CBOX SOFTWARE USER GUIDE

Version 1.9.0

Updated 2/1/2016

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RECORD OF REVISIONS

Release Number	Date	Section(s)	Page(s)	Summary of Changes
1.3.0	12/15/11			Initial Version – Software version 1.3.38
1.3.1	02/27/12	All	All	Major Revision
1.4.0	7/13/12	All	All	Software version 1.4.29
1.5.0	8/23/12	Broadcast (Live)	57 - 59	Software version 1.5.4
1.7.0	6/18/13	Hardware Configura-tion Console	14 - 22	HD-SDI and 3G-SDI video and embedded audio inputs
1.8.0	5/14/15	Broadcast (Live)	61 - 64	Software version 1.8.76
1.9.0	2/1/16	Hardware Configura-tion Console	16 – 23	Additional HD video, analog audio and embedded audio inputs

ABOUT THIS GUIDE

This guide will take you through the main features of the Cbox software named Amalga.

Please note that there are two categories of features:

- Base: Those features are available on all Cbox appliances.
- Optional: Those features may be disabled or not supported on your Cbox.
  A feature may be disabled because this is a lower cost Cbox. However, it is possible to enable a feature upon approval of your account manager at Winnov.
  A newer feature may not be supported because this is an older Cbox platform. However, it is possible to upgrade your hardware within the conditions of your Cbox support plan (CSP).

The optional and base features are identified in this guide.

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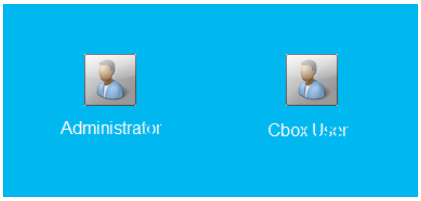
Other trademarks mentioned in this document are owned by their respective companies.

STARTING WINNOV CBOX FOR THE FIRST TIME

To start the Cbox appliance, push the power button once and wait 3 seconds. The system will start.



Two accounts are already created on the Cbox: **Administrator** and **Cbox User**
There is a password for the Administrator account: **Cbox1234**.
We recommend that you change this password after your first login.

There is **no password** for the Cbox User account.

Winnov recommends you DO NOT INSTALL other software on Cbox.
Winnov shall not be liable for any incidental or consequential damages resulting from installing non-recommended software on this product.

ABOUT AMALGA

Amalga is Winnov's rich media capture software which runs on the Cbox appliance.

To launch Amalga, double-click the Amalga shortcut on your Windows desktop:

START SCREEN

At launch, the Amalga **Start Screen** is presented.

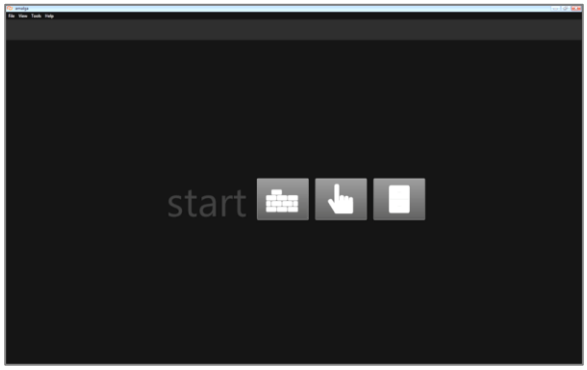


Figure 1 – Amalga Start Screen with Builder Interface

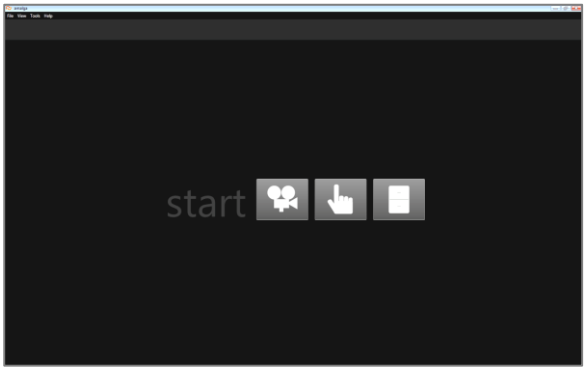
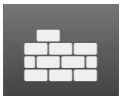
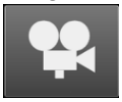


Figure 2 – Amalga Start Screen with Studio Interface

The Amalga **Start Screen** gives you the option to access Amalga **user interfaces** or browse the **archive directory** to access your recordings.

 Builder OR  Studio	Clicking the button will take you to the Builder / Studio interface: A user interface which is used to create mixes for different outputs and to define presets that will be used for recording a presentation. Different configurations can be saved for each individual presenter or use case. The Studio interface is the Builder interface with the capability to record. *Please note that the Studio interface is an optional feature.*
	Clicking the button will take you to the Touch interface: A simplified user interface designed for the presenter. It provides all the functionality required for a presenter to create a recording and to switch among various mixes using the presets created within the Studio / Builder interface.
	Clicking the button will open a Windows Explorer window where your recordings are archived.

START SCREEN MENU BAR

For easy navigation, the following menus are available in the menu bar.

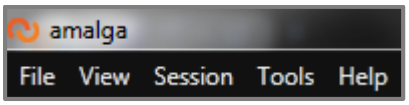


Figure 3 – Menus

FILE

The **File** menu contains the same options as displayed on the **Start Screen**. Select the **File** menu to access the Builder / Studio interface, the Touch Interface, the Archives, or exit the application.

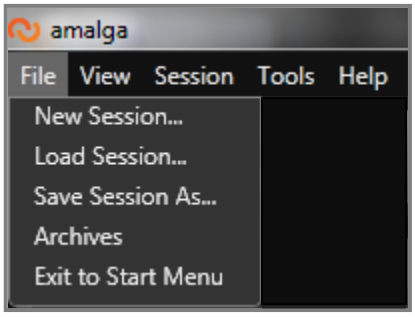


Figure 4 – File Menu

VIEW

The **View** menu contains the **Fullscreen** option. When enabled, Amalga will launch in full screen mode.

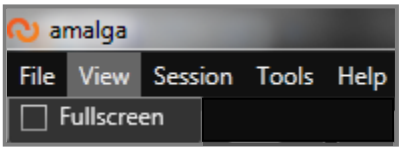


Figure 5 – View Menu

TOOLS

From the **Tools** menu, you can launch the **Hardware Configuration Console**, access Amalga's **Scheduler**, and modify general **Options** to customize functionality within Amalga.

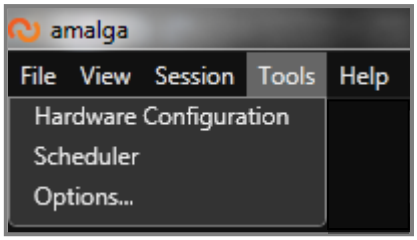


Figure 6 – Tools Menu

This document first describes the **Hardware Configuration Console** since it is the tool of Amalga to set up your audio and video sources.

HELP

The **Help** menu displays the following three items:

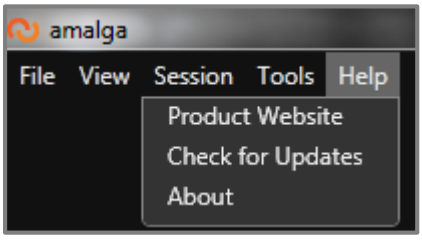


Figure 7 – Help Menu

- **Product Website:** Opens a web browser and directs the user to the Amalga's product page.
- **Check for Updates:** Opens a web browser and directs the user to the Amalga's software updates page from which updates can be downloaded (drivers, players and other software releases).
- **About:** Displays Product Version and Assembly Version of Amalga.

HARDWARE CONFIGURATION CONSOLE

The **Hardware Configuration Console** is the tool for setting up your audio and video sources.
It consists of three main areas:

- The Audio Control Panel
- The Video Control Panel
- The PTZ Joystick Control Panel

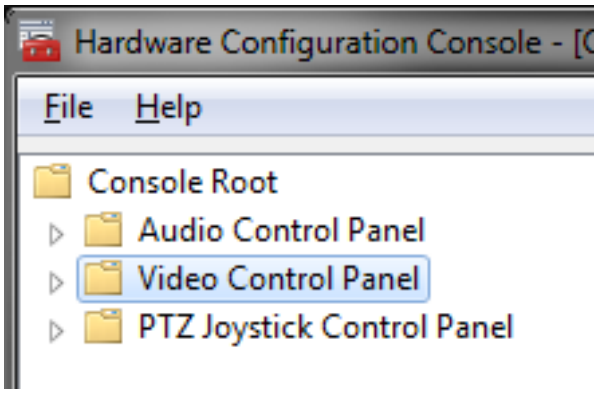


Figure 8 – Hardware Configuration Console

It is not recommended to leave the Hardware Configuration Console open while recording with Amalga.

1 VIDEO CONTROL PANEL

The **Video Control Panel** consists of controls that determine incoming video signals into Amalga. All Video Sources give you control over **Brightness**, **Contrast**, **Saturation**, **Hue**, **Luma Gain**, **Chroma Gain** and **Sharpness**. Both Luma Gain and Chroma Gain also have **Auto** levels that can be enabled by checking the appropriate checkboxes.

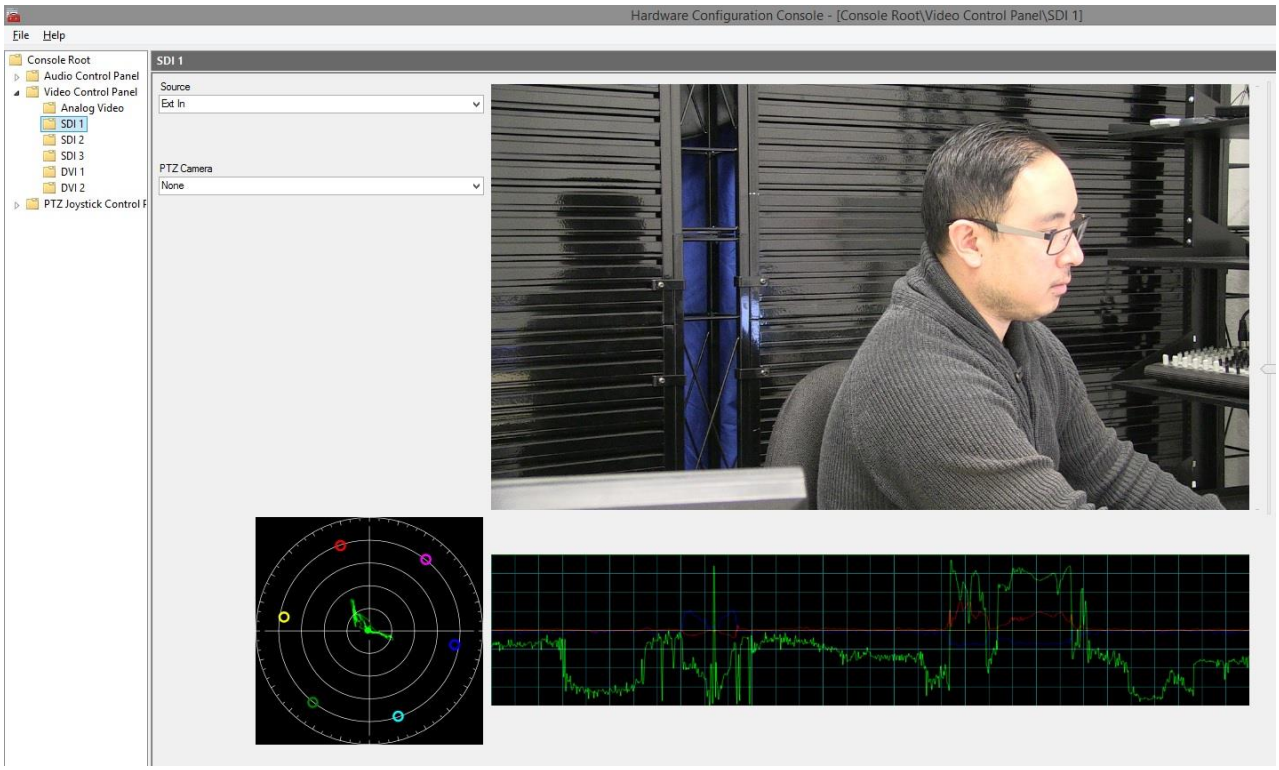


Figure 9 – Video Control Panel

1.1 GENERAL

Source Info
Source Info provides information about the video signal coming into the Cbox via A/V Breakout Cable. The **Signal Locked** indicator signifies whether or not a video signal is present by providing either a “True” or “False” value. **Lines Detected** displays the number of lines of resolution detected in the video signal (525 for NTSC sources or 625 for PAL sources).

Standard
Cbox accepts both NTSC and PAL sources. The **Standard** selector allows you to select either NTSC or PAL depending on the source you have connected to the Cbox.

Source
The **Source** selector allows you to select the correct video input which is physically connected to your Cbox.

Equipment
The **Black & White** and **VCR** options under **Equipment** allow you to optimize incoming video depending on sources being used.

- Check **Black & White** if a black and white video source is being used. This removes the chroma signal and produces a better overall black and white image.

- Check **VCR** if a tape video source is being used. This adjusts the video decoder for a better overall image.

Flipping
You can apply **Vertical** and **Horizontal** flipping of video sources by checking the appropriate checkbox. This is useful for cameras that require special mounting requirements such as cameras mounted upside down.

1.2 SPECIFICS

Analog Video
Analog Video is the **analog video input** (composite) which is available on your Cbox via the A/V Breakout Cable (Breakout Cable version) or rear chassis labeled “VIDEO IN” (Push Pin version).

SDI 1, 2, and 3
SDI 1, 2, and 3 are the **HD / 3G-SDI** video inputs which are available on your Cbox via the BNC connectors.

DVI 1 and 2
DVI 1 and 2 are the **DVI / HDMI / RGB / Component** video inputs which are available on your Cbox via the DMS-59 adapter cable.

By default, 2 (upgradeable to 3) HD input channels are enabled on the Cbox L3.
By default, 3 (upgradeable to 5) HD input channels are enabled on the Cbox S3.
Additional HD input channels may be enabled upon approval of your account manager at Winnov

1.3 PTZ CAMERA

The **PTZ Camera** selector allows you to assign the PTZ Camera. Cbox auto-discovers the PTZ Cameras available for control and the dropdown menu would be populated as follows:

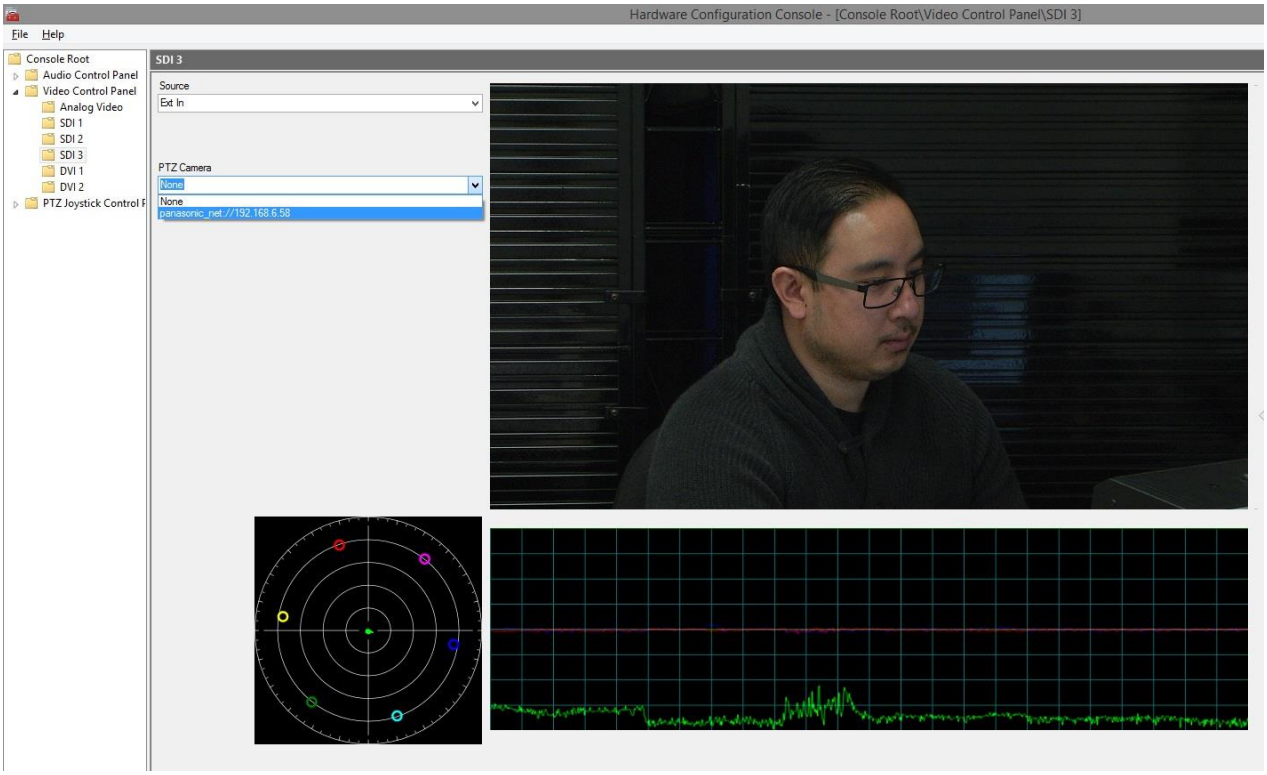


Figure 10 – Video Control Panel / PTZ Camera

- Cbox supports Panasonic PTZ Camera devices (AW-HE2, AW-HE40, AW-HE50, AW-HE120, AW-HE130) over IP. PTZ camera controls can be accessed from the Studio / Builder Interface. PTZ presets can be associated with the Audio / Video Mix Presets.
- For instance, it will populate the dropdown menu as shown below:

