streamstar

STREAMSTAR
PRODUCTION SOFTWARE
OPERATING MANUAL

July 2015

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TOOLS FOR THE NEW GENERATION OF STREAMING MEDIA PRODUCERS

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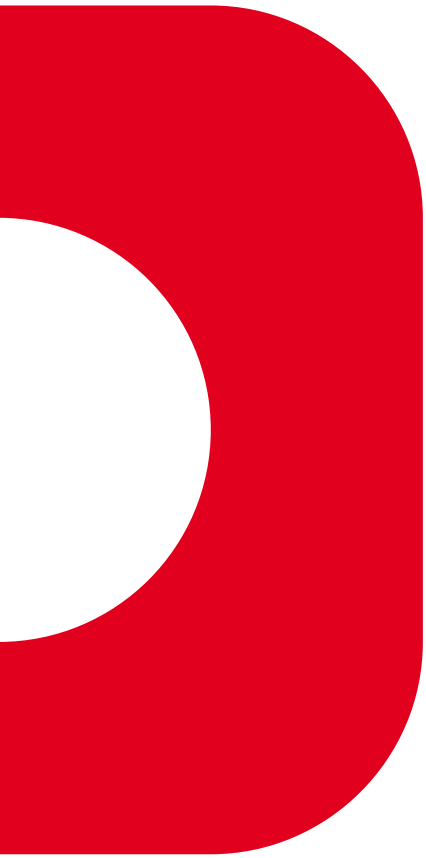

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WELCOME

Congratulations on the purchase of the Streamstar Live Production Studio application.

About Streamstar

Streamstar is a company offering technology solutions and products for the streaming industry.
Dedicated to innovation Streamstar delivers professional tools for the new generation of streaming video producers.

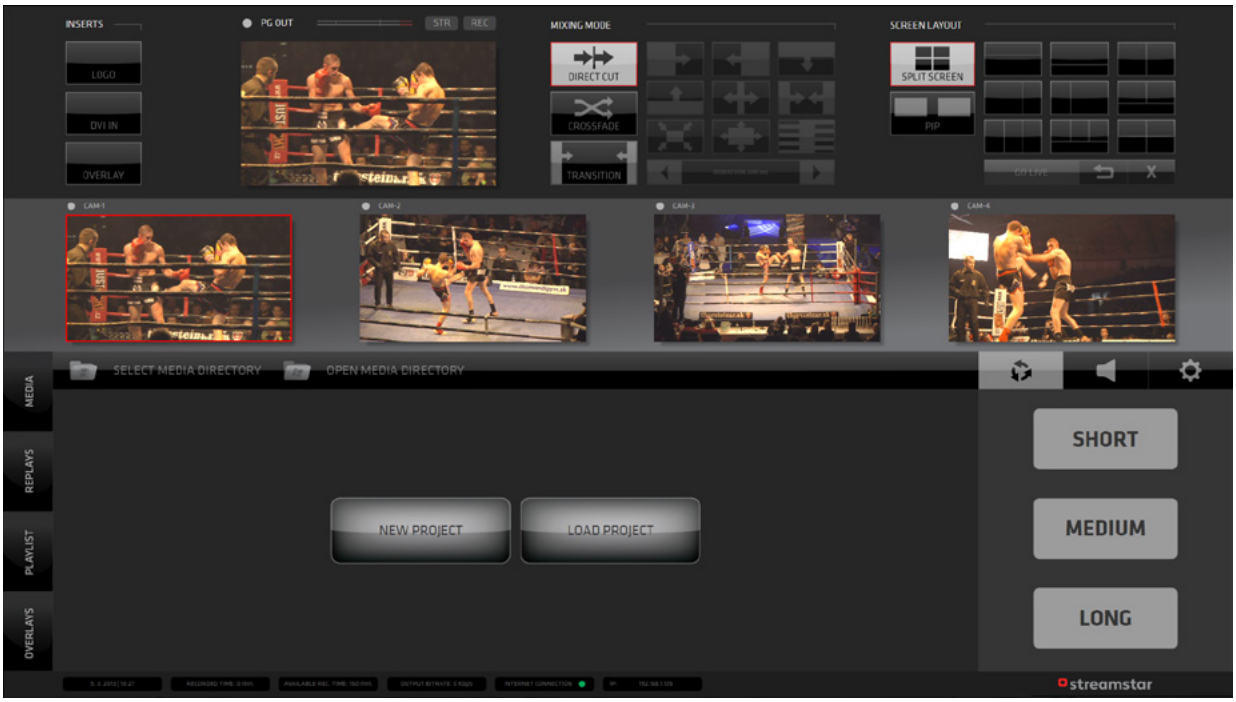
Our products range consists of:
- Streamstar SW - live production studio software
- Streamstar KITs - software + caprure cards packages
- Streamstar CASE - portable live production systems

Streamstar SW - Live Production Studio Software

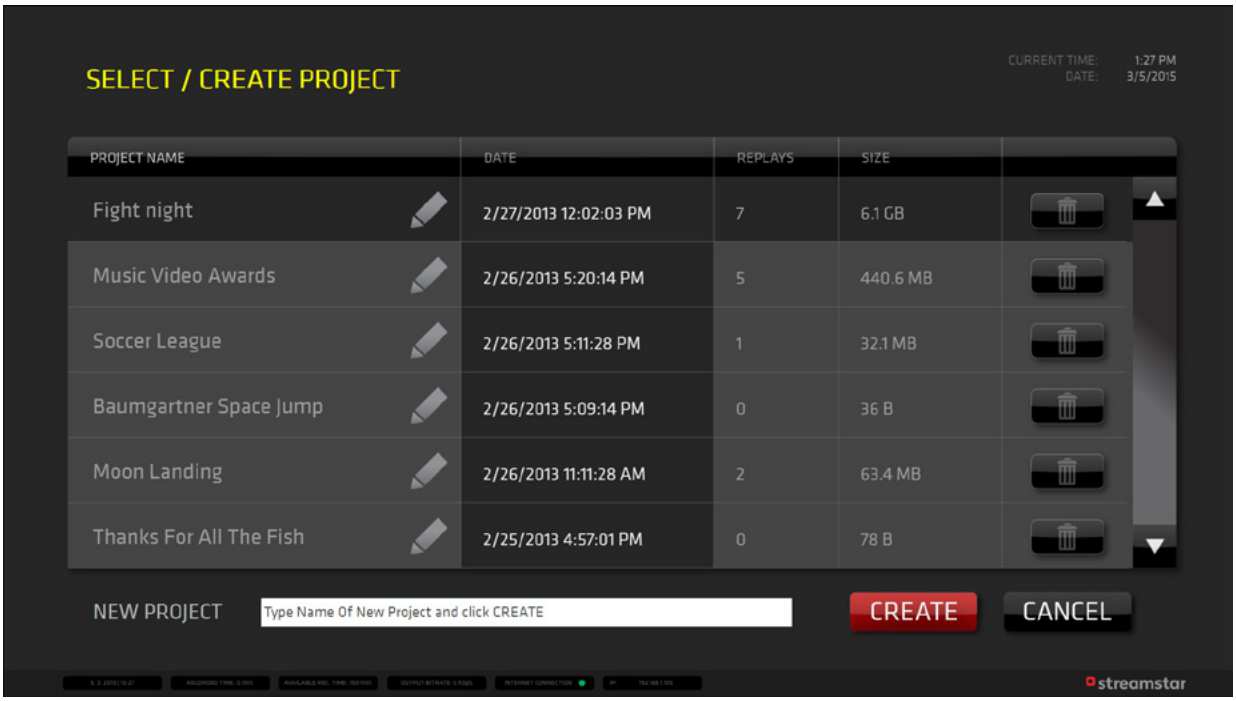
The most advanced, live production software in existence. Conceptually ground breaking, technologically state of the art, extremely efficient yet easy to use and flexible.
Its intuitive, highly effective touch screen user interface, tried and tested in the real world, is streamlined for live production. It is the ideal system for the new geration of streaming media professionals.

SYSTEM STARTUP

Start the application in a normal Windows OS usual way. The software GUI appears. Choose either to load a saved project or to create a new one.



Tap/click NEW PROJECT - a new project is created and you can start working immediatelly.
Tap/click LOAD PROJECT - a dialog screen appears that allows you to select from a list of previously saved projects with all settings preserved. In this dialog you also can edit the names of projects by tap/click the “pencil” icon besides the name of a project as well as delete projects.



GUI - Graphical User Interface

The Production Software is operated via an innovative, touch screen user interface – perfectly tuned for the live streaming production.

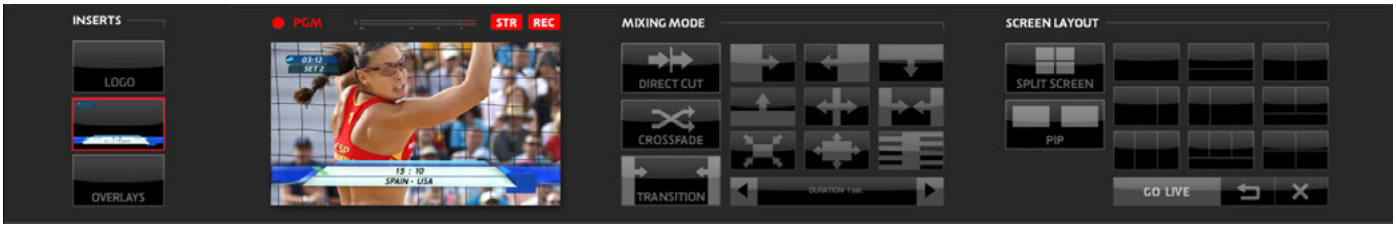
It was designed to fulfill all the requirements of a live streaming production in the easiest, most efficient and user friendly way, to allow a high level of sophistication, creative freedom, operational flexibility while maintaining a perfect control of every aspect of the production at all times.

