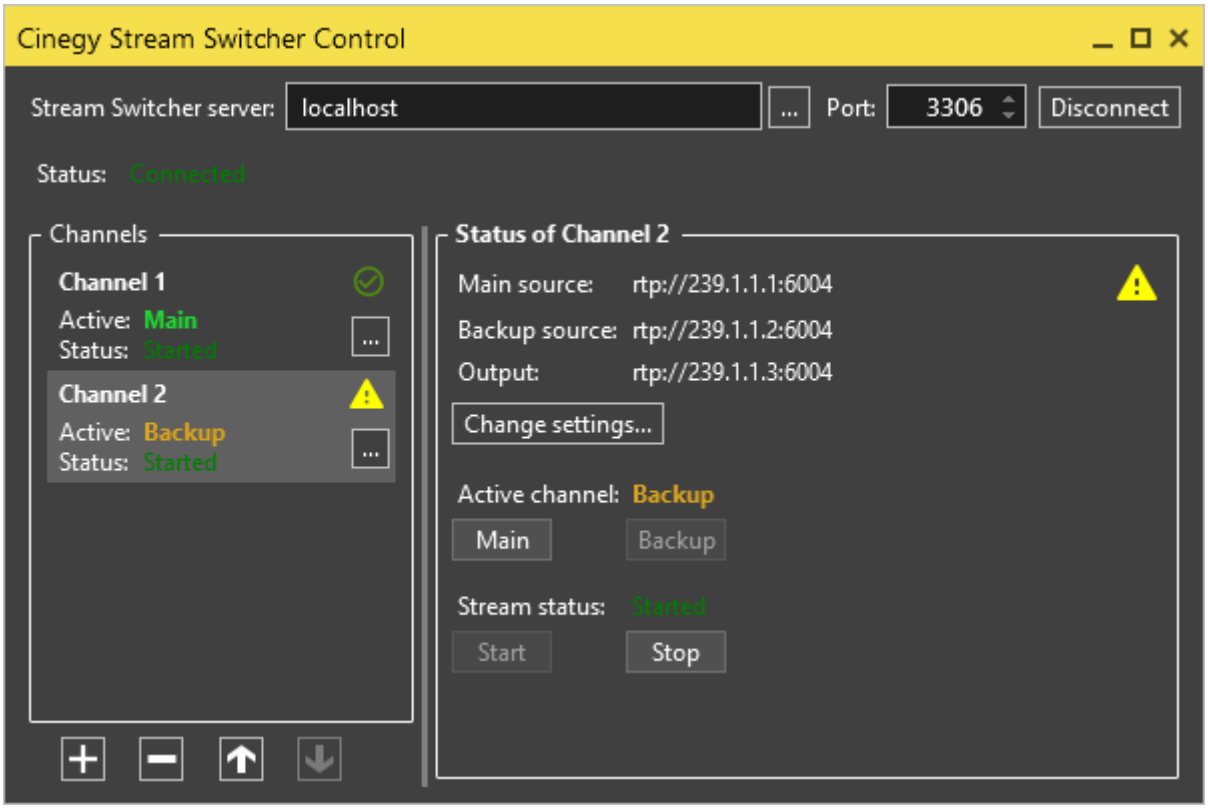
Select the desired channel in the "Channels" list; its configuration and status will be displayed in the "Status" panel. The ✓ sign indicates that the broadcast of the stream is on air.

To change the channel settings, use the ... button for the corresponding channel from the list or use the Change settings... button on the "Status" panel. Applying the changes will restart the Stream Switcher engine and reset the current switcher position to the default main channel. You will be prompted to confirm your intention to restart the engine with the appropriate message:



Switching to Backup Source

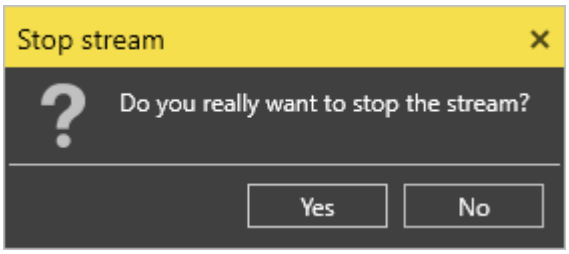
The "Active channel" field shows the currently active playout server: main or backup. In case of stream loss, the transmission will be automatically switched to the backup server. The ⚠ sign indicates that there are problems with the main source and that the backup source is now active:



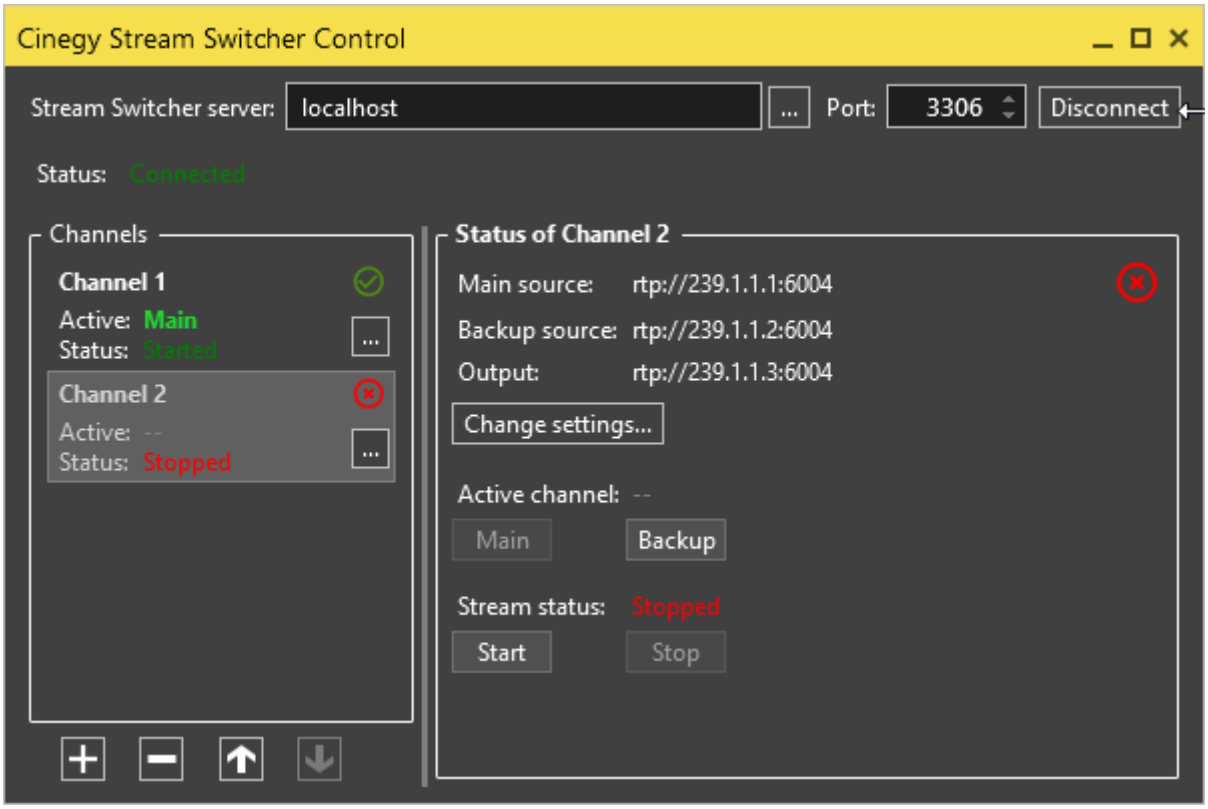
To manually switch to the backup source, press the "Backup" button.

Stream Status

The "Stream status" field shows whether the stream broadcast is started or stopped. To manually stop the broadcast of the stream, use the "Stop" button. You will be prompted to confirm your intention to stop the stream broadcast with the corresponding message:



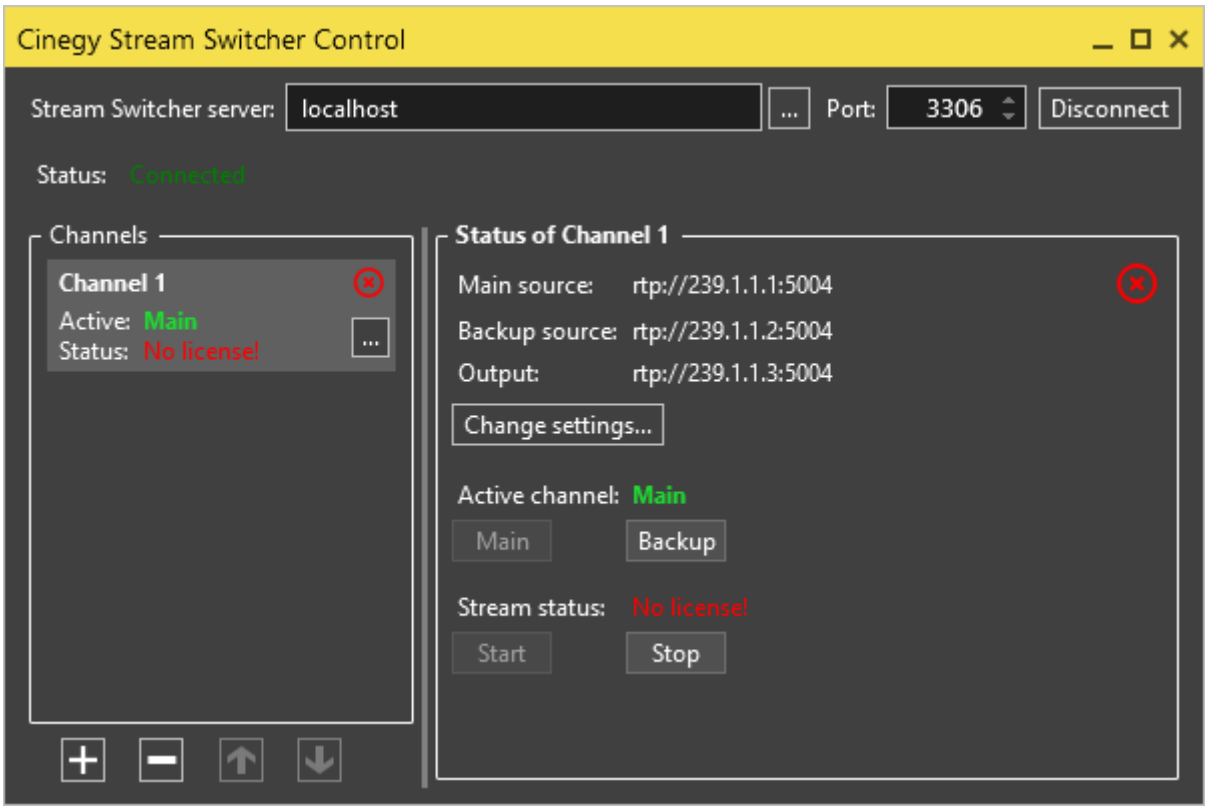
The ⊗ sign indicates that the broadcast of the stream is stopped:



Use the "Start" button to manually start the stream broadcast.

License Error

If no software license key file is available or a license file on a detected hardware dongle is not found, or the dongle is not connected, the "Stream status" field will indicate that no license is available.



Refer to the **Licensing** paragraph for information on Cinegy Stream Switcher licensing.