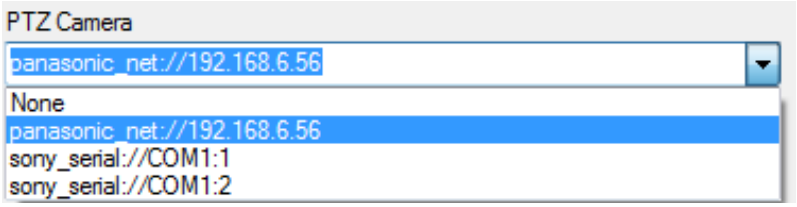


Figure 11 – Video Control Panel / PTZ Camera Over IP

Once assigned, a **PTZ button** 

will be displayed in the Studio / Builder user interface of Amalga for the specified video input. Clicking on the **PTZ button** will display the PTZ control screen as shown below:

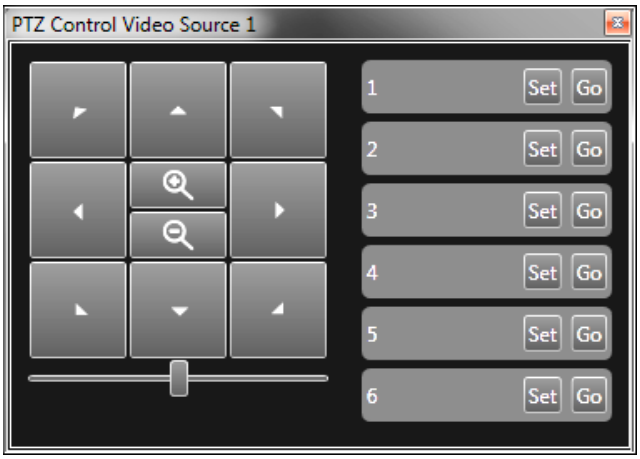


Figure 12 – PTZ Control Screen

1.3.1 SETTING AND ACTIVATING CAMERA PRESET SELECTIONS

To set and activate a Preset Selection, follow the steps below:

1. Use the buttons to **pan, tilt, zoom in, and zoom out** to adjust your camera
2. Click the **Set** button that corresponds to the camera preset you wish to assign. You may assign up to 6 presets per camera.
3. Click **Go** to activate the set preset

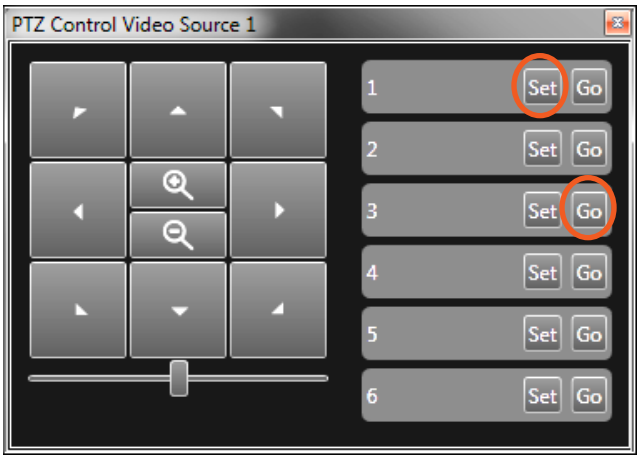


Figure 13 – Setting and Activating Camera Preset Selections

1.3.2 ASSOCIATING PTZ PRESETS WITH CBOX PRESETS

PTZ presets can be associated with Cbox Presets. To associate a PTZ preset to a Cbox preset, follow the steps below:

1. Be sure to **Set** the camera preset you wish to assign
2. Click the desired **PTZ preset tile** and drag into the Cbox preset in the **Presets** column
3. Repeat steps 1 and 2 to **assign multiple PTZ presets** to multiple Cbox presets

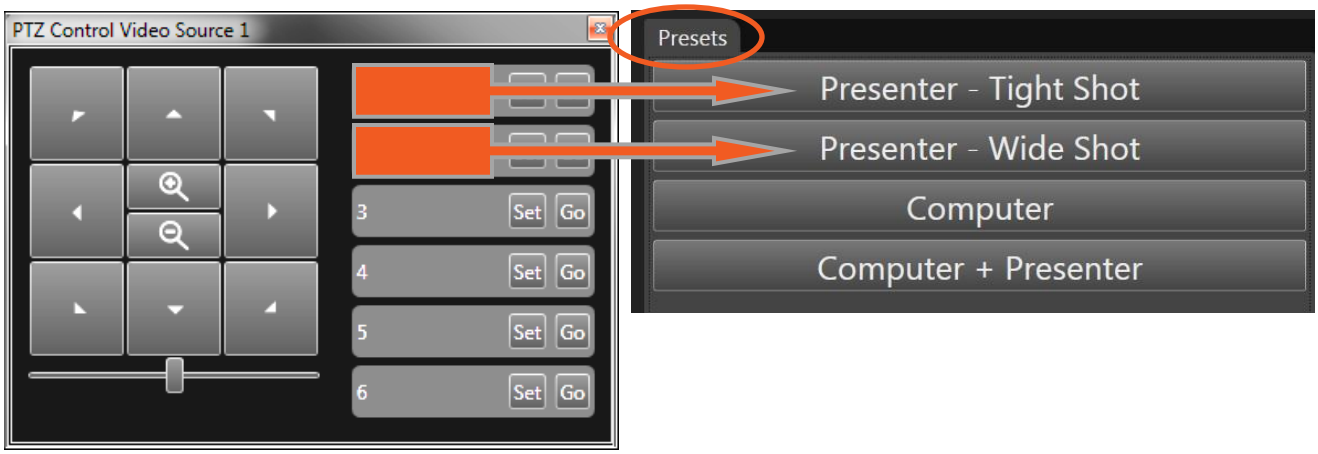


Figure 14 – Assigning PTZ Presets to Cbox Presets

2 AUDIO CONTROL PANEL

The **Audio Control Panel** includes controls for the audio inputs / output. Audio inputs can be renamed to identify audio sources more easily. Amalga will use and display the audio sources names as they appear in the Hardware Configuration Console.

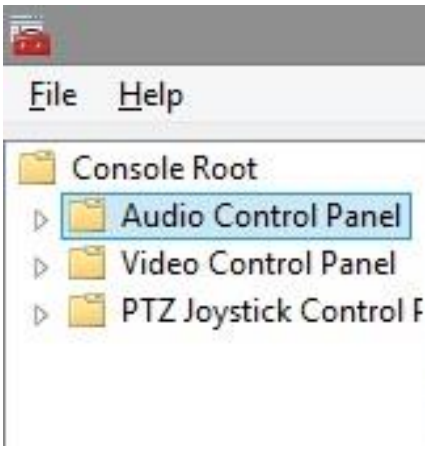


Figure 15 – Audio Control Panel

2.1 GENERAL

VU Meters indicate the overall level of an Audio Source.

Volume sliders allow you to cut or boost Audio Source levels as needed. In the case of Speaker, the volume sliders are used to control outgoing audio levels.

All values can be reset to their default values by right-clicking the audio source and selecting **Reset**.

2.2 SPECIFICS

Audio 1 In, 2 In, and Audio 3 In (Breakout Cable version)
This Audio Source represents the four XLR inputs labeled **AUDIO 1 IN** and **AUDIO 2 IN,** and **AUDIO 3L AUDIO 3R IN** on the A/V Breakout Cable version. These Audio Sources are typically used from balanced mono microphones and in-room audio mixing board.
Attenuation can be adjusted to cut audio by **-10 dB** by selecting the appropriate radio button.

Audio 4 In - Audio 7 In (Breakout Cable version)
These Audio Sources represent the four RCA sockets labeled **AUDIO 4L IN** and **AUDIO 4R IN**, **AUDIO 5L IN** and **AUDIO 5R IN, AUDIO 6L IN** and **AUDIO 6R IN, AUDIO 7L IN** and **AUDIO 7R IN** on the A/V Breakout Cable version.

Audio 1 In and 2 In (Push Pin version)
This Audio Source represents the four terminal block inputs labeled **AUDIO 1L IN** and **AUDIO 1R IN, AUDIO 2L IN** and **AUDIO 2R IN** on the Push Pin version. This Audio Source is typically used from an in-room audio mixing board.
Attenuation can be adjusted to cut audio by **-10 dB** by selecting the appropriate radio button.

Audio 3 In - Audio 5 In (Push Pin version)
These Audio Sources represent the 1/8” mini-jack on the back of appliance labeled **IN 3**, **IN 4, IN 5** on the Push Pin version.

Audio Out
Audio Out represents the two XLR outputs or terminal block labeled **AUDIO L OUT** and **AUDIO R OUT** on the A/V Breakout Cable or Push Pin version. Audio Out is associated with Amalga’s Audio Out output in the A/V Equipment category in the Output Wizard.

SDI Source 1, 2, and 3 Audio Ch 1 / 2

SDI Sources 1, 2, and 3 Audio Ch 1 / 2 are the **SDI embedded audio inputs**, which are available on your Cbox via the BNC connectors. Two channels of embedded audio are available for each SDI Video Source.

Since SDI embedded audio is digital, there is no analog gain to be applied at a physical level and there is no phantom power, so all controls are greyed out. However, gain can still be adjusted at the software level (see Studio / Builder Interface).

DVI 1 and 2 Audio

DVI 1 and 2 Audio supports **embedded HDMI audio inputs**, which are available on your Cbox via the DMS-59 adapter cable. One channel of embedded audio is available for each HDMI Video Source.

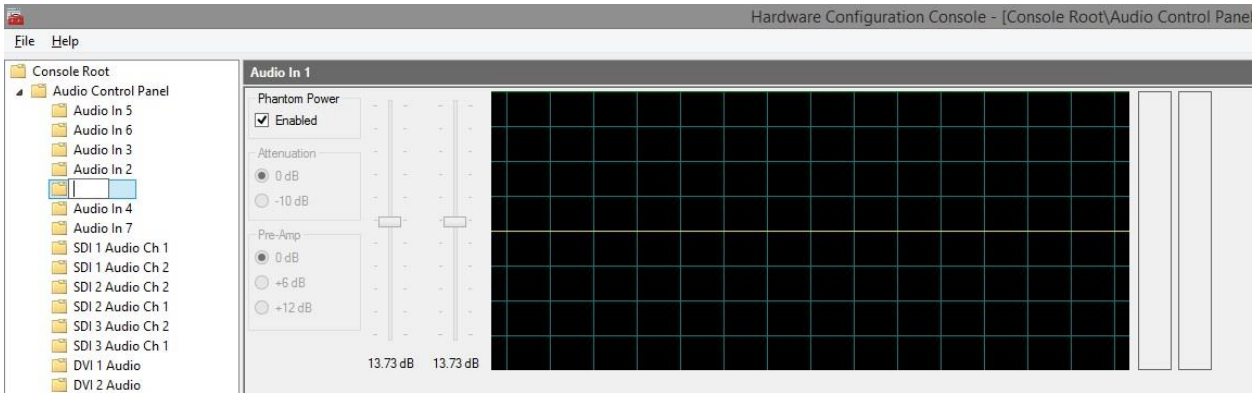


Figure 16 – Audio Control Panel / SDI Embedded Audio / HDMI Embedded Audio

BASE FEATURES

STUDIO / BUILDER INTERFACE

3 General Menu Options

For easy navigation in the Studio / Builder Interface, the following menus are available in the Amalga menu bar.

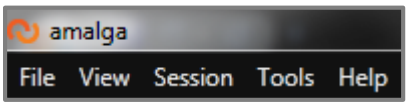


Figure 17 – Menus

3.1 File

The **File** Menu contains the following options:

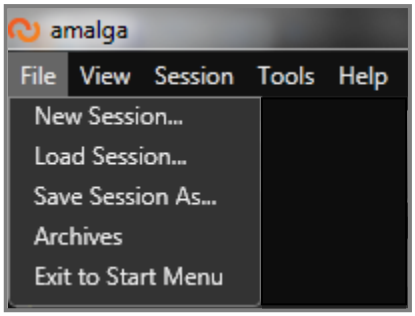


Figure 18 – File Menu

- **New Session**: Creating a new session configuration from scratch.
- **Load Session**: Loading a Session allows you to retrieve the previous configurations that you have already saved.
- **Save Session As**: Saving your current session allows you to save the current configuration (metadata, inputs, outputs, presets).
- **Archives:** will open a Windows Explorer window where your recordings are archived.
- **Exit to Start Menu:** will bring you back to the start screen.

3.2 View

The **View** menu contains the **Fullscreen** option. When enabled, Amalga will launch in full screen mode.

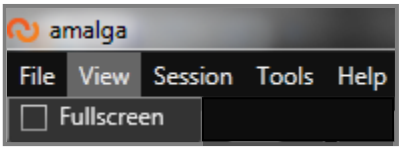


Figure 19 – View Menu

3.3 SESSION

The **Session** Menu contains the following options:

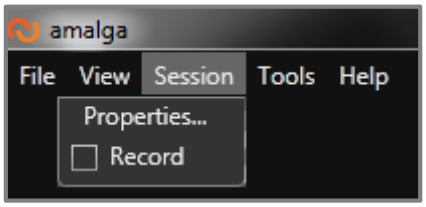


Figure 20 – Session Menu

- **Properties:** Clicking on **Properties** allows you to go back to the **Session Properties** dialog. For more information, see the “Session Properties” section.
- **Record:** Clicking on **Record** starts/stops a recording. This serves the same function as clicking the Record button. *This option is not available in the Builder Interface.*

3.4 TOOLS

The **Tools** Menu contains the following options:

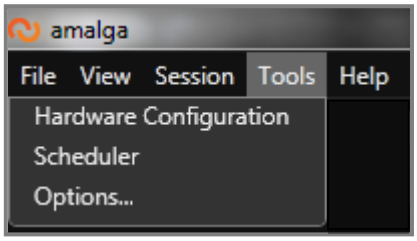


Figure 21 – Tools Menu

- **Hardware Configuration:** will launch the Hardware Configuration Console. For more information, see the “Hardware Configuration Console” section.
- **Scheduler:** will open the Scheduler window
- **Options:** will open a window to set the general options.

The **Sessions** tab is where a Pre-Record Action and/or Post-Record Action is specified.