Thousands of hours of real live production experiences were combined with the possibilities of the technologically most advanced system and the result is a superior, extremely powerful yet very intuitive and user friendly, modern interface. Anyone who can operate an iPhone can operate it within seconds.

The GUI is designed to support the operation, processes and workflows in the most logical and practical way. The GUI layout is divided into 3 horizontal sections containing distinctive logically related operational elements and functions.

On the top is the PRODUCTION/LAYOUT section, below is the CAMERA/SWITCHING section and at the bottom is the CONTENT MANAGEMENT/SETTINGS section.
At the very bottom of the screen is an additional information readout bar displaying some helpful info about the status of the system.

I. PRODUCTION LAYOUT Section



This section contains all the important functionality controls for the creation of the look, layout and ovarall appearance of your production and the behavior of the software functions.

It is divided horozontally into 4 sub sections:
1. INSERTS
2. PROGRAM OUT
3. MIXING MODES
4. SCREEN LAYOUT

I. 1. INSERTS:

contains three on/off switches for video layers on top of the camera layer

LOGO	on/of switch for the LOGO video layer (for detailed description go to the SETTINGS/INSERTS section)
OVERLAYS	on/of switch for the OVERLAYS video layer (for detailed description go to the SETTINGS/INSERTSsection)
HDMI/DVI IN	on/off switch for the DVI IN input layer (for detailed description go to the SETTINGS/INSERTS section)

I. 2. PGM OUT:

contains a video player to view the PGM OUT output from the system, Audio level indicators and Streaming and Recording indicators.

I. 3. MIXING MODES:

contains three switches to select automated switching modes with their respective functionality controls.

DIRECT CUT - ebables a direct cut between sources
CROSSFADE - enables a crossfade transition
The duration can be adjusted by the Duration Adjustment Bar at the bottom of this panel.
TRANSITION - enables a wipe transition
There are 9 presets of the most commonly used wipes. Select the TRANSITION MIXING MODE, select a type of wipe you wish to use, adjust its duration by the Duration Adjustment Bar. Cuts will now be executed using the selected wipe and its duration.

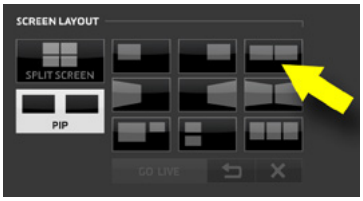
I. 4. SCREEN LAYOUT

Contains 3 switches to enable the respective functionality for the control of the screen layout and appearance of the production.
It contains switches for SPLIT SCREEN, PICTURE IN PICTURE and TEXT insertion.
(Please note that the text insertion feature will be available in the Q3 of 2015 software update)

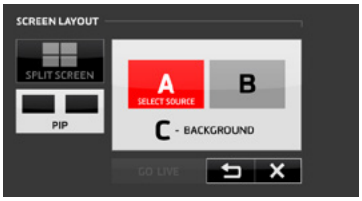
SPLIT SCREEN
enables the split screen layout functionality
Procedure to use:
1. select the SPLIT SCREEN layout switch.
2. select one of the 9 presets/templates available.
3. select the sources/content for the individual split screens as the software prompts.... A... B... C... (depending on the number of split screen areas in the selected preset)
4. when all split screen areas are populated a red button GO LIVE at the bottom of the pane appears.
5. touch/click GO LIVE to cut the SPLIT SCREEN layout to live.

The procedure is in principle the same as the one for the PIP setup, described in detail below.

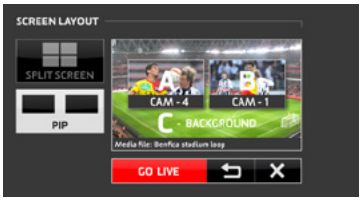
PICTURE IN PICTURE
enables the PIP screen layout functionality
Procedure to use:
1. select the PIP layout switch.
2. select one of the 9 preset templates available. The preset/template enlarges.
3. select the sources/content for the individual split screens - the software prompts you to touch/click the source for the area A, next touch/click the source for B... C... and so on depending on the number of PIP screen areas in the selected preset/template
4. when all PIP screen areas are populated a red button GO LIVE at the bottom of the pane becomes active.
5. touch/click GO LIVE GO LIVE to cut the SPLIT SCREEN layout to PG OUT.
6. touch/click BACKSPACE ⮌ to go back a step, press twice to go back two steps ...
7. touch/click CANCEL ✕ to abandon the PIP setup.



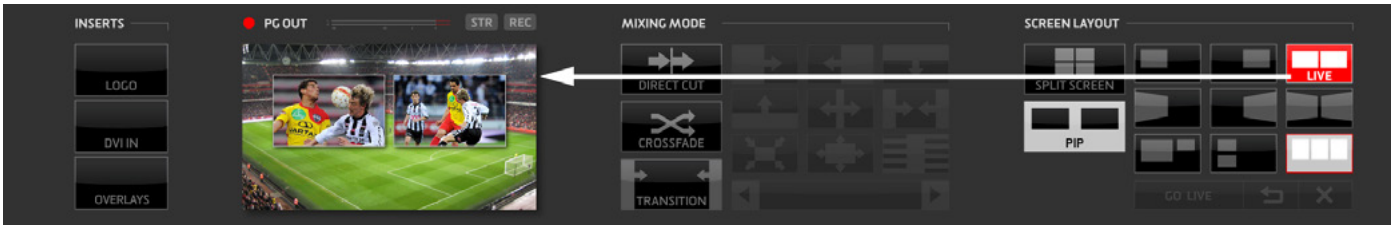
Select PIP preset/template



Prompt to select a PIP source for area A ...than B and C...

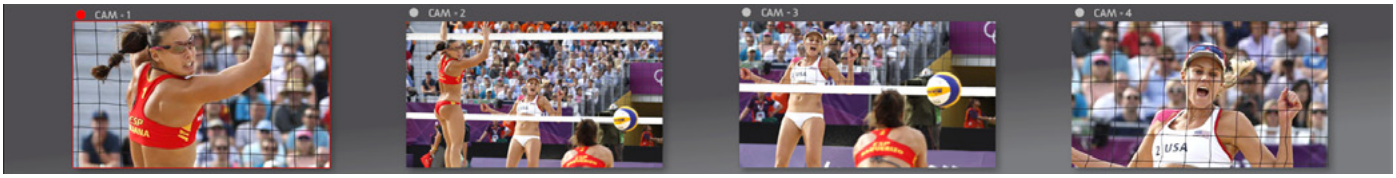


When all PIP areas are populated press GO LIVE to cut to PG OUT



The used PIP template is highlited red when in PG OUT. When not in PG OUT it will remain populated with the selected sources for repeated use and highlited gray. It can be re-assigned with new sources. To reassign new sources select the template, tap the area to be assigned a new source and select a new source.

II. CAMERA SWITCHING Section



This section contains live previews of all 4 camera inputs, which also function as switches.
Switching between cameras is done by simply tapping or clicking the camera preview area.
The cut is executed according to the type of MIXING MODE currently selected.
The camera currently cut in Live Out is indicated by the red outline of it's preview.
If there is no camera connected to the SDI video input a NO SIGNAL icon will be displayed in the preview.

III. CONTENT MANAGEMENT and SETTINGS Section

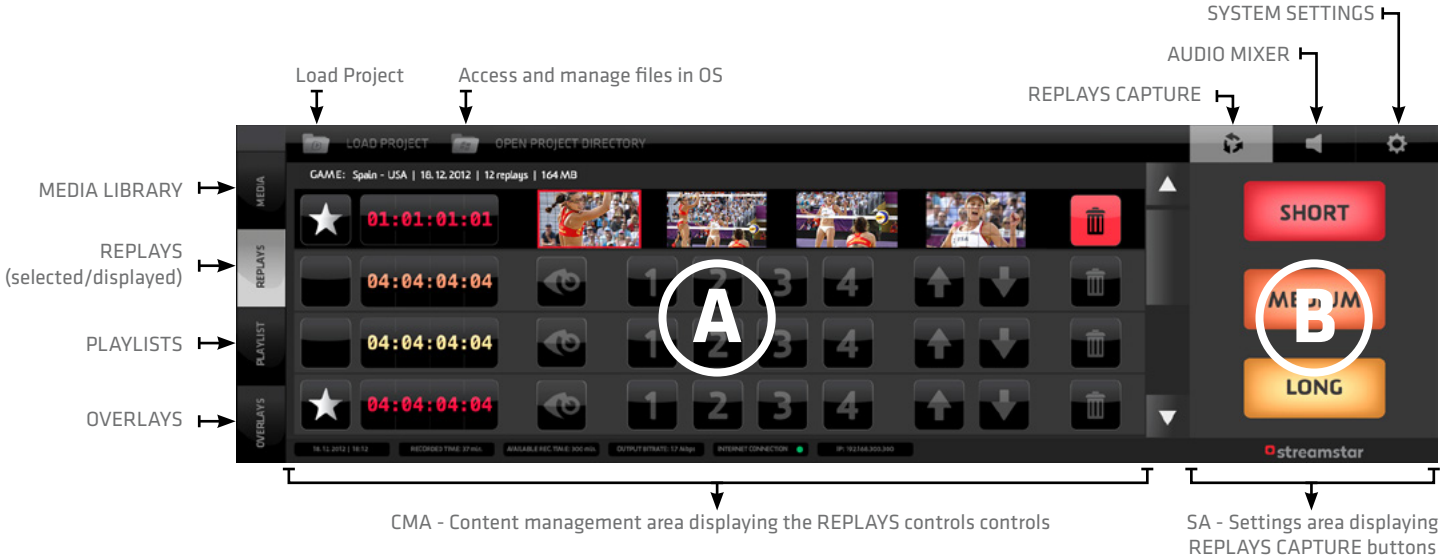
This section contains all the control elements of the many functionalities used in production.
Its display changes accordind to what is selected and allows for great operational flexibity and speed.