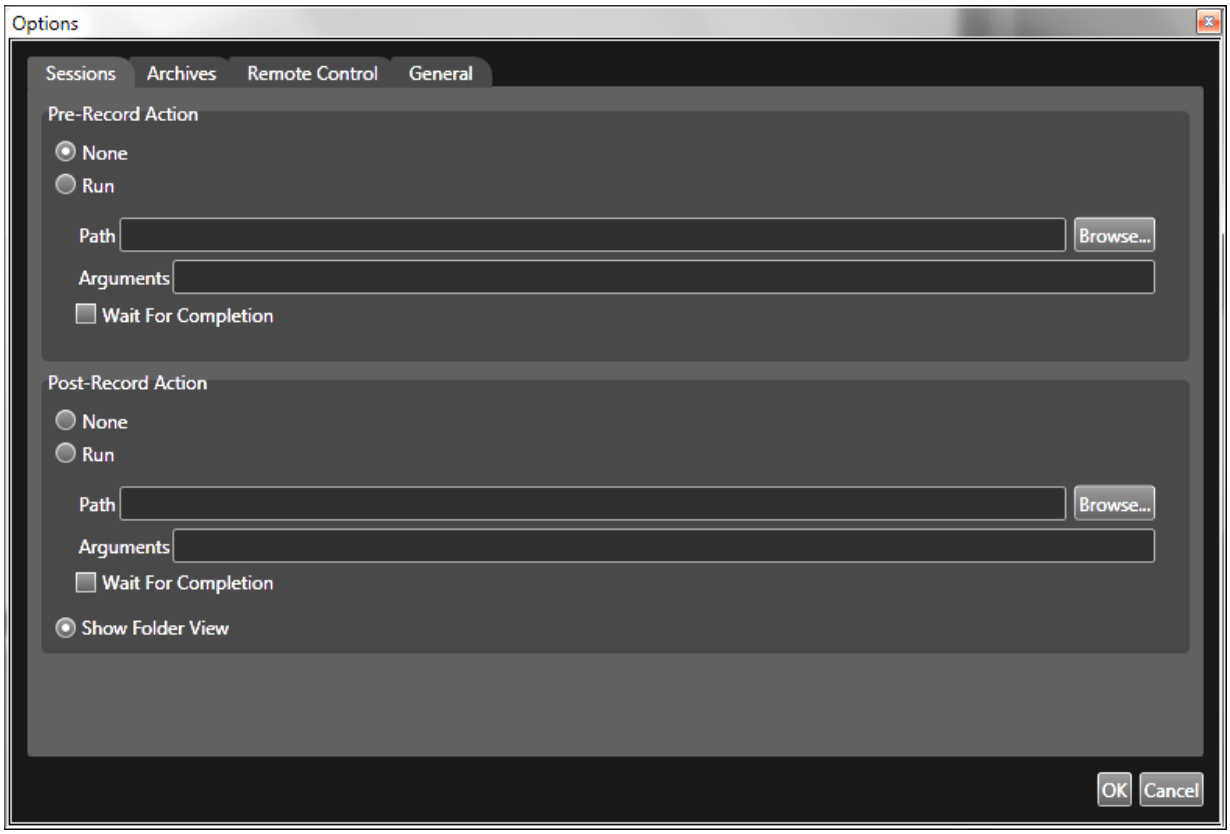


Figure 22 – Options Window / Sessions Tab

Pre-Record Actions are actions initiated when a recording begins, such as running an executable to perform a task when a recording begins. The Pre-Record Action options are:

- **None:** Performs no action when a recording is started. This is the default option.
- **Run:** Performs the task specified in the Path field when starting a recording.
- **Arguments:** Passes optional parameters to the executed task when starting a recording.
- **Wait for Completion:** Begins recording after completion of the task specified in Run. Leaving this unchecked will immediately start the recording, even if the specified Run task is still running.

Post-Record Actions are actions initiated when a recording is stopped. The Post-Record Action options are:

- **None:** Performs no action when stopping a recording.
- **Run:** Performs the task specified in the **Path** field when stopping a recording.
- **Arguments:** Passes optional parameters to the executed task when stopping a recording.
- **Wait for Completion:** Stops the recording after completion of the task specified in Run. Leaving this unchecked will immediately stop the recording, even if the specified Run task is still running.
- **Show Folder View:** Opens the directory in which the recordings are archived in an Explorer window. This is the default option.

The **Archives** option is where the path to the directory of your recordings will be archived.

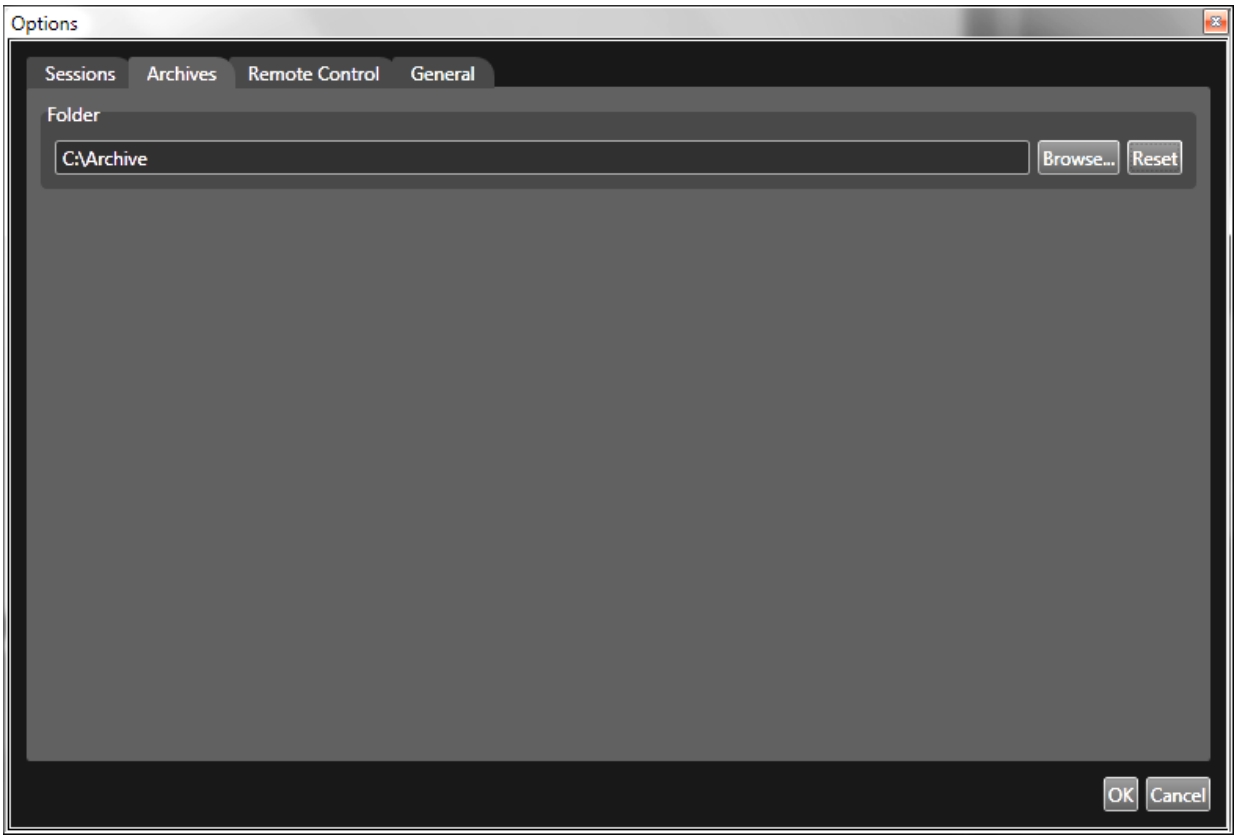


Figure 23 – Options Window / Archives Tab

The default path to the **Archives** is: ***C:\Archive***

Clicking the **Reset** button will set the archive directory path back to this default directory.

Enabling the **Remote Control** option allows Amalga to be controlled remotely via API.

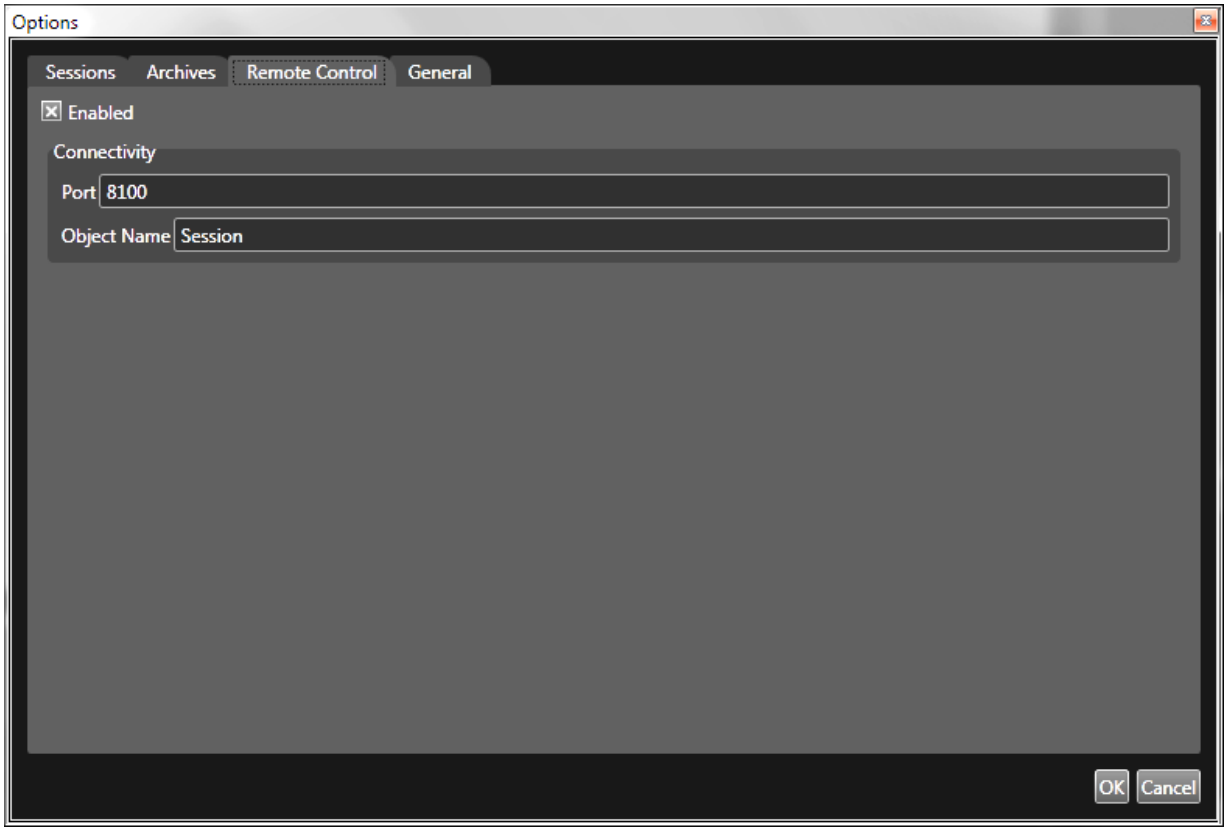


Figure 24 – Options Window / Remote Control Tab

The following options are available under **Connectivity:**

1 **Port:** Specifies the port through which the remote API will communicate.
2 **Object Name:** Specifies the name of the object that will be used to communicate with the API.

For details on how to use Amalga's Remote API, there is a supplemental **Amalga Remote API** document.

Under the **General** options tab, you will find the "**Show Session Properties dialog on application start up**" and "**Show Metadata view**" options.

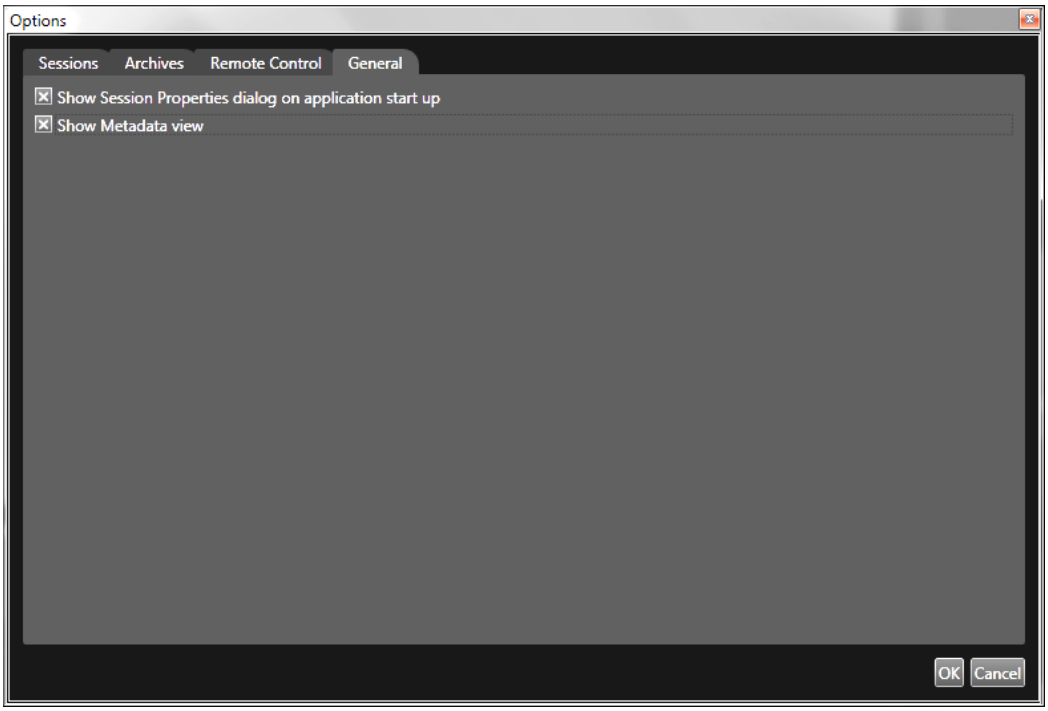


Figure 25 – Options Window / General Tab

When enabled, Amalga's **Session Properties** dialog and **Metadata** view will appear upon launching the Studio / Builder Interface. These options are enabled by default.

3.5 HELP

The **Help** menu displays the following three items:

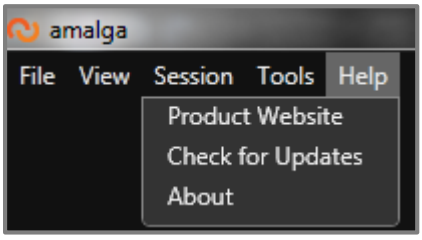


Figure 26 – Help Menu

- **Product Website:** Opens a web browser and directs the user to Amalga's product page.
- **Check for Updates:** Opens a web browser and directs the user to Amalga's software updates page from which updates can be downloaded (drivers, players and other software releases).
- **About:** Displays Product Version and Assembly Version of Amalga.

4 SESSION PROPERTIES

When starting the Studio / Builder Interface, the **Session Properties** dialog will appear by default.

You can also access the **Session Properties** dialog by clicking on this button: 

The **Session Properties** window includes tabs to define and configure **Metadata**, **Inputs** and **Outputs** for a specific session.

4.1 METADATA

Metadata is the information about a specific session.

Under the **Metadata** tab, you can define and type in the **Title**, **Author**, **Description**, **Keywords** and **Copyright** details of a session.

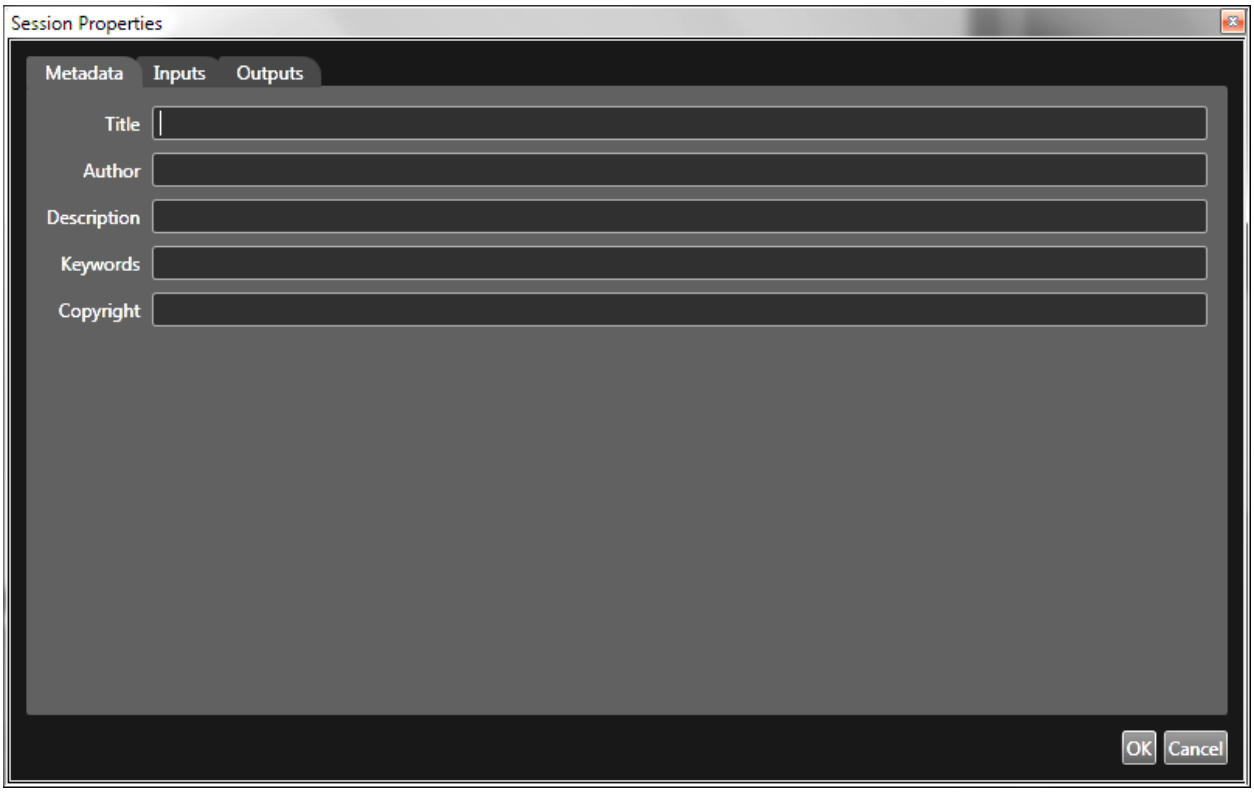


Figure 27 – Session Properties Window / Metadata Tab

4.2 INPUTS

The **Inputs** tab is where audio and video sources for a recording are managed.

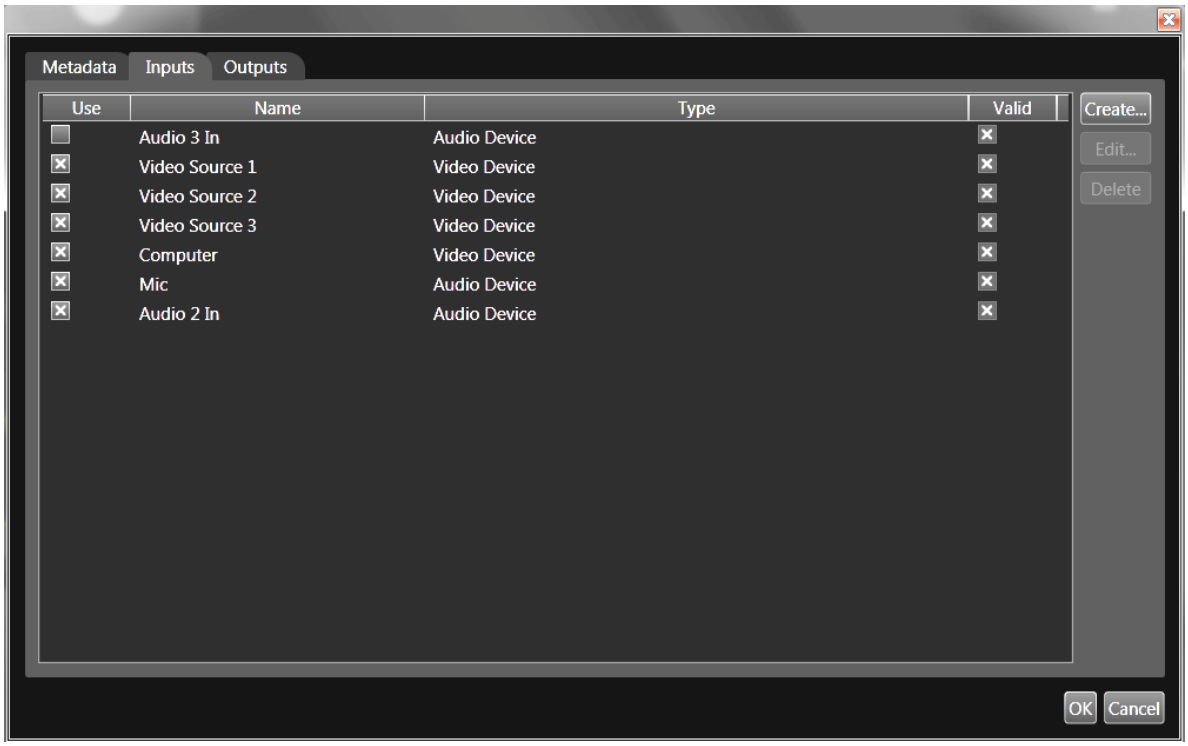


Figure 28 – Session Properties Window / Inputs Tab

4.2.1 CREATING INPUTS

1. To create an input, click on the **Create…** button.
2. Select the input **Type**. Choose between Audio Device, Video Device, or Other Video Device.

Figure 29 – Input Editor / Type

.

3. Then select the **Source** for the input to be used in Amalga. The Source options will be displayed as the names set in the Hardware Configuration Console.

Figure 30 – Input Editor / Source

4. After a Source has been selected, give the source a **Name** if you wish to specify a name other than the default. This name will identify the input in the user interface.

5. Click the **OK** button to confirm the input selection.

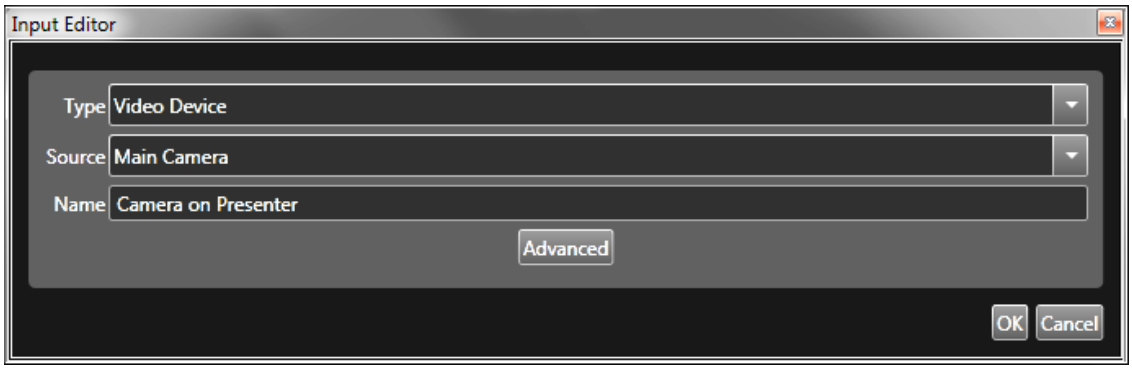


Figure 31 – Input Editor / Name

6. **Repeat steps 1 - 5** to create additional inputs.

4.2.2 EDITING INPUTS

1. To edit an input, select the input you wish to edit in the Inputs tab and click the **Edit** button. You can also double-click the selected input.

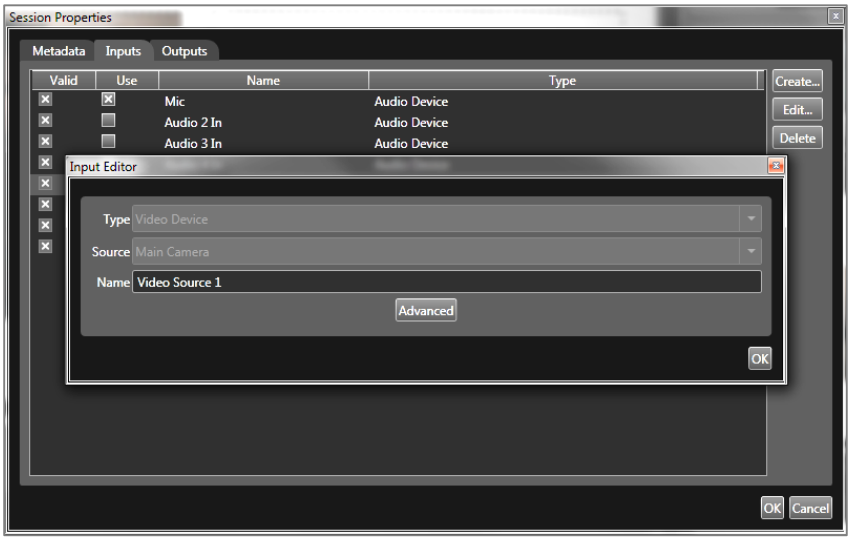


Figure 32 – Input Editor / Modify Name

2. You can modify the **Name** of the input (the type and the source cannot be modified).

Deleting Inputs

1. To delete an input, select the input you wish to delete in the Inputs tab and click the **Delete** button.

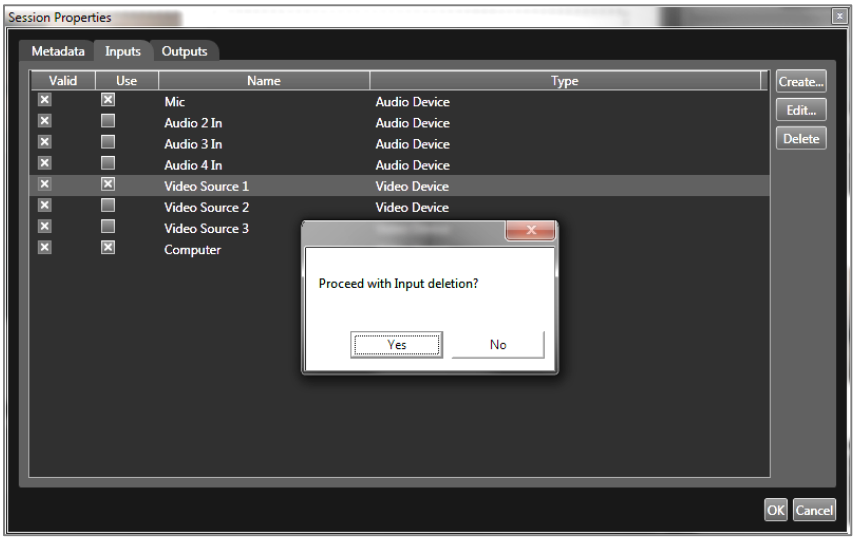


Figure 33 – Input Deletion

2. You will be asked to confirm deletion of the input. The action cannot be undone once you have confirmed deletion of an input.

4.2.3 ADVANCED INPUT EDITOR

The **Advanced Input Editor** allows you to crop and scale a Video Device source.

Figure 34 – Advanced Input Editor

1. Access the **Advanced Input Editor** and apply advanced modifications by clicking the **Advanced** button when creating/editing a Video Device input.

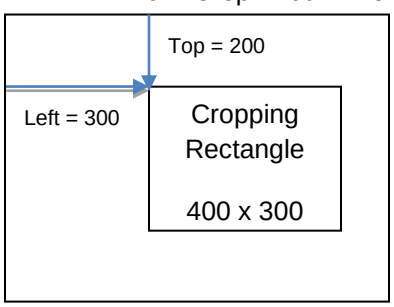
2. The **Advanced Input Editor** window will appear with two video preview panes.
   a. The **Source** pane indicates the width, height and frame rate of the video source as Cbox captures it.
   b. The **Target** pane allows you to modify the width, height and frame rate of the input and allows you to define a cropping rectangle to crop your video inputs.

3. Checking the **Deinterlace** checkbox will apply deinterlacing to the video source.

4. Selecting **Auto Format** will automatically format the video source without applying any scaling or cropping. This option is enabled by default.

5. For **Cropping**:

- Uncheck the Auto Format checkbox
- Define the **Width** and **Height** of the **Target**
- Define the **Width** and **Height** of the **Cropping Rectangle** with the following conditions:
  - Crop Height < Target Height
  - Crop Width < Target Width
- Define the **Left** and **Top** values for positioning the **Cropping Rectangle** with the following conditions:
  - Crop Height + Top < Target Height
  - Crop Width + Left < Target Width



4.3 OUTPUTS

The **Outputs** tab is where you specify the types of outputs you wish to create for your recordings. An "output" can be a file for playback, a live stream, or output signal to hardware such as a projector or PA system. Each output mix is customizable to ensure that it is optimized for each targeted device.

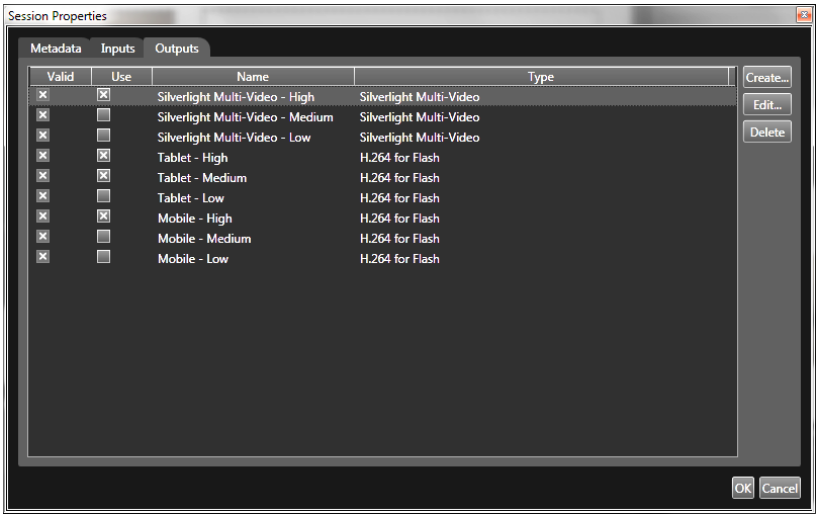


Figure 35 – Session Properties Window / Outputs Tab

4.3.1 CREATING OUTPUTS

1. To create an output, click on the **Create…** button to launch the **Output Wizard**.
2. In the **Output Wizard**, select a **Category** for the output type you wish to create.

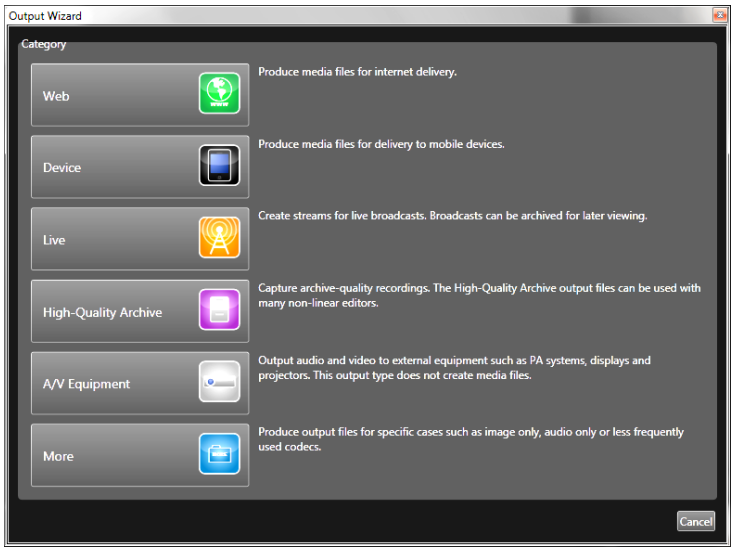


Figure 36 – Output Wizard / Category

3. After selecting an output **Category**, a list of output **Types** for the selected **Category** will be displayed. Select the **Type** of output by double-clicking the output type, or by selecting the output type then clicking the **Next >** button.

Figure 37 – Output Wizard / Type

4. After selecting the **Type** of output you want, you are presented with **Configuration** options for the selected output **Type**.

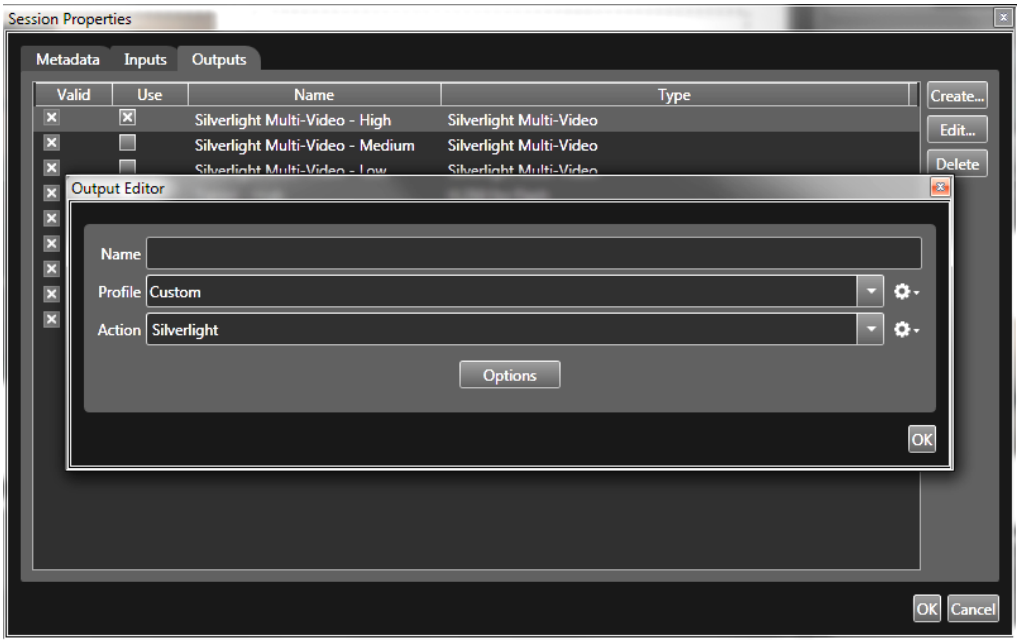


Figure 38 – Output Wizard / Type / Configuration / Name

5. Enter a **Name** for the selected output **Type** if you wish to specify a name other than the default.

6. You may select a pre-defined **Profile** for the selected output **Type**.
These **Profiles** consist of commonly used resolutions and bit rates.