This section of the GUI is subdivided into two major sections:
A - the **CONTENT MANAGEMENT AREA (CMA)** *(marked with letter A in white circle)*
B - the **SETTINGS AREA (SA)** *(marked with letter B in white circle)*

The **CMA** (Content Management Area) has **4 TABS on the left** that reveal the operational controls for the **MEDIA LIBRARY**, **REPLAYS & SLOW MOTION PLAYBACK**, **PLAYLIST** and **OVERLAYS** controls.

The **SA** (Settings Area) has **3 TABS on the top** that trigger the display of the **REPLAYS CAPTURE** buttons, the **AUDIO MIXER** and the **SETTINGS BUTTONS**.

The image below shows selected REPLAYS controls in CMA and REPLAY CAPTURE BUTTONS in the SA.



The next image shows the AUDIO MIXER controls in CMA and REPLAY CAPTURE BUTTONS in the SA.

CMA - Content management area displaying the AUDIO MIXER

SA - Settings area displaying SETTINGS BUTTONS

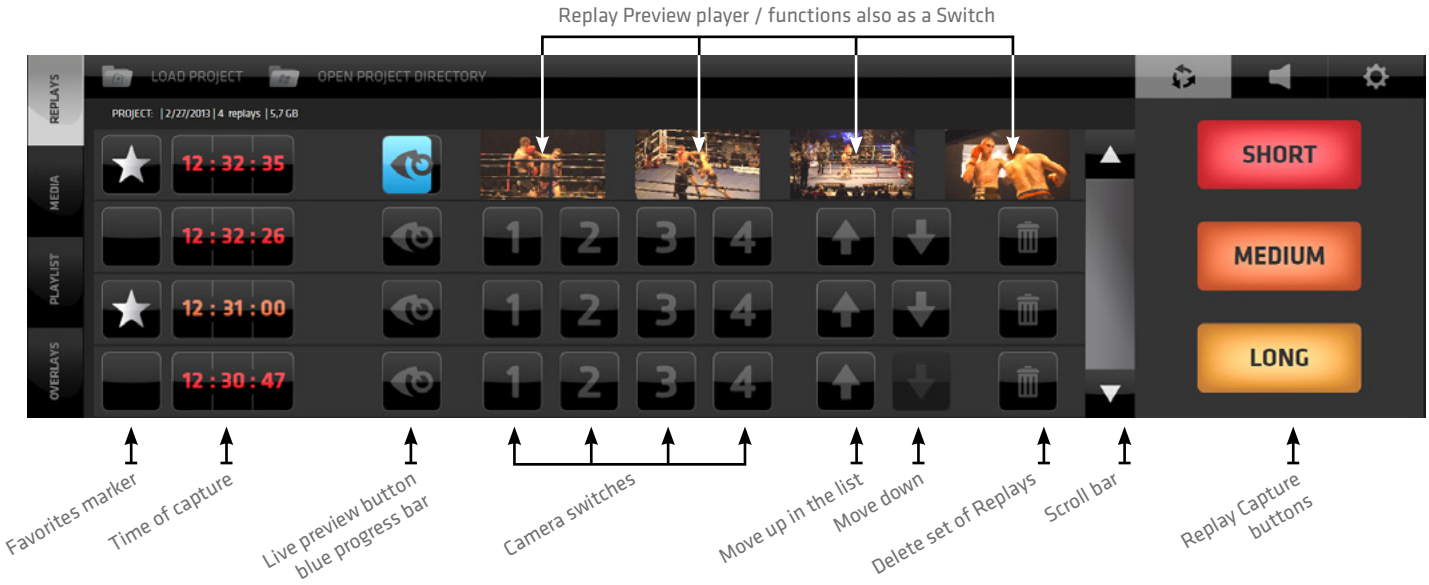
III./1. CMA (Content Management Area) - MEDIA Tab

Contains a list of available media and all interface elements to use the MEDIA playback functionality.

1. **Media Preview / Switch** - a small video display of the media file that also serves as a switch. Touch/click to cut the media file into PG Out.
2. **Media file info** - usefull information readout about the media file
3. **Live preview on/off button** - touch/click to preview the media file in the thumbnail preview display. The media can be cut to live PG Out anytime during the preview by touching/licking the Thumbnail.
4. **Assignment to Playlist** - use this function to assign media files to more complex Playlists. Touch/click the button, a dialog box appears that enables you to select an already made playlist or to create a new Playlist. Select the Playlist to assign the file to. (The procedure is described in detail in the PLAYLISTS section on page 13.)
5. **Playback/Loop** - set a media file to loop or to play a selected number of times.
6. **Audio switch** - on/off switch for Media audio
7. **Sorting buttons** - use to move Media files up and down in the list.
8. **Scroll bar**

III./2. CMA (Content Management Area) - REPLAYS Tab

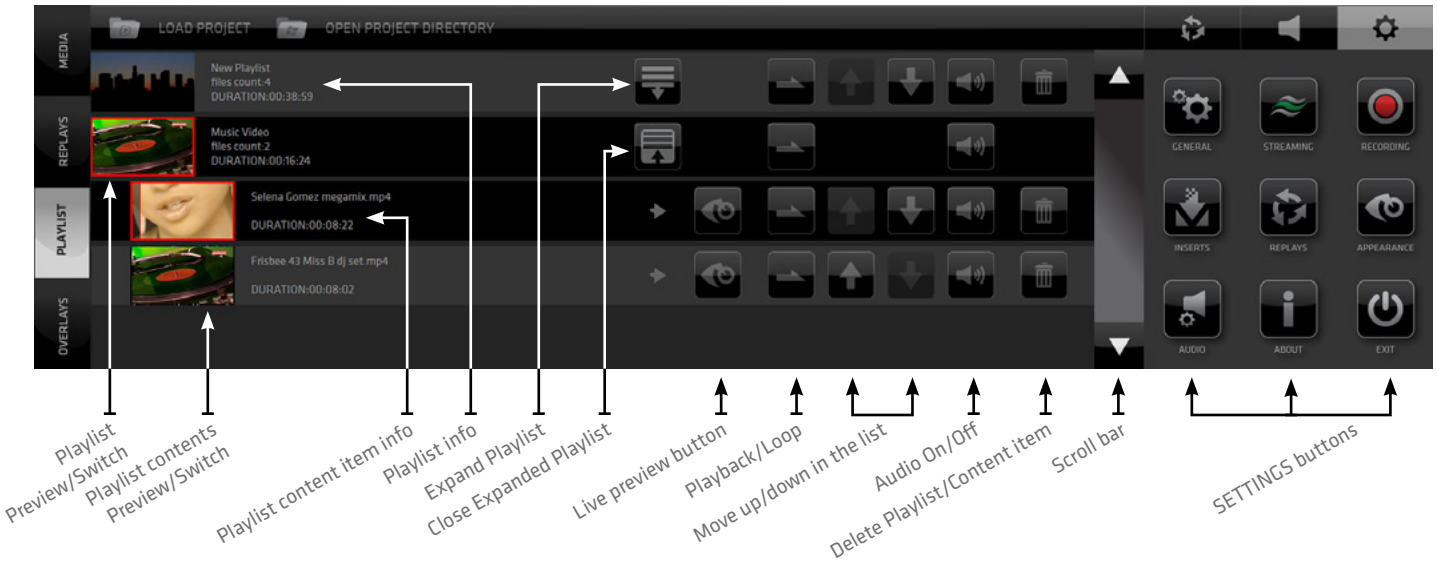
Contains a list of all captured replays and all interface elements to operate the REPLAYS functionality.



1. **Favorites marker** - a visual marker to highlite a Replays set of extra importance
2. **Time code of capture** - color coded time signature of the captured Replay set
3. **Preview button** - triggers the display of 4 video players for preview of the captured replay in each camera. Touch/click a preview to cut the replay of a camera to live PG OUT.
   While playing a preview a blue progress bar in the preview button indicates the playhead position.
4. **Camera switches** - touch/click any of the 4 camera replay buttons to cut that camera replay to PG OUT.
   Replays are cut IN and OUT to PG OUT with a lead-in and a lead-out animation - called “WIPE”.
   The setup of the Wipes is described in detail in the Settings section under REPLAYS Settings on page 20.
5. **Sorting buttons** - move a set of Replays up and down in the list
6. **Delete** - deletes a set of Replays from the list and the system
7. **Scroll Bar** - scroll up and down the list
8. **Replay Capture buttons** - trigger the capture of replays of 3 different lengths, which can be set in the Settings/Replays section. Go to page 20, “SA - Replays Tab” section for detailed description.