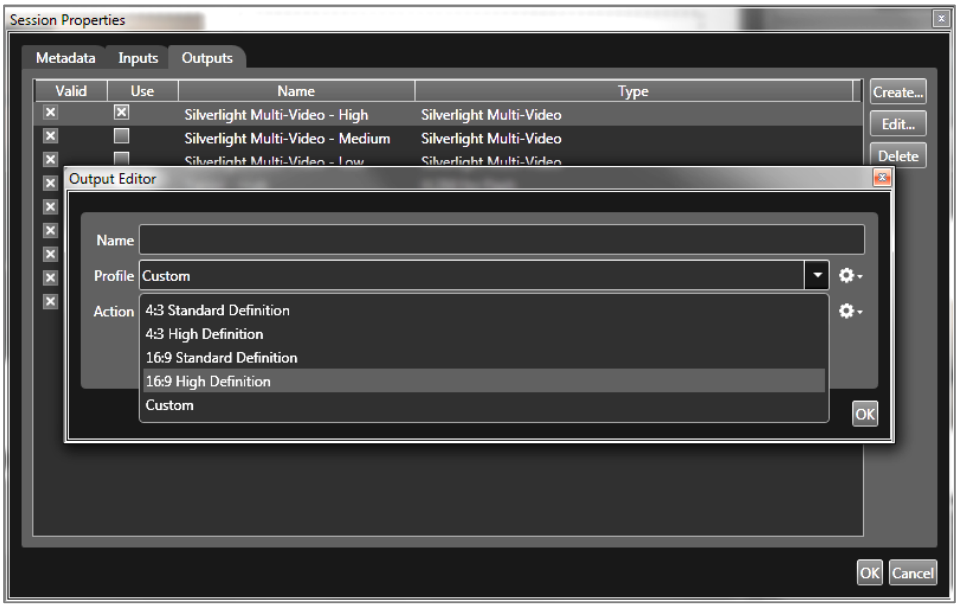


Figure 39 – Output Wizard / Type / Configuration / Profile

7. An **Action** can be specified if one is available for the output type. To select the **Action**, click on the **Action** drop-down menu. For instance, an action may be used to associate a specific player to Silverlight outputs.

Figure 40 – Output Wizard / Type / Configuration / Action

8. You can apply more advanced modifications in the **Output Options** menu by clicking the **Options** button. *Please refer to the appendix which describes Output Options for some specific output types.*

4.3.2 EDITING OUTPUTS

1. To edit an output, select the output you wish to edit in the Outputs tab and click the **Edit** button. You can also double-click the selected output.

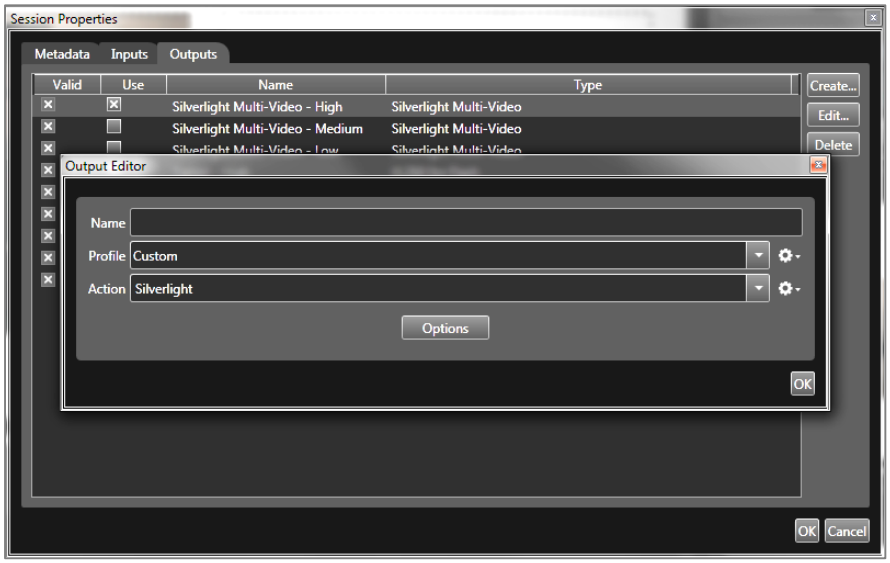


Figure 41 – Output Editor

2. You can modify the name, profile and action of the output. You can also apply modifications in the **Output Options** by clicking the **Options** button. *Please refer to the appendix which describes some specific output types and advanced output options.*

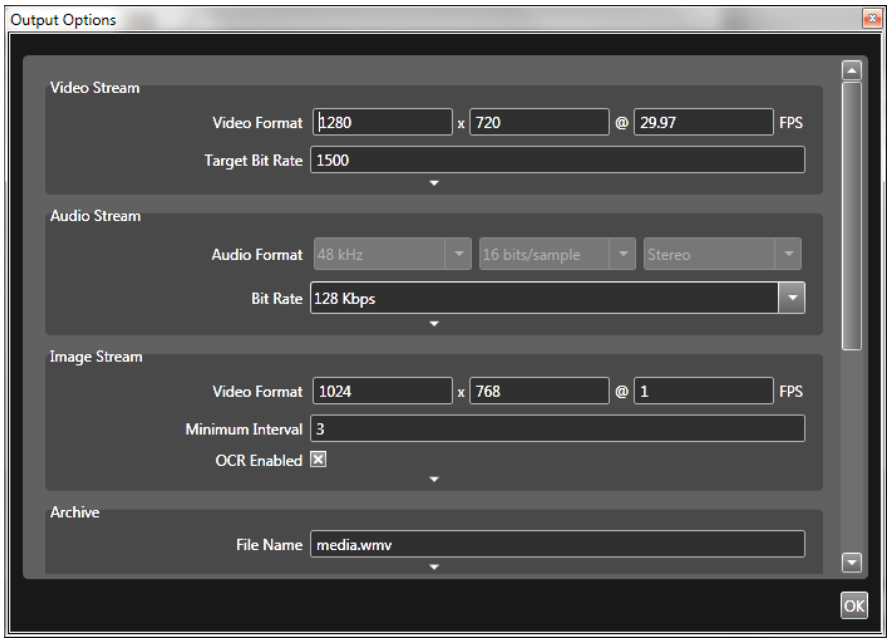


Figure 42 – Output Options

4.3.3 DELETING OUTPUTS

1. To delete an output, select the output you wish to delete in the Outputs tab and click the **Delete** button.

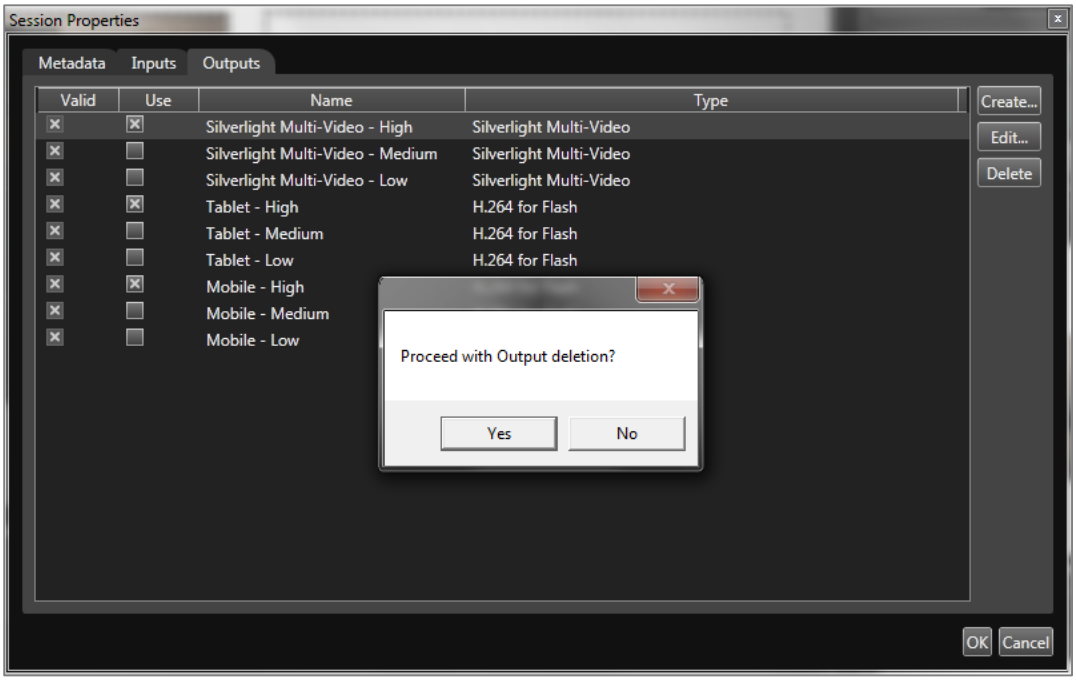


Figure 43 – Output Deletion

2. You will be asked to confirm deletion of the output. The action cannot be undone once you have confirmed deletion of an output.

There is a limit for the number of outputs, which can be processed at the same time. This may vary based on parameters such as Cbox hardware platform, level of motion, inputs resolution / frame rate and encoding settings.

5 MIXING

Each output can be associated with custom audio and video mixes.
This section describes how to customize audio and video mixes.
The figure below identifies major areas of the user interface for custom audio and video mixing purposes.
The user interface features a drag and drop scheme which can be applied from one area to another.

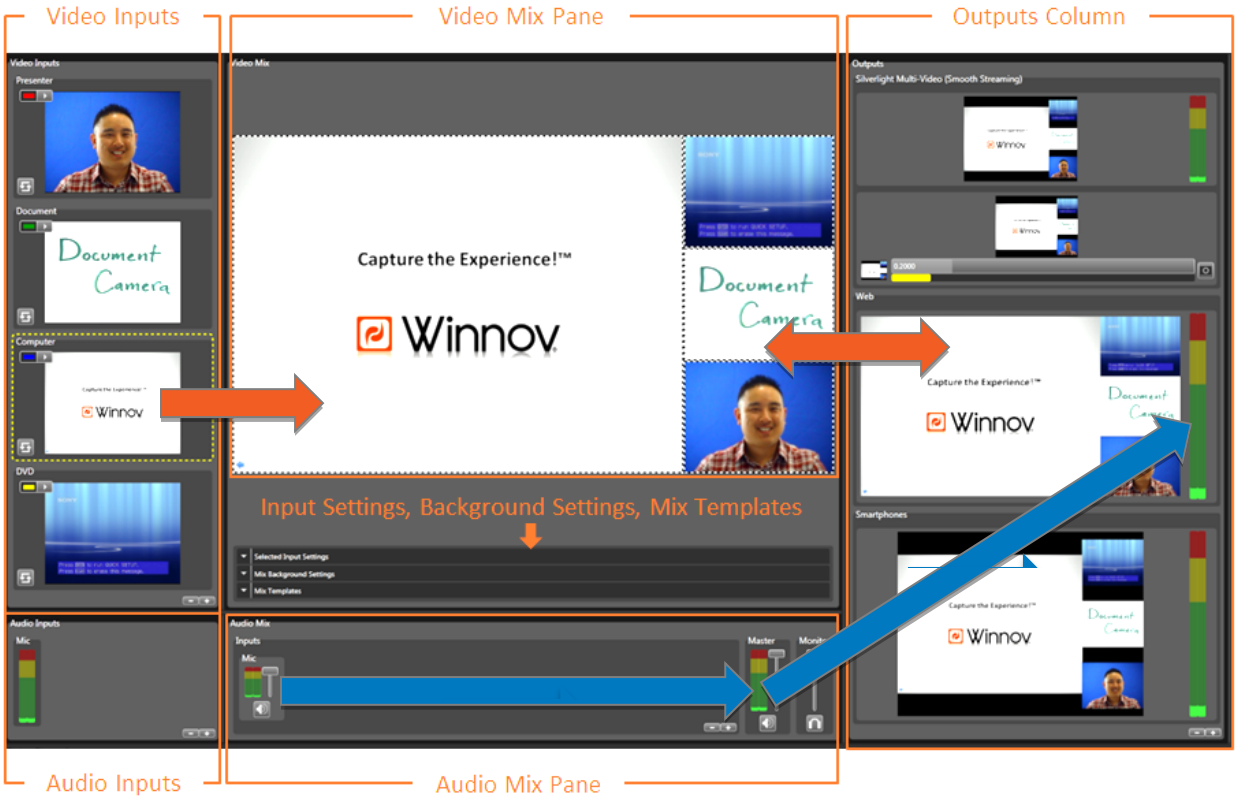


Figure 44 – Major Areas of the User Interface / Drag and Drop Scheme

Video Drag and Drop Workflow

Audio Drag and Drop Workflow

5.1 MIXING VIDEO

A custom video mix consists of one or more video inputs arranged in a canvas for a specific output. Each output can be mixed differently from one another to create the most effective mix for optimized viewing on a particular device (PC or laptop, smartphone, tablet, digital signage, projector). To create a video mix, follow the steps below.

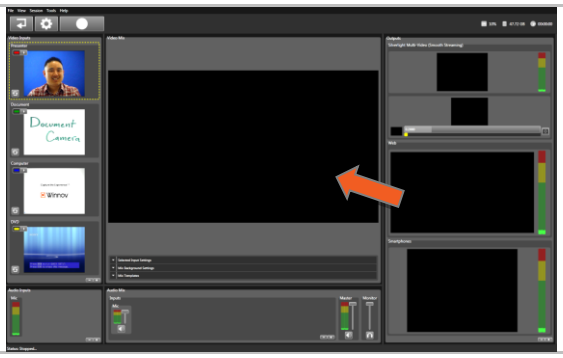
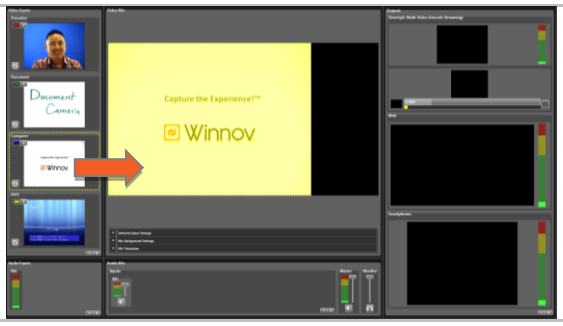
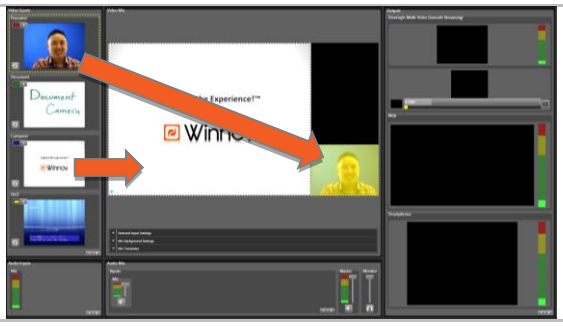
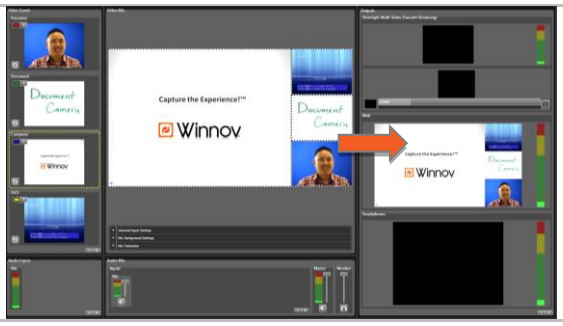
	Select the output video to be mixed by holding the left mouse button down and dragging and dropping the output video from the **Outputs Column** into the **Video Mix Pane**. The output video will automatically update with the correct aspect ratio. The **Video Mix Pane** is where you arrange, scale, and apply custom settings for the video layout.
	Select the video inputs to be mixed by holding the left mouse button down and dragging and dropping the video inputs from the **Video Inputs Column** to the **Video Mix Pane**. **Drop Zones** will automatically scale your video inputs and will be highlighted in yellow. **Bounding Boxes** are shown as dashed lines. Video inputs that are dragged and dropped into the video mix pane will not exceed the bounding boxes.
	Create a custom video mix by arranging each of the video inputs as desired using **Drop Zones.** However, more precise video mixing can be performed and must be done in the **Video Mix Pane**. For more precise video mixing, click on the video input with the right mouse button and hold down. Reposition the video input as desired.
	When your custom video mix is complete, associate the video mix to the desired output by holding down the left mouse button and dragging and dropping the video mix into the appropriate output in the **Outputs Column**.