III./3. CMA (Content Management Area) - PLAYLISTS Tab

Contains a list of PLAYLISTS and all interface elements to operate the PLAYLISTS functionality.

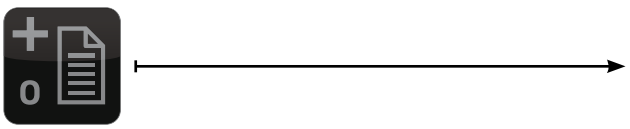


1. **Playlist Preview/Switch** - thumbnail video player of the entire playlist, touch/click it to cut to PG OUT, when playing in PG OUT touch/click it again to cut out of PG OUT
2. **Playlist Content Preview/Switch** - thumbnail video player of an item in the playlist, touch/click it to cut to PG OUT, when playing in PG OUT touch/click it again to cut out of PG OUT
3. **Playlist content info** - playlist content item info
4. **Playlist info** - playlist info
5. **Playlist expansion button** - touch/click to expand a playlist a manage it's content
6. **Expansion Close button** - close expanded playlist
7. **Preview button** - triggers a preview of the item in the thumbnail video player
8. **Playback/Loop button** - set the playback of the item to a number of repeats or a loop
9. **Sorting buttons** - move a Playlist item up and down in the list
10. **Audio On/Of button** - turn on/off the item's audio
11. **Delete** - deletes an item from the list and the system

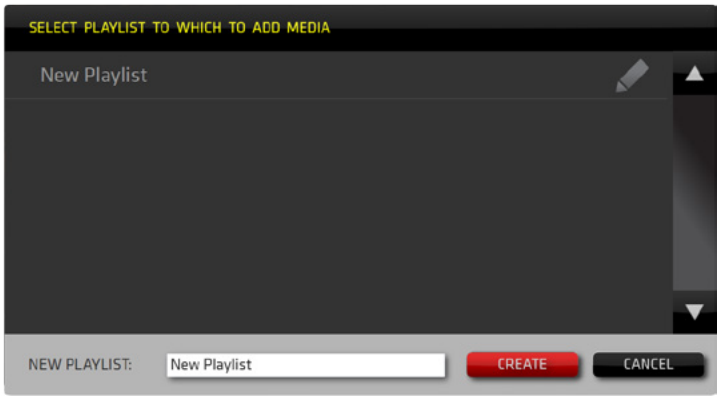
Playlist Creation and Management

Playlists are virtual collections of media files assembled in a list for a particular reason.
Therefore they are created from within the MEDIA TAB in the CMA (content management area).
Procedure:

1. Go to the CMA - MEDIA TAB
2. Choose a Media file to assign to a Playlist
3. Touch/click it's Playlist assignment button



4. A dialog box appears that enables you to select an already made playlist or to create a new one
5. Select the Playlist to assign the media file to



III./4. CMA (Content Management Area) - OVERLAYS Tab

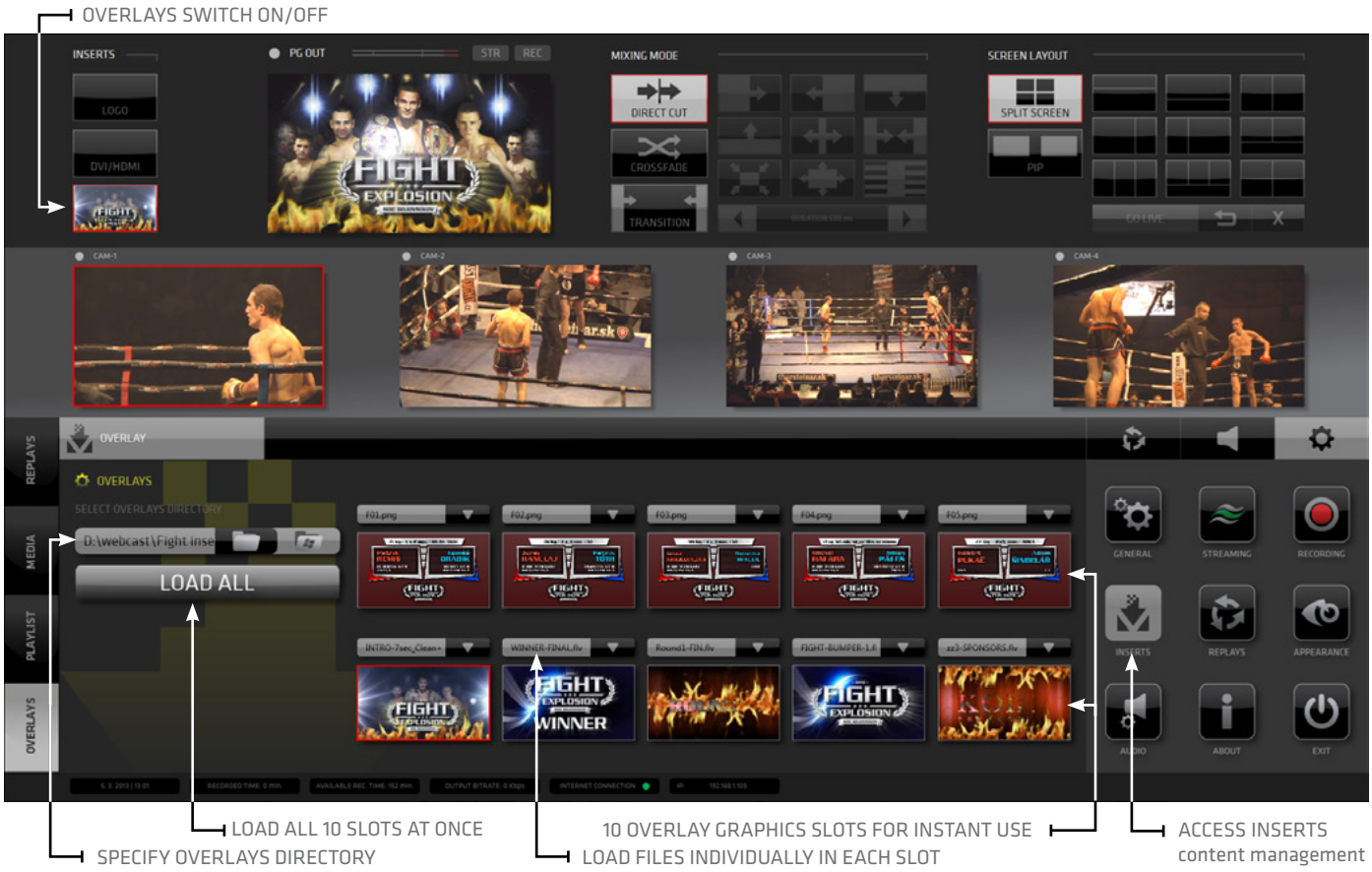
management of the OVERLAYS content of the INSERTS layer

The OVERLAYS is a powerfull feature that enables the user to create visually compelling productions. Typical usage will be titles, lower thirds, info graphics, bumpers, transitions, advertisements on a part of the screen, pop up promos and simillar.

The content of the OVERLAYS is managed and switched from the OVERLAYS TAB within the left side menu in the CMA.

Procedure:

1. Tap/click the OVERLAYS TAB in the left side menu bar of the CMA to display the OVERLAYS content.
2. Specify the directory where your Overlays files are located using the path selector.
3. Load all slots at once using the LOAD ALL button. First 10 files are instantly loaded into the 10 slots. Each slot can also be loaded individually using the selector button on top of the slot.
4. Tap/click the preview of the Overlay file you wish to insert into PG OUT.
5. Tap/click the OVERLAYS switch in the INSERTS section of the Production section on top left to turn the functionality on and cut the selected file to PG OUT.



NOTE:

1. Graphic files .PNG with transparency / alpha channel and animations .FLV with transparencies are supported.
2. If you leave the OVERLAYS switch in the PRODUCTION LAYOUT/INSERTS section ON, you can switch Overlay files by tap/click on their previews directly in the CMA (Content Management Area).