Figure 45 – Creating Custom Video Mixes

5.2 MIXING AUDIO

If your outputs require a special audio mix, follow the steps below to create the appropriate audio mix. *By default, all audio inputs are set to maximum volume.*

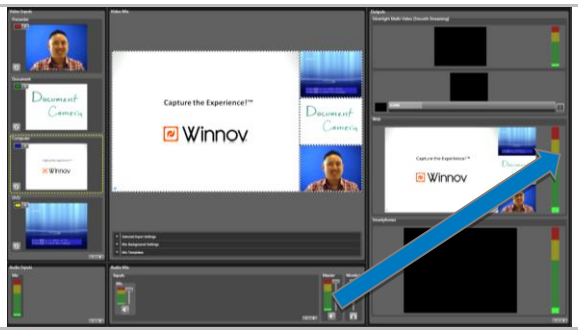
	To mix audio for an output, adjust the audio levels for each audio input as desired in the **Audio Mix Pane**.
	When audio levels are adjusted to your preference, associate the audio mix to the output by holding down the left mouse button and dragging and dropping the Master VU meter from the **Audio Mix Pane** into the VU meter for the appropriate output.

Figure 46 – Creating Custom Audio Mixes

5.3 VIDEO SETTINGS AND MIX TEMPLATES

Amalga gives you robust control over your video mixes. The following section will guide you through the various video settings and how you can save mixes as templates.

5.3.1 VIDEO SETTINGS

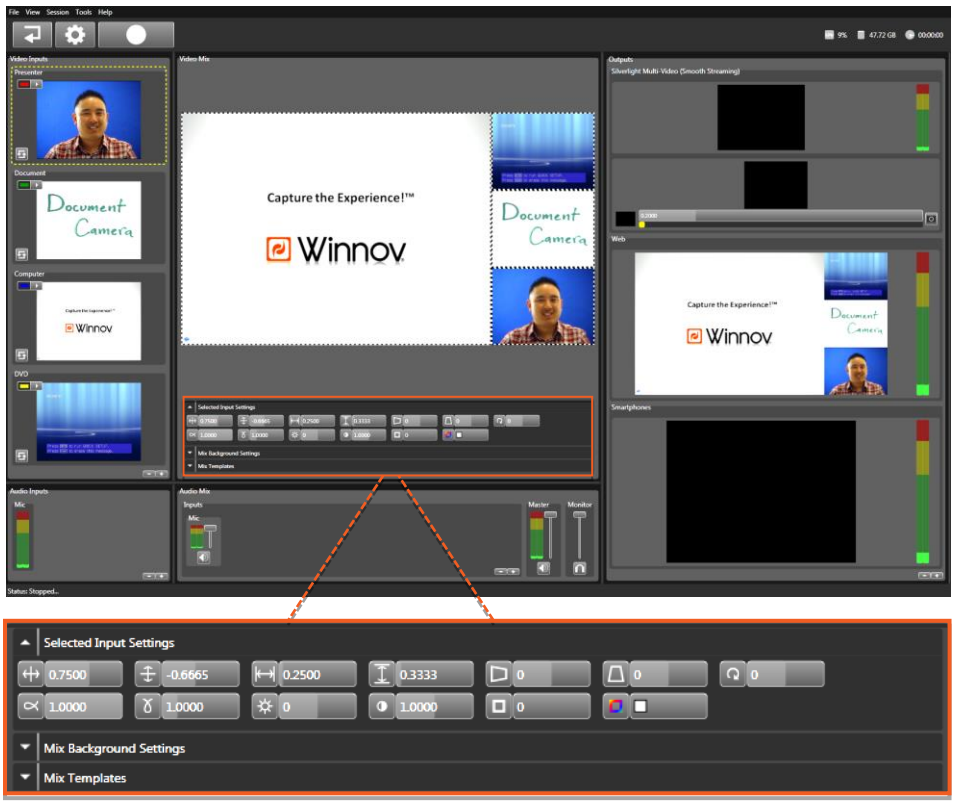


Figure 47 – Video Settings

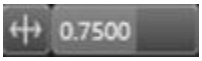
Video settings can be modified in the **Video Mix Pane** for a selected video input. A video input can be selected by:

- Clicking the video input with the left mouse button in the **Video Inputs Column**.
- Clicking the video input with the left or right mouse button in the **Video Mix Pane**.

To resize and reposition the video:

- While in the Video Mix Pane, select the video input to be resized and/or repositioned by holding down the left mouse button and dragging the input into various drop zones.
- While in the Video Mix Pane, select the video input to be resized and/or repositioned by clicking on the left or right mouse button and using the scroll wheel to resize the input. To reposition the video input more precisely, select the video input by holding down the right mouse button and move the input around, releasing the mouse button once arranged in the desired position.
- Select the video input to be resized and/or repositioned by clicking on the left or right mouse button and then manually enter values for width, height, horizontal offset, and vertical offset.

The video settings that can be modified are as follows:

	**Horizontal Offset:** Sets the horizontal offset from the center of the video mix [Range: -5.0000 – 5.0000]
	**Vertical Offset:** Defines the vertical offset from the center of the video mix [Range: -5.0000 – 5.0000]
	**Width:** Sets the width of the video input as it will appear in the Video Mix [Range: 0.0000 – 5.0000]
	**Height:** Sets the height of the video input as it will appear in the Video Mix [Range: 0.0000 – 5.0000]
	**Yaw:** Sets the yaw of the video input relative to the center of the video input [Range: -5.0000 – 5.0000]
	**Pitch:** Sets the pitch or vertical “tilt” of the video input relative to the center of the video input [Range: -5.0000 – 5.0000]
	**Roll:** Sets the roll or rotation of the video input relative to the center of the video input [Range: -5.0000 – 5.0000]
	**Alpha:** Sets the alpha or transparency of the video input [Range: 0.0000 – 1.0000]
	**Gamma:** Adjusts the gamma or gray levels between black and white are displayed for the video input [Range: 0.0000 – 5.0000]
	**Brightness:** Adjusts the overall brightness of the video input. [Range: -1.0000 – 1.0000]
	**Contrast:** Adjusts the overall contrast of the video input [Range: 0.0000 – 2.0000]
	**Border Thickness:** Controls the size of the video input’s border [Range: 0.0000 – 10.0000]
	**Border Color:** Determines the color of the selected video input’s border [Values: hexadecimal value or common color name. e.g., “red”]

The values can be changed either by:

- Hovering of the value area with the pointer, then holding down the left mouse button and moving the mouse left or right to increase or decrease the value of the setting.
- Clicking on the value area with the left mouse button and manually enter in the value.

Note: Clicking on the icon on the left of the value area with the left mouse button will reset it to the default value.

5.3.2 MIX BACKGROUND SETTINGS

You can further customize your video mix by specifying a background color or background image for your mix.

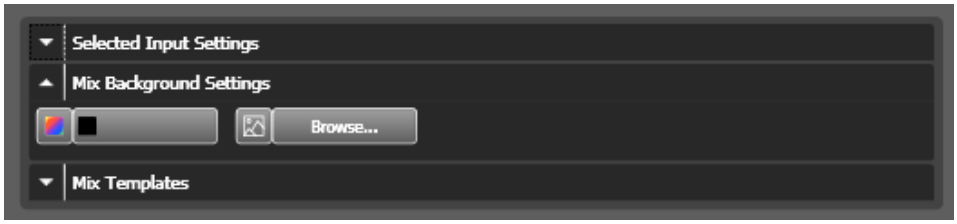


Figure 48 – Adding Mix Background Color / Background Image

Change the color of the background by clicking the **Background Color** button  and entering either a hexadecimal value or common color name (e.g. “red”).

Specify a background image by clicking the **Background Image** Browse button  and selecting an image from your Cbox.

Note: Amalga will stretch the selected **Background Image** to fit the available area in your mix. For best results, select an image with a corresponding aspect ratio.

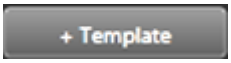
5.4 MIX TEMPLATES

After a video mix has been created, it can be saved as a template.

3.1.1. CREATING A MIX TEMPLATE

1. Ensure that your mix in the **Video Mix Pane** appears as desired.
2. Under the **Video Inputs** column, assign a color to each input. Each input must have a unique color.

3. Expand the **Mix Templates** section

4. Under the **Mix Templates** section, click the **+ Template** button. 

5. A new template representing the layout of your mix will appear in the Mix Templates section. Each color in the template represents a video input in the mix. The template contains the size, position and all other attributes of the video input as it appears in your video mix.

Figure 49 – Creating a Mix Template

5.4.1 APPLYING A MIX TEMPLATE

After a Mix Template has been created, you can apply the template to easily create other mixes. Follow the steps below to apply a Mix Template.

1. Under the **Video Inputs** column, assign each input with the corresponding color of the Mix Template to be applied.

2. Expand the Mix Templates section.

3. Under the **Mix Templates** section, click on the Mix Template to be applied.

Figure 50 – Applying Mix Template

4. The mix in the Video Mix pane should represent the layout based on the colors you assigned to your **Video Inputs**.

6 PRESETS

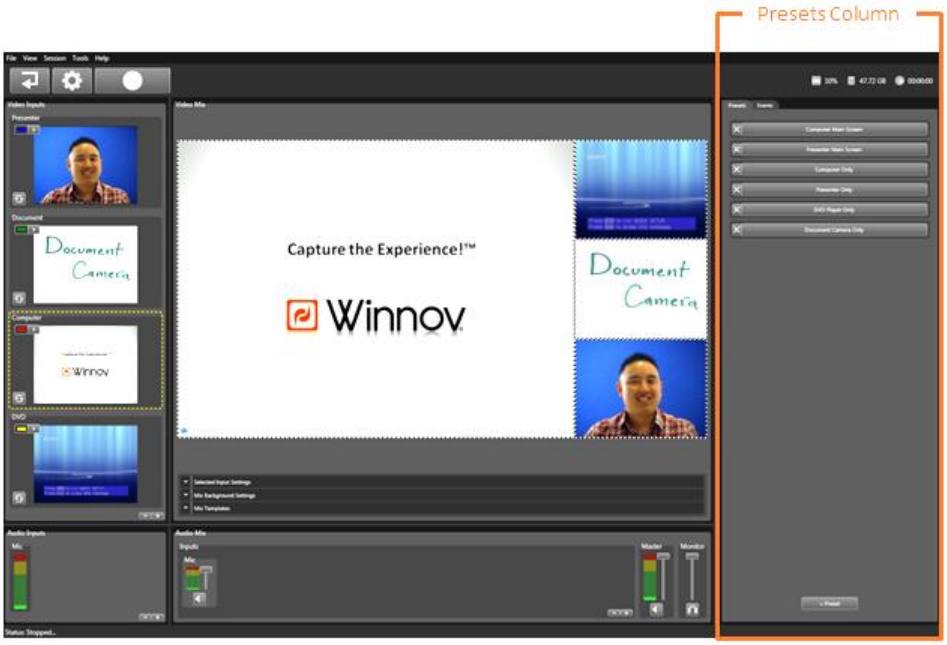


Figure 51 – Presets Column

Presets allow you to switch between different mixes and camera positions for the same output during a recording. They can be made from any mix or output mix.

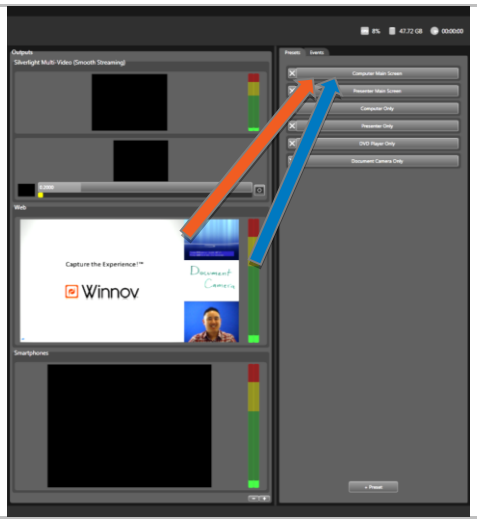
	Click on the **+Preset** button Enter a **Name** Enter a **Description**
	Drag and drop the desired **Video and Audio Outputs** or the **Mix** into the appropriate **Preset**.

Figure 52 – Associating Audio and Video Mixes to Presets

7 RECORDING

7.1 IN THE BUILDER INTERFACE

Clicking on this button  saves the current configuration and brings you back to the Start Menu.

To start a recording, choose the **Touch Session**  and select **"Current"** (selects the last session configuration that was accessed) or a previously saved configuration.

Please refer to the Touch Interface part of this guide.

7.2 IN THE STUDIO INTERFACE

To start a recording, click the Record button.

During the recording, the Record button flashes in red.

While the recording is in process, the presenter can deliver a presentation as he or she normally would. The presets can be selected during the recording to switch among the various audio and video mixes for the outputs.

To stop a recording, click the Record button once more.

TOUCH INTERFACE

TOUCH INTERFACE

The **Touch Interface** is a simplified interface that includes only the functionality a presenter or non-technical operator requires to start and stop a recording or live broadcast and switch among presets created in the **Builder / Studio Interface**.

The **Touch Interface** is designed for presenters and non-technical operators enabling users to easily create a recording and broadcast live without requiring configuration and management of audio and video presets.

Note: Using the Touch Interface requires session configurations to have been previously made in the **Builder / Studio** interface.

1. From Amalga's **Start** screen, select the **Touch Session** button to launch the application.

A list of available **Session Configurations** will appear as buttons.

2. Select a **Session Configuration**.

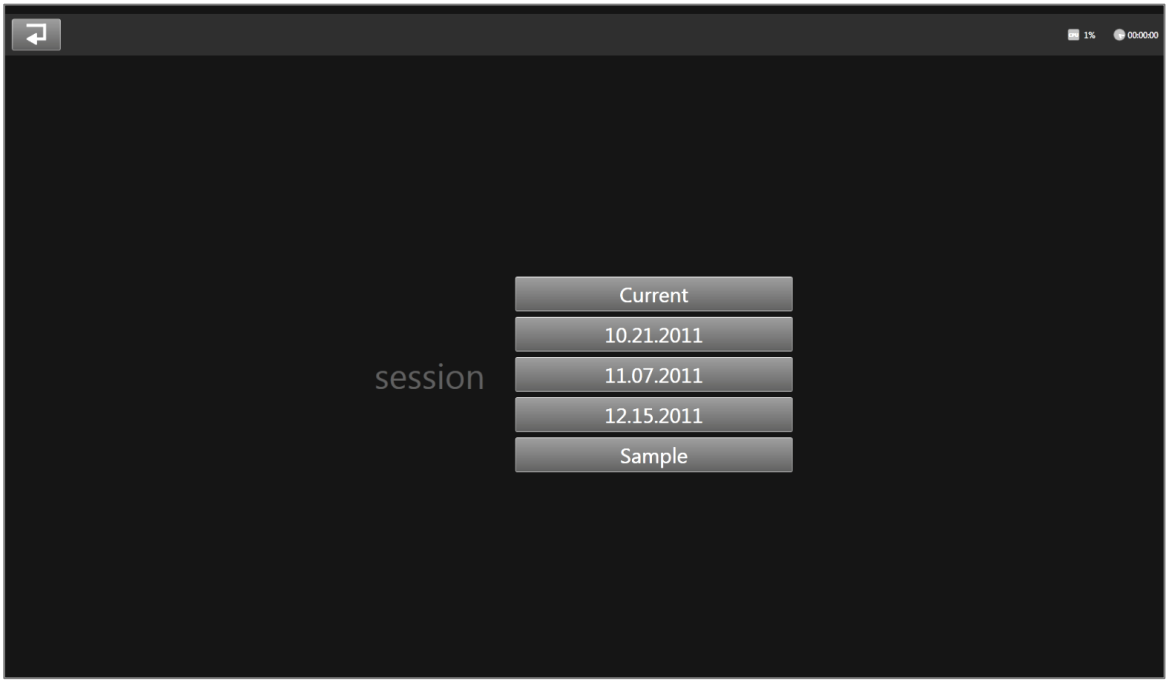


Figure 53 – Touch Session / Start Screen

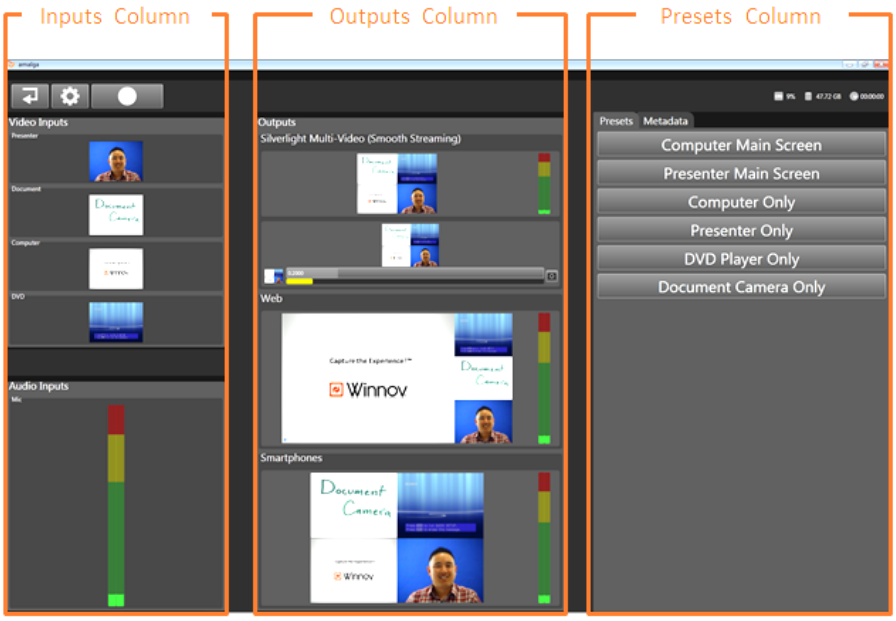


Figure 54 – Touch Session Interface

Clicking this button  brings you back to the Touch Session start screen where you can choose a **Session Configuration**.