III. SA (settings area)

Contains user interface elements for / access to:

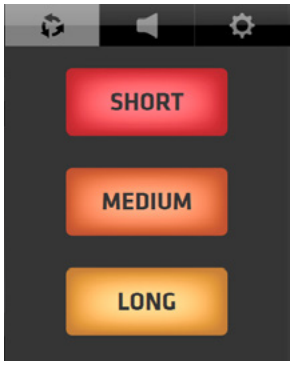
1. REPLAY CAPTURE BUTTONS - capturing replays
2. AUDIO MIXER BOARD - audio operations
3. SYSTEM SETTINGS BUTTONS - adjusting the system settings

NOTE: The SA-TABS change the appearance of both the SA and CMA to provide operating space relevant to the SA-TAB selected and reveal its interface elements.
However access to REPLAYS operating interface elements is a priority

III./a. SA (settings area) - REPLAYS Tab

Activates REPLAY CAPTURE buttons and activates the CMA - REPLAYS TAB for Replays operation

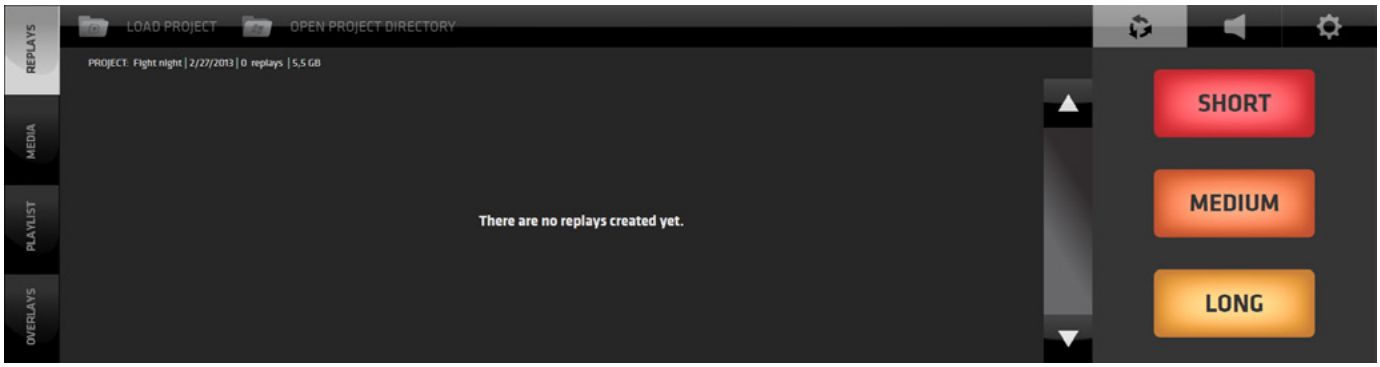
1. **SHORT button**
   triggers the capture of 3, 4 or 5 sec. replays in all cameras
   (the length can be set in REPLAY SETTINGS - default is 3 sec.)
2. **MEDIUM button**
   triggers the capture of 6, 8 or 10 sec. replays in all cameras
   (the length can be set in REPLAY SETTINGS - default is 6 sec.)
3. **LONG button**
   triggers the capture of 10, 15 or 20 sec. replays in all cameras
   (the length can be set in REPLAY SETTINGS - default is 10 sec.)



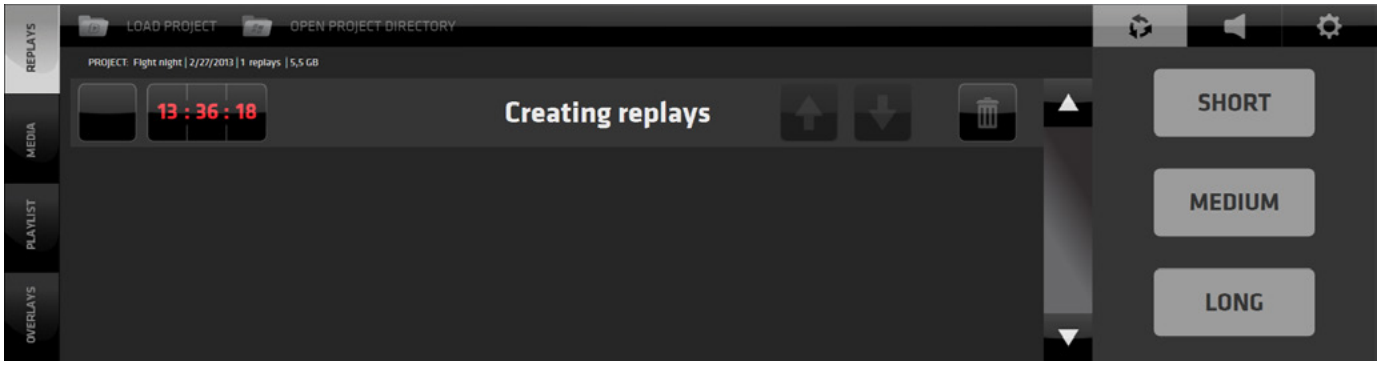
SA - Replay Capture buttons

Replay Capture and Playback procedure

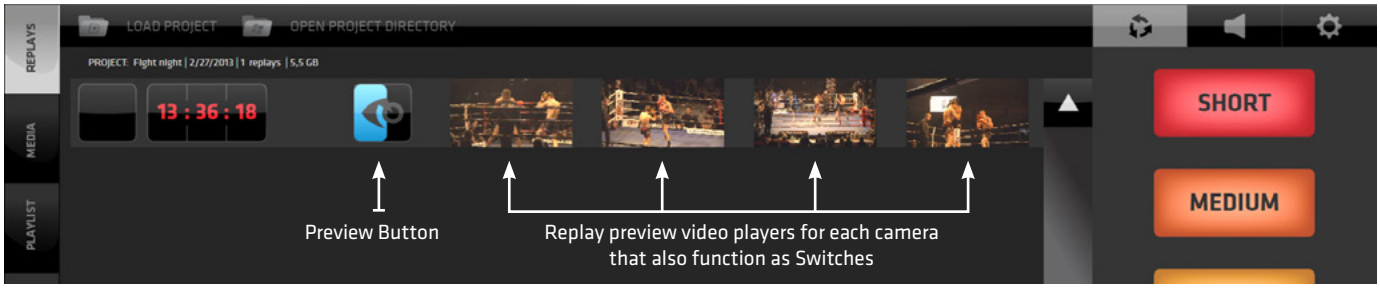
1. Activate the SM - REPLAY CAPTURE TAB, which reveals the Replay Capture buttons in SA and opens the CMA - REPLAYS TAB. In a new project there are no replays captured yet.



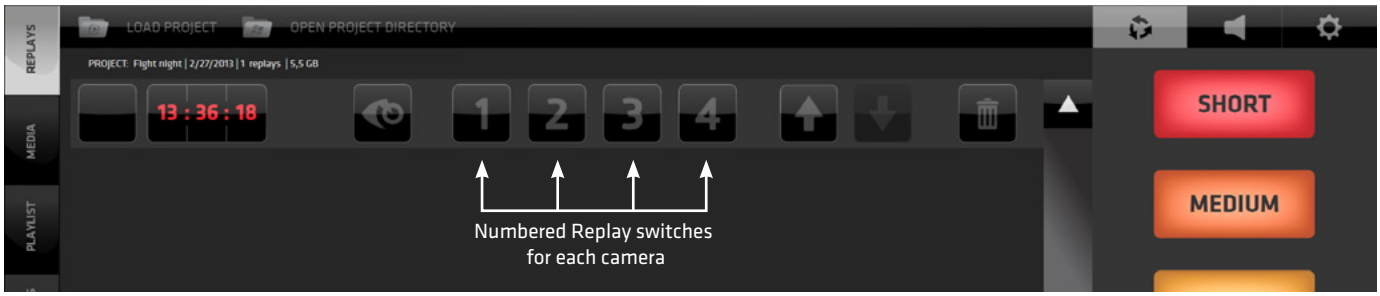
2. Tap/click one of the REPLAY CAPTURE BUTTONS in the SM to trigger the capture of a replay set. A replay set is generated and displayed in the list of available replays in the CMA.



3a. Tap/click one of the REPLAY preview button to preview the new captured replay in all cameras (no need to do this if yo don't want to). Tap/click a preview to cut the replay to PG OUT.... or



3b. Tap/click one of the numbered camera buttons to cut that camera replay to PG OUT.



4. Replays can be played back/inserted in PG OUT using lead-in/out animations, we call "WIPES".

NOTE:

The lead in/out WIPES functionality is managed from the REPLAY SETTINGS /WIPES section described on page 20.
A single wipe, a sequence of wipes or a random shuffle mode can be set for the use of Wipes.
Wipes are 2 sec. long FLV animations with transparency. The cut in/out point is at 50% /1 sec. exactly.
The functionality can be turned off... hence no wipes will be used for playing Replays.

5. Any Replay can be played back at will by tap/click on any of the numbered camera buttons or the preview player display (if the preview is on).
A cut from a one replay to another, to a live camera or a media file can be done at any time. No need to play the entire replay. It is completely up to the creativity of the operator.

NOTE:
1. The Replays are stored internally as 4 files for each replay set and are available for post-production.
2. If you delete a Replay set the files are erased from storage. Be aware that this is a destructive operation.

6. During the play back of a replay the SLOW MOTION functionality is applied. Default playback motion ratio is 50% of original speed. The playback can be slowed down further to 20%, or sped up to 100% of the original speed by pushing and holding the "S" and "F"keys on a keyboard respectively. All these parameters are fully adjustable in the Replay Settings described on page 20.

III./b. SA (settings area) - AUDIO Tab

Activates the AUDIO MIXER in the CMA and REPLAY CAPTURE buttons in SA (REPLAYS access priority).

The AUDIO MIXER board provides all the standard Audio mixer interface elements.

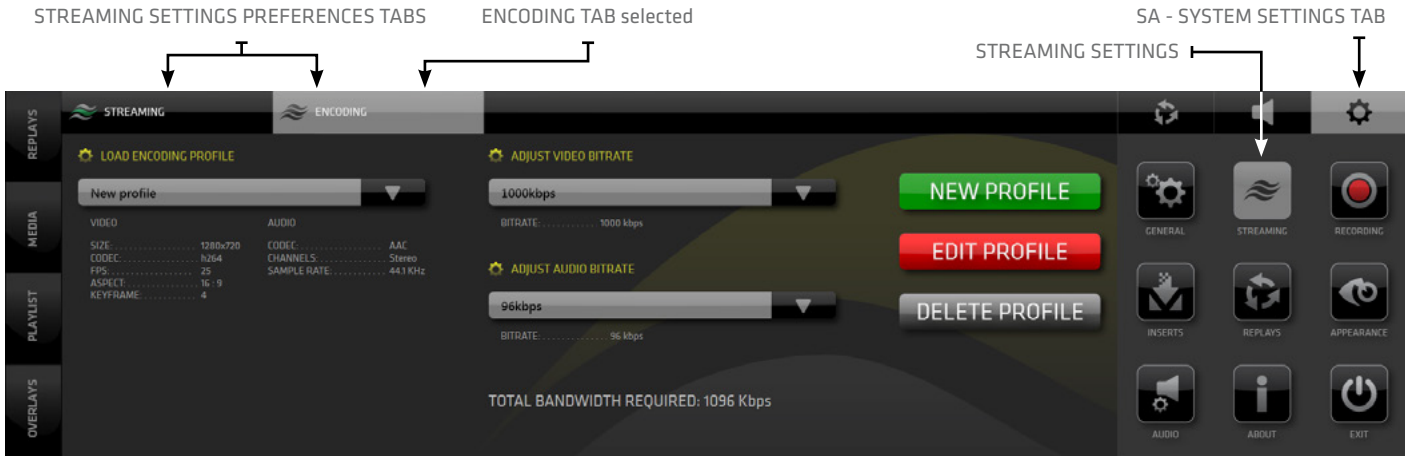
- cameras SDI embeded audio faders
- audio mute and solo buttons
- AUX input fader (external audio signal source)
- headphones level fader
- PG OUT levels faders with a stereo lock/unlock button

NOTE: 1. All faders have integrated Level and Peaking indicators
2. It is not the purpose of this manual to explain Audio Mixer board operational procedures. Basic knowledge of audio mixer operation is required.

III./c. SA (settings area) - SYSTEM SETTINGS Tab

Contains 9 buttons providing access to preferences for all system settings and functions.
Tap/click on a settings button in SA displays a relevant preferences panel in CMA.
Some preferences panels have additional PREFERENCES TABS on top of the CMA allowing access to more seetings and adjustable parameters.

The next screen shot shows a selected STREAMING SETTINGS preferences in SA an the STREAMING SETTINGS PREFERENCES panel with ENCODING PREFERENCES TAB selected.

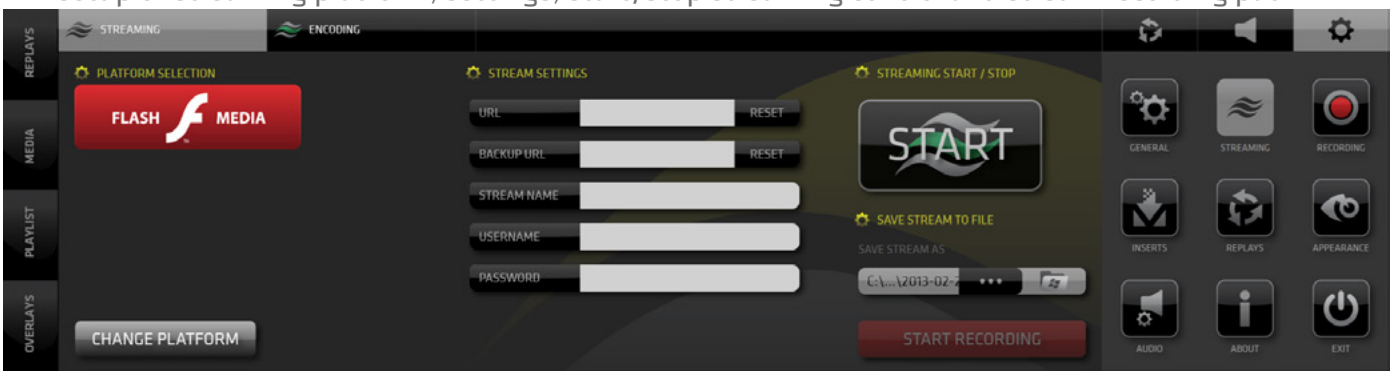


1. GENERAL

setup of directories, languages, layout grid view on a second monitor and the video standard settings

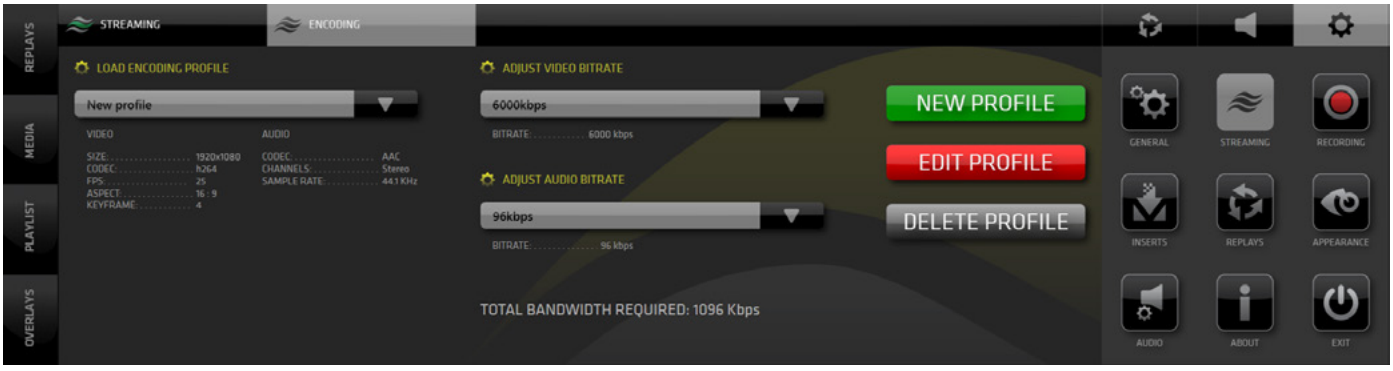
2a. STREAMING preferences / STREAMING tab

setup of streaming platform, settings, start/stop streaming control and stream recording path



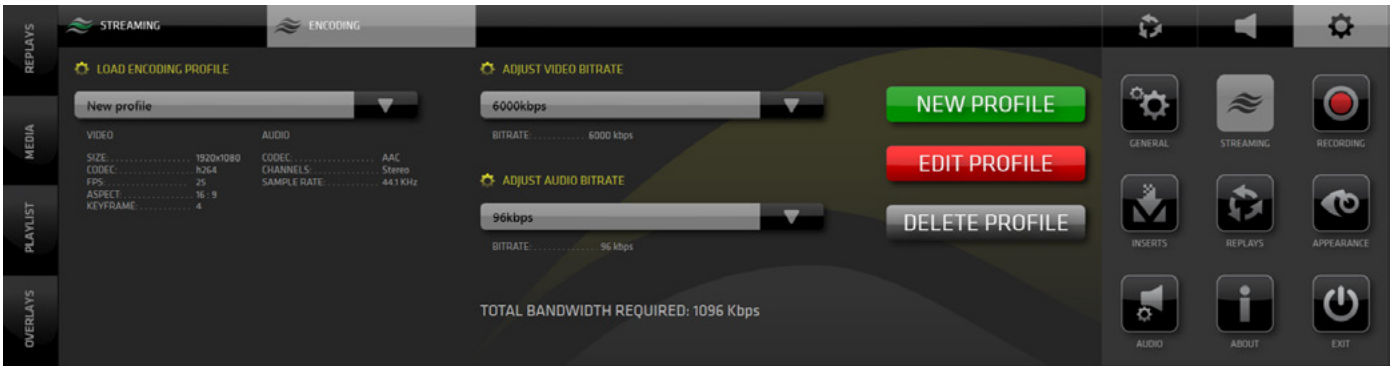
2b. STREAMING preferences / ENCODING tab

setup of encoding profile, encoding settings, encoding profile save/edit/delete



2b. STREAMING preferences / ENCODING tab

setup of encoding profile, encoding settings, encoding profile save/edit/delete

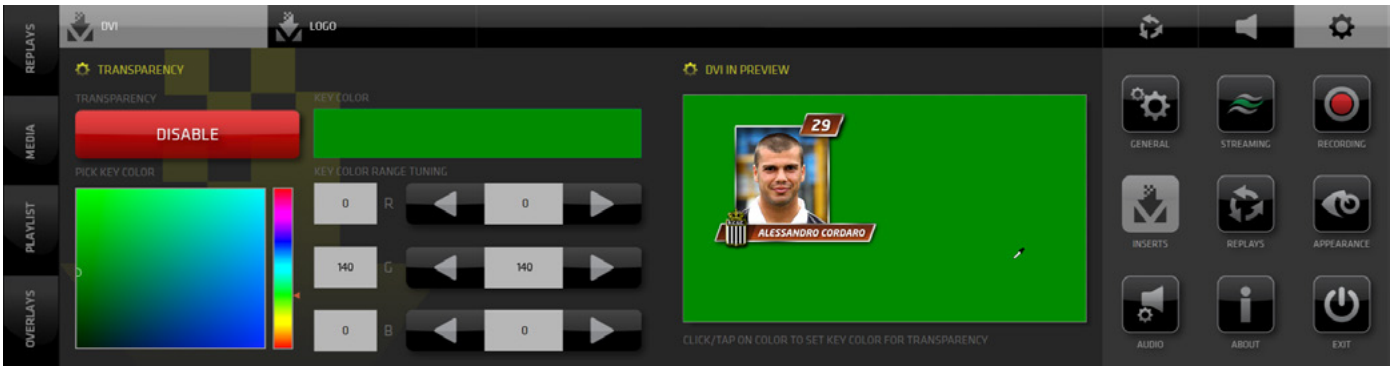


3. RECORDING

setup, start/stop of the recording functionality (independent from PGM stream recording)