PRESETS

Presets created in the **Builder / Studio Interface** will appear in the **Touch Session Interface**.
Each preset contains the functionality defined in the Builder / Studio Interface when they were created.

RECORDING IN TOUCH INTERFACE

To start a recording, click the Record button.

During the recording, the Record button flashes in red.

While the recording is in process, the presenter can deliver a presentation as he or she normally would. The presets can be selected during the recording to switch among the various audio and video mixes for the outputs.

To stop a recording, click the Record button once more.

LIVE BROADCAST

1. Start a **Studio Session**.
2. Open **Session Properties** by clicking this button. 
3. Select the **Outputs** tab.

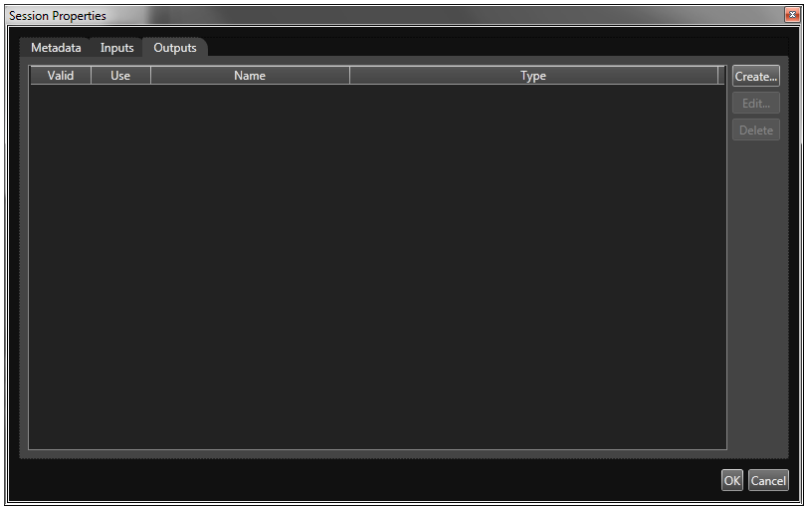


Figure 55 – Session Properties Window / Outputs Tab

4. Click the **Create…** button.
5. Select **Live**.
6. Select the desired type of output for the live broadcast.

Figure 56 – Output Wizard / Category

Figure 57 – Output Wizard / Type / Live

7. Click on the **Next>** button.

8. Complete the fields “name”, “profile”, and select the appropriate “Action” for the live broadcast that you choose.

9. Click on the **Options** button.

10. Complete the broadcast section appropriately and check the **Enabled** checkbox.

Note: Media and / or Web servers must be configured in advance.

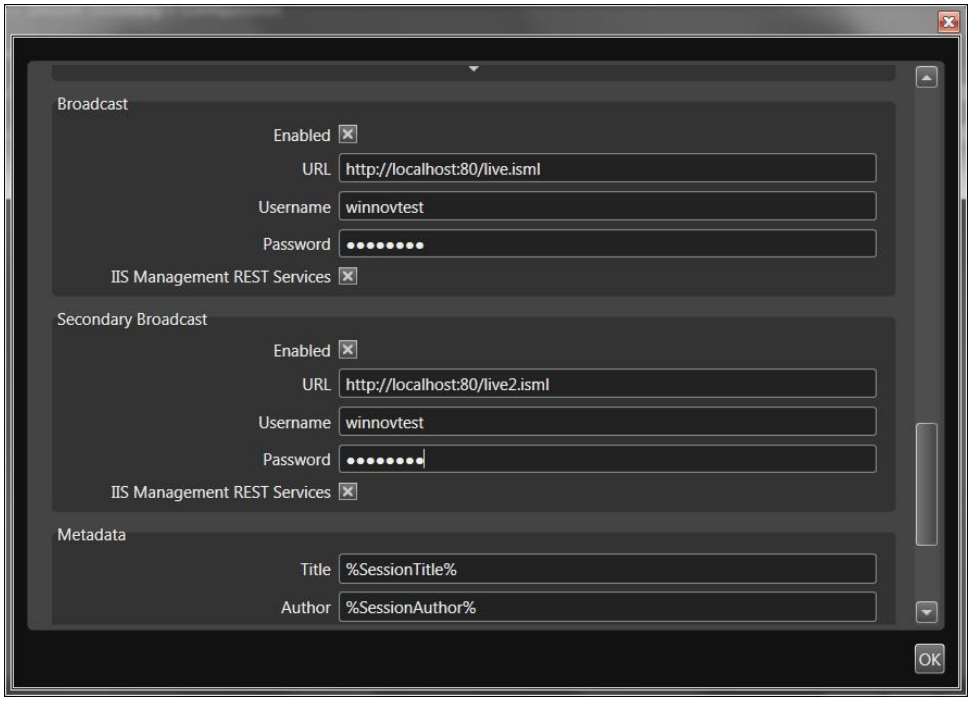


Figure 58 – Output Wizard / Type / Live / Smooth Streaming / Configuration Options

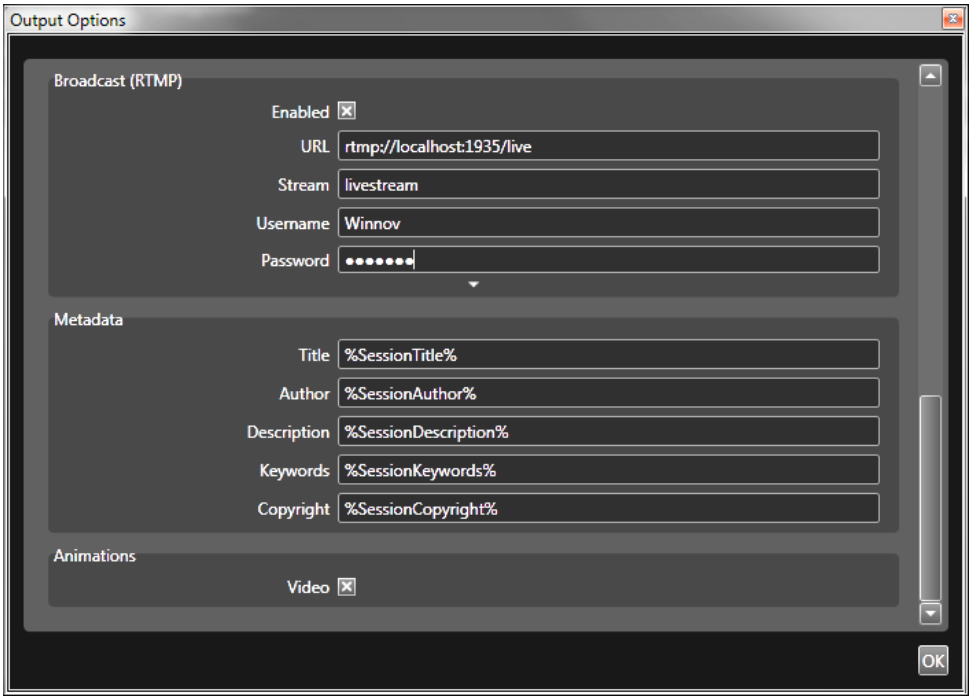


Figure 59 – Output Wizard / Type / Live / RTMP / Configuration Options

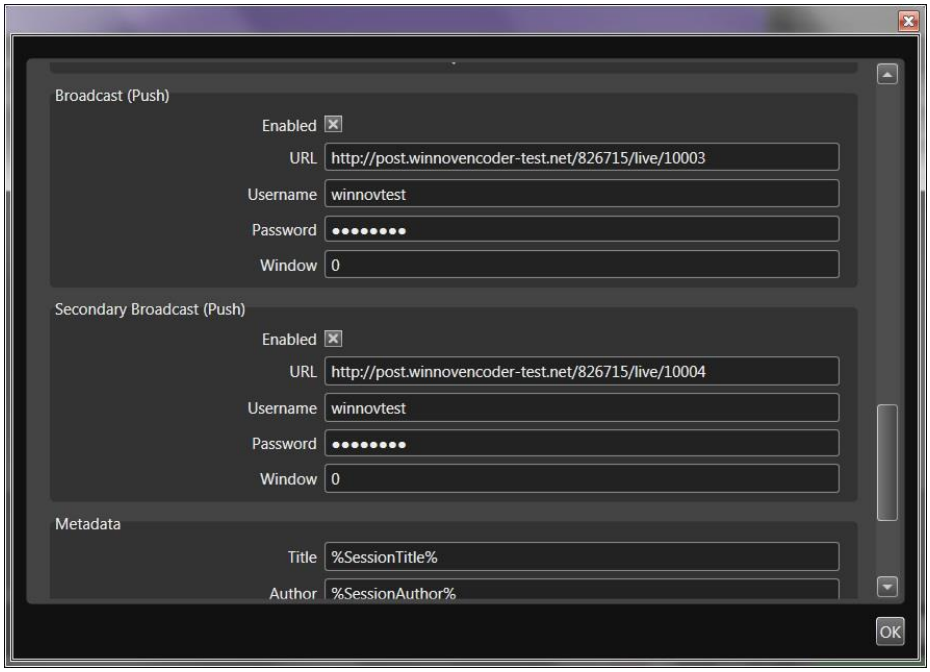


Figure 60 – Output Wizard / Type / Live / HLS / Configuration Options

11. If choosing an adaptive bit rate streaming output, enable the desired number of video streams by checking the appropriate checkboxes. The resolution, frame rate, and target bit rate of each video stream can be modified.

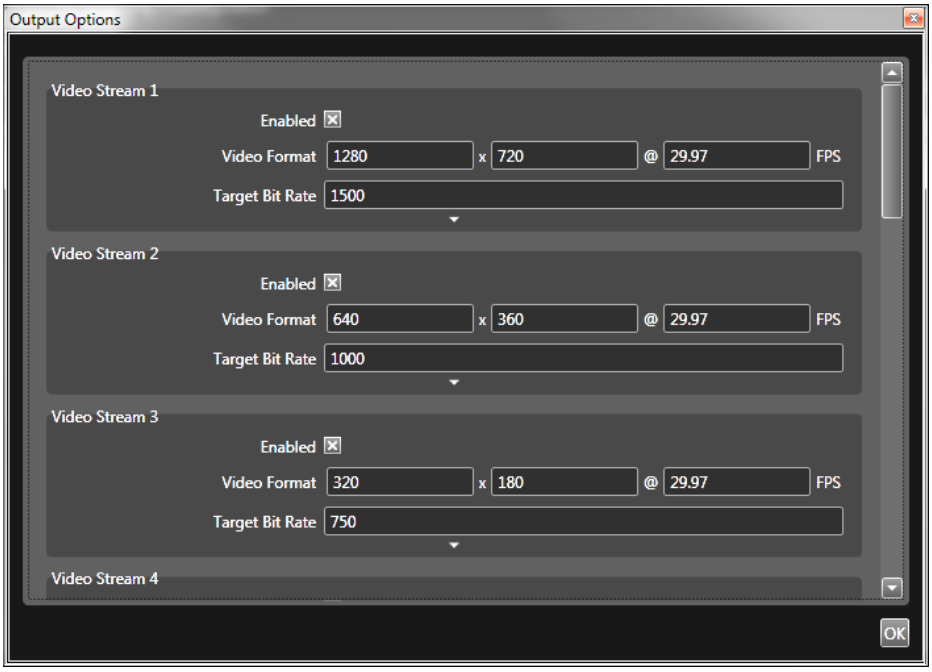


Figure 61 – Output Wizard / Type / Live / Video Stream Options

Windows Media	Silverlight	H.264 for Flash	iPhone
Click on create, select Live, then select Windows Media Output	Click on create, select Live, then select Silverlight Output	Click on create, select Live, then select H.264 for Flash Output	Click on create, select Live, then select iPhone Output
a. Access the options b. Select your Broadcast option: Broadcast (Pull) and/or Broadcast (Push) c. If you choose the Push method: Enter the broadcast URL in the form: http://{IP address of the media server}:{WMS HTTP control protocol port}/{publishing point name} d. Validate your changes	a. Access the options b. Select your Broadcast option: Broadcast (Pull) and/or Broadcast (Push) c. If you choose the Push method: Enter the broadcast URL in URL. http://{IP address of the media server}:{WMS HTTP control protocol port}/{publishing point name} d. Validate your changes	a. Access the options and enable broadcast. b. Streaming video port by default is 1100 and audio port number is 1102. You must use another port number if you do multiple streams. c. Protocol is using RTP (Real-Time Transport Protocol) over UDP (User Datagram Protocol). d. Configure a unicast or multicast stream: i. For unicast, type the address of the server to stream to in the Destination address. ii. For multicast, contact your Network Administrator and set up the Destination address and the SAP announcement parameters. e. You also have the option to use the SDP (Session Description Protocol) file. In the SDP box, enter the URL or destination where the SDP file will be available. f. Validate your changes	a. Access the options and enable broadcast. b. Streaming video port by default is 1100 and audio port number is 1102. You must use another port number if you do multiple streams. c. Protocol is using RTP (Real-Time Transport Protocol) over UDP (User Datagram Protocol). d. Configure a unicast or multicast stream: i. For unicast, type the address of the server to stream to in the Destination address. ii. For multicast, contact your Network Administrator and set up the Destination address and the SAP announcement parameters. e. You also have the option to use the SDP (Session Description Protocol) file. In the SDP box, enter the URL or destination where the SDP file will be available. f. Validate your changes

RTMP	Smooth Streaming	HLS
Click on create, select Live, then select H.264 for Flash Output	Click on create, select Live, then select Smooth Streaming Output	Click on create, select Live, then select HLS Output
a. Access the options and enable broadcast (RTMP). b. Enter the broadcast URL in URL. c. Rename the stream for this instance of the RTMP broadcast. d. Enter the credentials in the Username and Password fields. e. Validate your changes	a. Access the options and enable broadcast. b. Enter the broadcast URL in URL. http://{IP address of the media server}:{IIS media services port}/{publishing point name}.isml c. Enter the credentials in the Username and Password fields. d. Enable the desired number of video streams to be used. e. Modify the resolution and bit rate of each video stream if desired. f. Validate your changes g. If secondary broadcast is enabled, repeat steps a. – e.	a. Access the options and enable broadcast. b. Enter the broadcast URL in URL. http://example-i.akamaihd.net/ {stream_id}/ {event_name} c. Enter the credentials in the Username and Password fields. d. Enable the desired number of video streams to be used. e. Modify the resolution and bit rate of each video stream if desired. f. Specify the duration in which the manifests will be available in the Window field g. Validate your changes h. If secondary broadcast is enabled, repeat steps a. – f. **Please note that the broadcast URL is valid only for Akamai's network.*