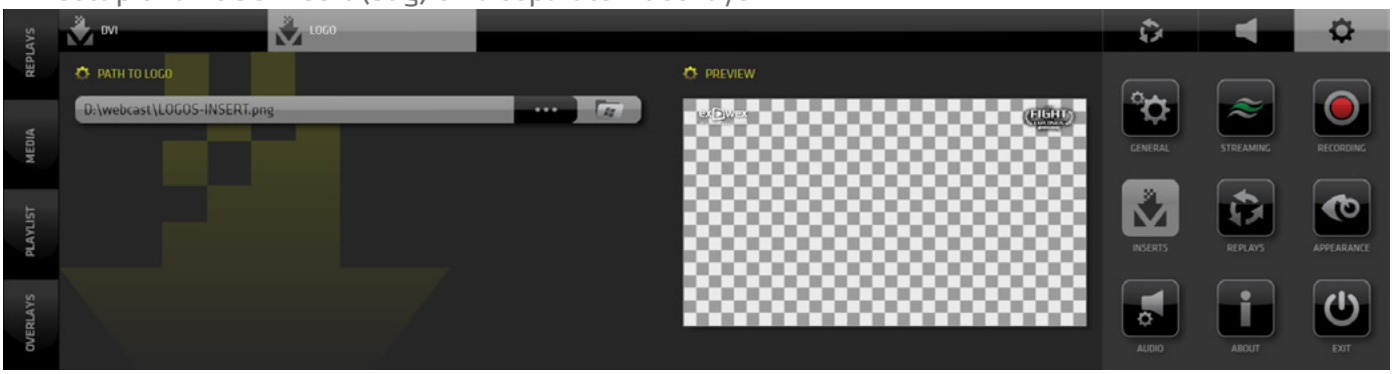
4a. INSERTS preferences / DVI IN tab

setup of the DVI IN signal and transparency key color - inserted as a layer on top of camera video



4b. INSERTS preferences / LOGO tab

setup of a LOGO Insert (bug) on a separate video layer

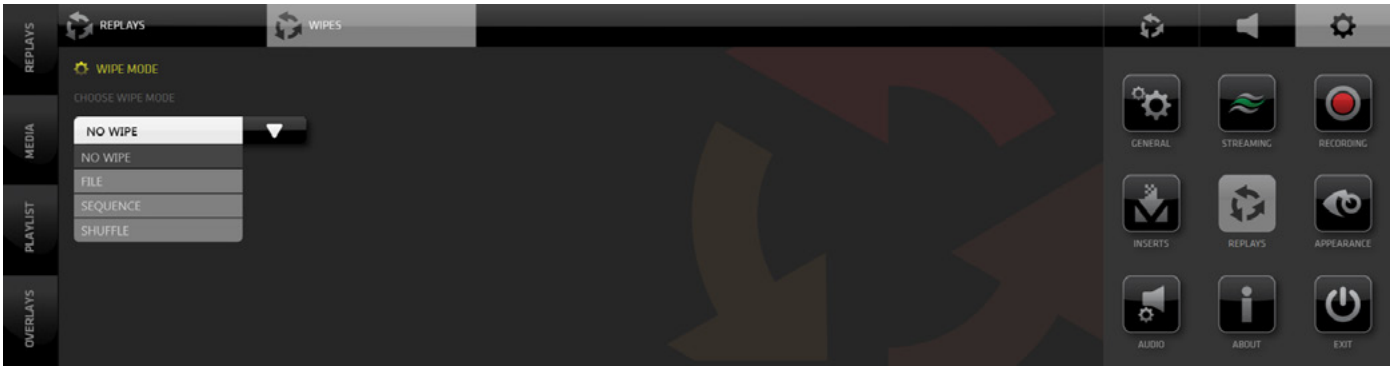


5.a. REPLAYS preferences / REPLAYS tab

setup of REPLAYS properties, length, slow/fast motion ratio, and keyboard shortcuts

5.b. REPLAYS preferences / WIPES tab

lead in/out animation setup - choosing the mode of operation

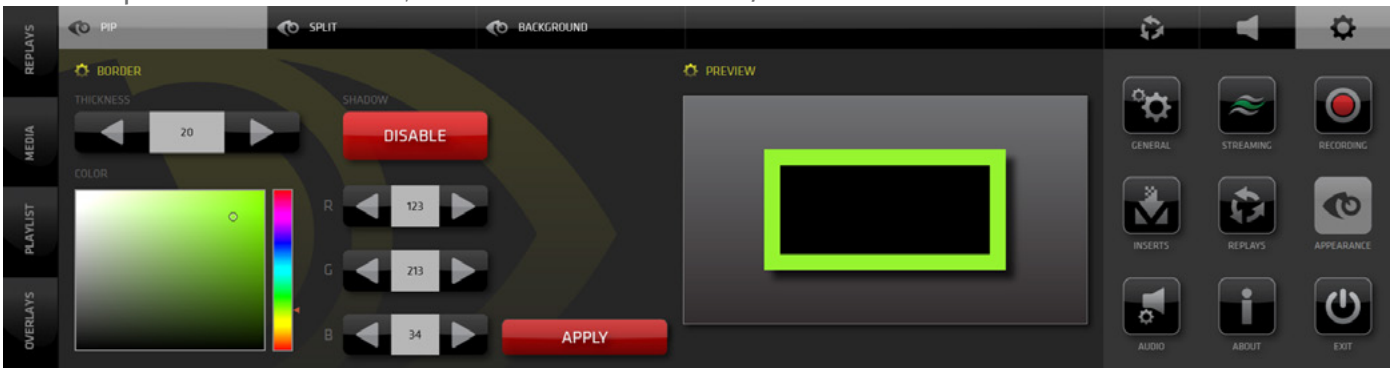


5.c. REPLAYS preferences / WIPES tab

select the WIPES folder and check the WIPES to be used, view WIPE usage statistics

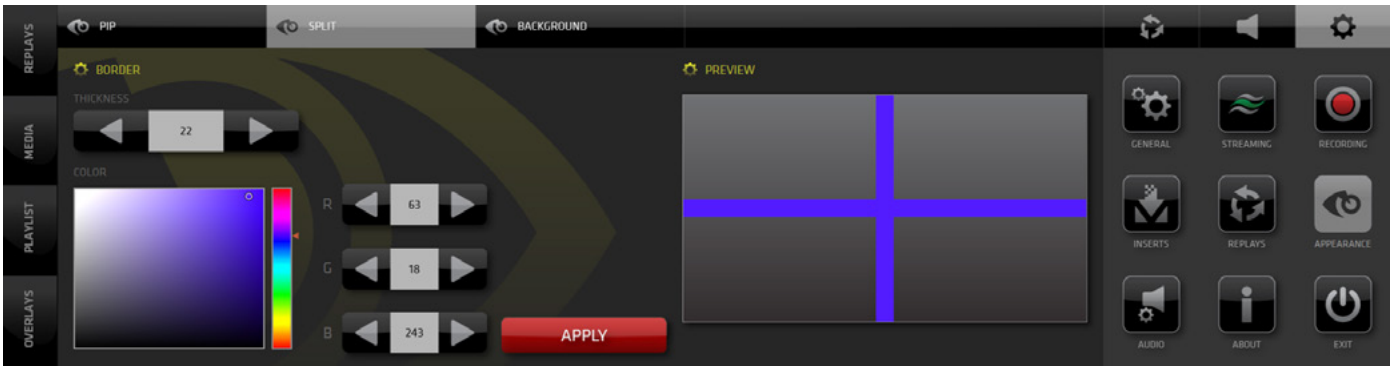
6.a. APPEARANCE preferences / PIP tab

setup of PIP border - color, thickness and shadow on/off



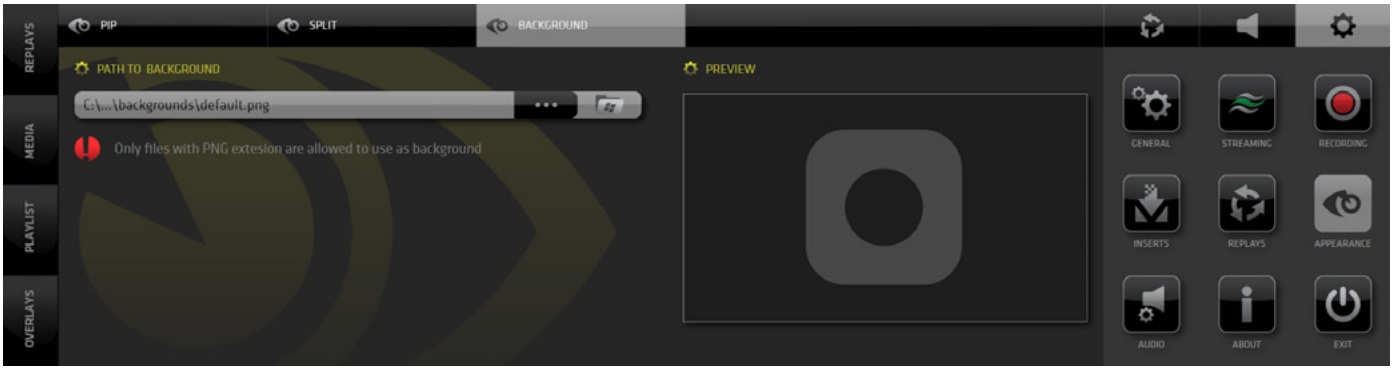
6.b. APPEARANCE preferences / SPLIT tab

setup of SPLIT SCREEN border - color and thickness



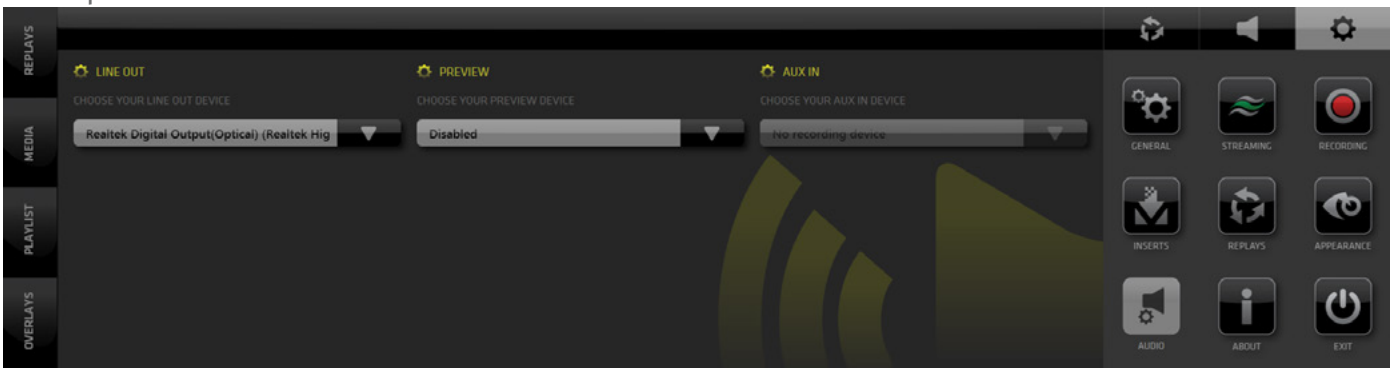
6.c. APPEARANCE preferences / BACKGROUND tab

setup of a background image to avoid black screen in case of camera dropout



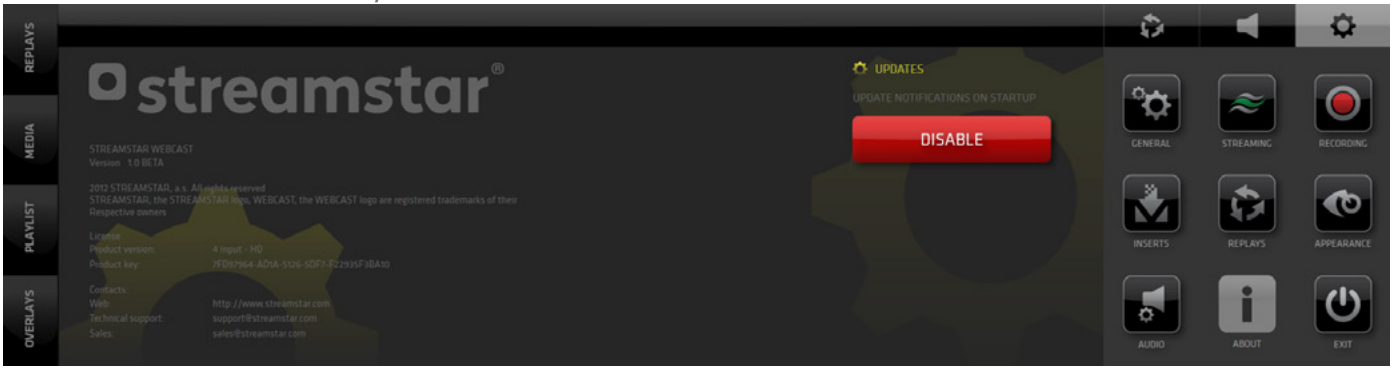
7. AUDIO preferences

setup of audio devices



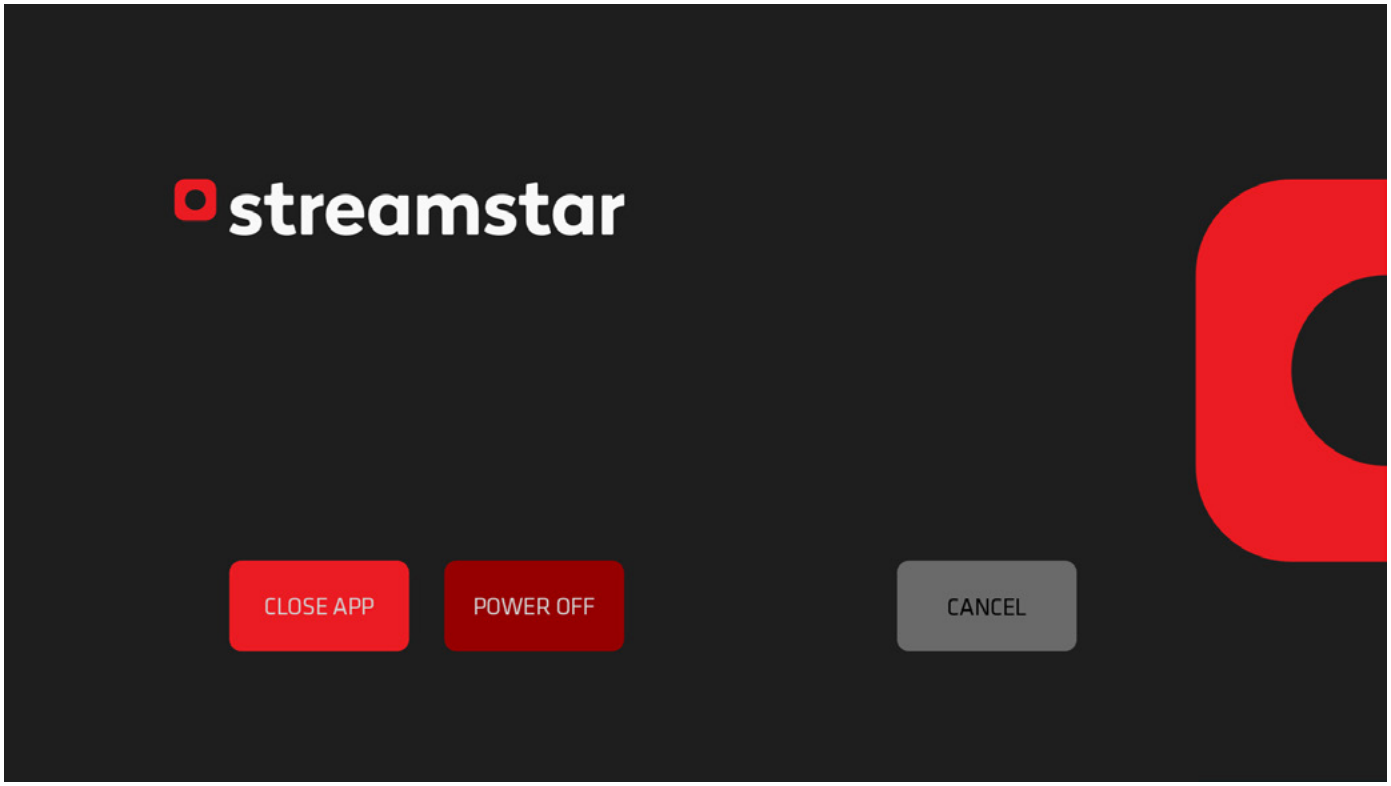
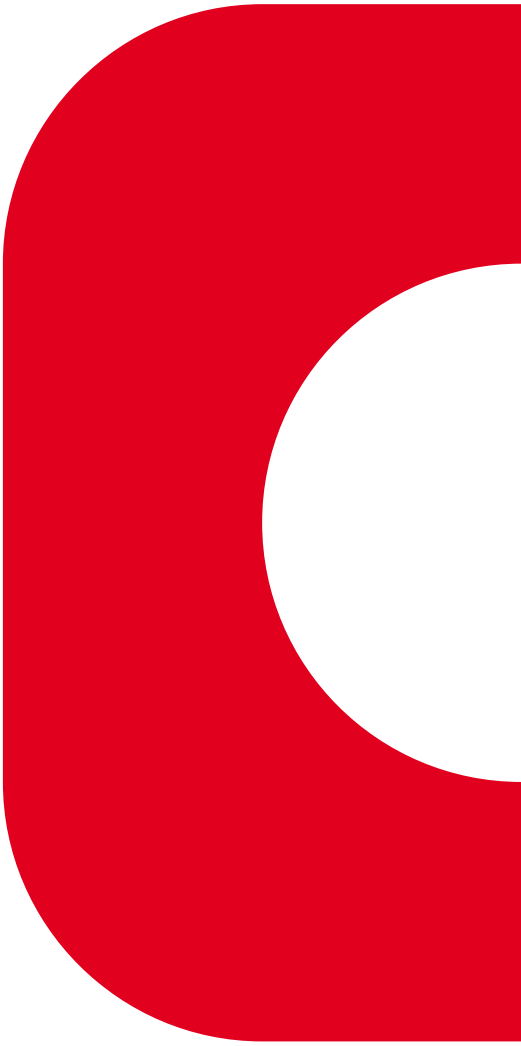
8. ABOUT screen

information about the system



9. SYSTEM TURN OFF

application shut down / system shut down



streamstar