DISPLAY/PROJECTOR OUTPUT

1. Start a **Studio Session**
2. Open **Session Properties** by clicking this button. 
3. Select the **Outputs** tab.

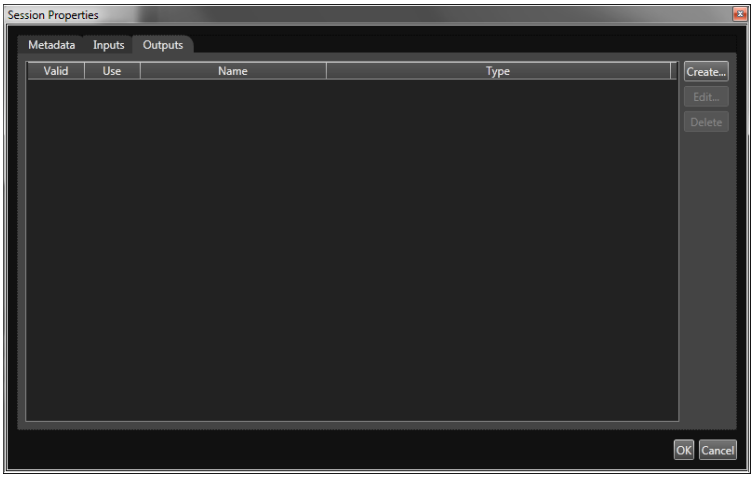


Figure 62 – Studio Session / Session Properties / Outputs Tab

4. Click on the **Create…** button.
5. Select **A/V Equipment**.
6. Select **Display/Projector**.

Figure 63 – Output Wizard / Category

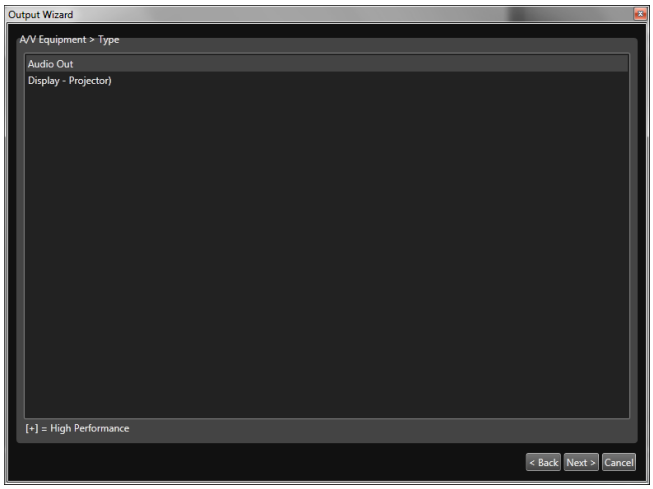


Figure 64 – Output Wizard / Category / A/V Equipment

7. Click on the **Next>** button.
8. Complete the fields “name”, “profile”, and select the appropriate “Action.”
9. Click on the **Options** button.
10. You can select which **Screen** you want the output to be displayed on. You can also modify the screen resolution, frame rate, and enable/disable video animations.

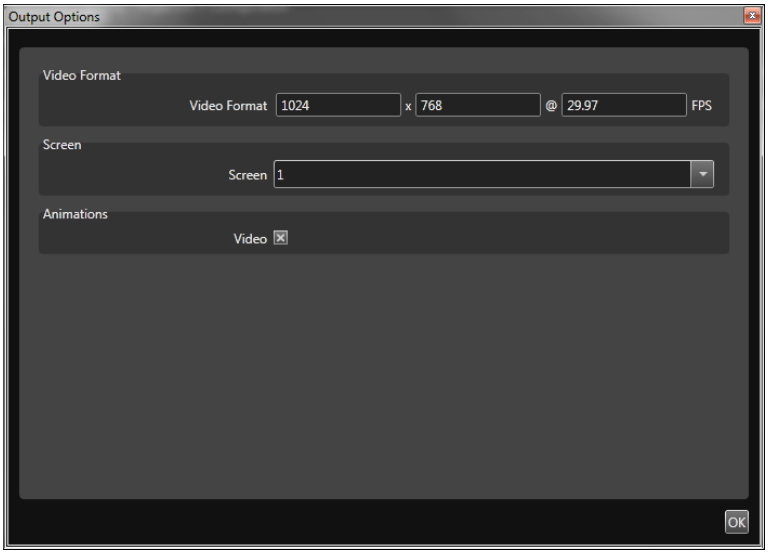


Figure 65 – Output Wizard / Category / A/V Equipment

11. Click on the **OK** button.

UNLIMITED ACTIVE OUTPUTS

Allows you to record more than one output at a time.

SCHEDULER

The **Scheduler** allows you to schedule recordings in advance. Scheduled recordings can be configured to repeat daily or weekly. This is useful for recording regularly scheduled events such as classroom lectures.

Figure 66 – Example of Scheduled Recordings for One Classroom

To create a new scheduled recording, follow the steps below.

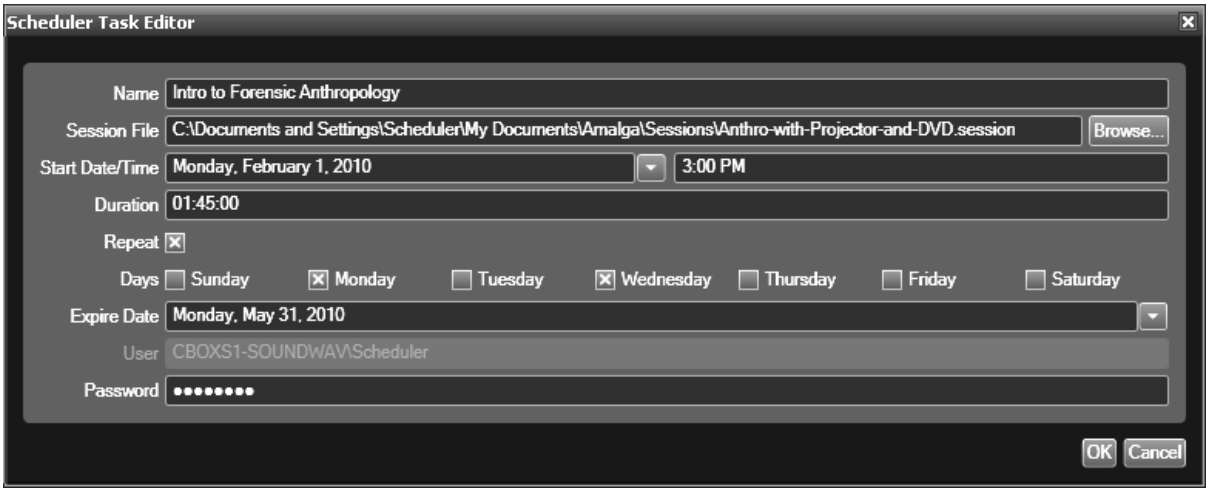


Figure 67 – Scheduler Task Editor

From the **Scheduler** dialog, click the **Create…** button to launch the **Scheduler Task Editor**.

In the **Scheduler Task Editor**, enter a **Name** for the scheduled recording.

Select the appropriate **Session File** for the scheduled recording.

Specify the **Start Date/Time** for when the recording is to start. A calendar will appear when you click on the white arrow next to the Date field for easy date selection.

Specify the **Duration** for which the recording should last in *hh:mm:ss* format.

Check the **Repeat** checkbox if the recording is to occur regularly.
If **Repeat** is checked, specify which **Days** of the week the recording should occur.

For repeating recordings, specify the **Expire Date** for the recording. The Expire Date is the date after which the recording will no longer occur and will be removed from the Scheduler.

Enter the **Password** for the Windows user account that is scheduling the recording. The Windows user name appears in the User box above the Password field.

Important Notes on Working with the Scheduler

Only a user with Administrative privileges can access Amalga's scheduling features.

Scheduling a recording requires a password. If a user account is created under which scheduled recordings will run, a password is required for that user.

Scheduled tasks will only run on the Windows account that created the scheduled recoding. If recordings were scheduled under the Administrator account, you must be logged into the Administrator account for those recordings to run.

When scheduling a recording, ensure that the recording does not overlap a previously scheduled recording. Please note that the scheduler does not work on a profile (Administrator/User) without a password.

EVENTS

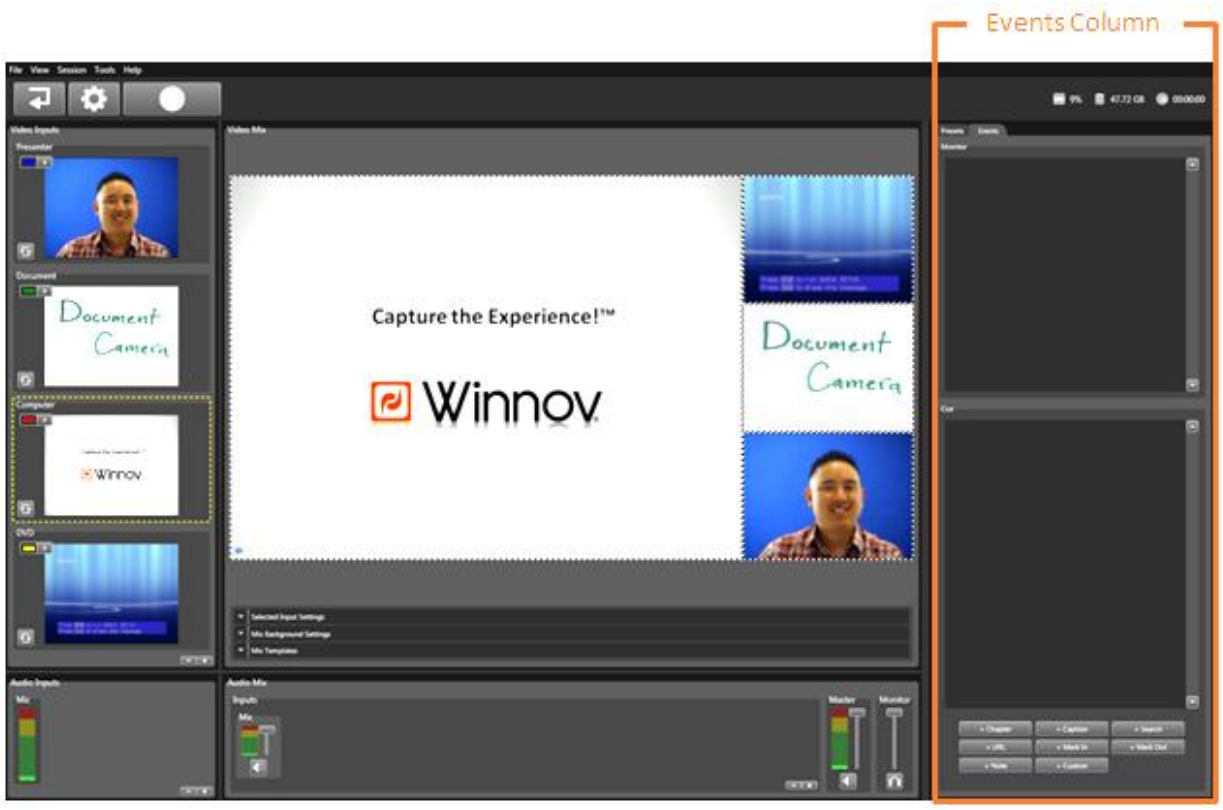


Figure 68 – Events Column

Events can enhance a presentation with the ability to add meaningful data to the presentation during a recording. A user/presenter can create a chapter at any point in a presentation, insert captions which will appear in the close captioning area of the Silverlight player, or insert search terms allowing the viewers to search on a keyword.

A user/presenter can also add post-production **Events** to signify to the video editor, including specific notes for the editor as well as segments of the video to be removed via Mark In/Out feature.

The **Events** feature is available under the **Events** tab in the Studio Interface.

To create an event:

In the **Cue** pane, click on an Event button (Chapter, Caption, Search, URL, Mark In, Mark Out, Note, Custom).

Enter the appropriate text in the field provided.

Specify a time for the event or click the button to set the current time of the recording.

Click on the button to apply it to the timeline. The Event should now appear in the **Monitor** pane.

To remove an event, click on the button in the **Monitor** pane and it will appear back in the **Cue** pane.

Click the button to cancel the Event completely.

Figure 69 - Adding Events

The following list describes each of the **Events** that can be added during a recording.

- **CHAPTERS**

Chapters can be added to specify areas in a recording a presenter may wish to identify as a key segment in a discussion. By adding a title, a chapter is created with the title the user/presenter has specified.

Note: Amalga will also create chapters automatically based on text captured from images captured.

Usage example: A presenter may discuss a single image (or presentation slide) at length. The user/presenter could create **Chapter** events at different times during the discussion of that slide so that viewers can navigate to specific points during that slide.

- **CAPTION**

A **Caption** can be added to a recording by sending a **Captions** event. These captions appear in the closed captioning area typically occupied with closed captioning text that appear when the **CC** button in the Winnov Silverlight players is pushed.

Usage example: A user/presenter can take advantage of this feature by adding captioning notes to display to the audience. This could be useful to display text to highlight key concepts or to display a mathematical formula.

- **SEARCH**

Search terms can be added to a recording to make any segment of a presentation searchable.

Usage example: A presenter with a speech-only discussion (slides not used) will not have automatic chapter creation or searchable text. The user/presenter may wish to insert searchable keywords pertaining to various segments of the discussion so the viewer can search for that portion of the presentation.

- **URL**

A **URL** event can be sent during the recording if a presenter wishes to add a URL as a resource during a presentation.

Usage example: A presenter may have a web resource available that is not available in a presentation slide. To make this URL available to the viewer, the user/presenter can send a **URL** event to provide a link of the online resource to the viewer.

Note: To use the URL event requires a custom script to be written to launch a browser window.

- **MARK IN / MARK OUT**

The **Mark In** and **Mark Out** events are used for post-production of a recording. Sending these events during a recording will mark the timeline with “In” and “Out” and is viewable in Microsoft’s Expression Encoder. If the presentation requires editing, an editor can view the timeline for these “In” and “Out” marks and remove portions of the video accordingly.

Usage example: A user/presenter can start a recording as the audience is being seated and may only want to keep the speaking portions of the recording. The user/presenter can **Mark In** at the moment the actual presentation is started and **Mark Out** during intermission or at the end of the presentation. The

user/presenter can Mark In and Out as many times as needed to produce a single video without intermissions or other irrelevant events.

- **NOTE**

The **Note** event is used to provide notes for a video editor for post-production of a recording if any is required. The note will appear within Microsoft Expression Encoder's Script Commands pane.

Usage example: The user/presenter can send a **Note** event during a recording to flag a segment of the video to a post-production editor. This note can specify details about a part of a recording that the presenter would like an editor to review and edit in Expression Encoder 4.

- **CUSTOM**

The **Custom** event is used to add a custom script into the timeline, which can be used to launch an event.

Usage example: With a **Custom** script event embedded into the video timeline, a script can be written to "listen" for custom scripts to run a command at strategic times to launch a survey window, for example.

OPTIONAL FEATURES

LIST OF OPTIONAL FEATURES

The following features are optional. They may be disabled or not supported on your Cbox.
A feature may be disabled because this is a lower cost Cbox. However, it is possible to enable a feature upon approval of your account manager at Winnov.
A newer feature may not be supported because this is an older Cbox platform. However, it is possible to upgrade your hardware within the conditions of your Cbox support plan.

Additional Input Channels	**High Definition Inputs** - Some appliances have two HD inputs (RGB/DVI/HDMI/Component and HD/3G-SDI) enabled by default. With the **Additional Input Channels**, you can enable up to two more HD inputs. **Audio Inputs** - Some appliances have two audio inputs (Analog, SDI embedded audio channels, HDMI embedded audio channels) enabled by default. With the **Additional Input Channels**, you can enable up to two more audio (analog and embedded audio) inputs.
Additional Session Outputs	Allows you to use more than one output (for recording, live broadcast streams, or audience/projector). - Some appliances have one active session output enabled by default. With the **Additional Session Outputs**, you can enable up to two more session outputs.

APPENDIX

1 ACTIONS PACKAGE

1.1. WHAT IS THE ACTIONS PACKAGE?

The Actions Package contains a set of scripts, which are run when you start and/or stop a recording.

An Action is typically selected to determine which player will be created for specific output types. When creating an output in Amalga, you can specify an Action under the Actions drop-down menu if any Action is available for that output.

1.1. INCLUDED ACTIONS IN THE PACKAGE

Action	Description
HTML_Classic	HTML player with embedded Windows Media Player and image stream
HTML_Classic_Live	Live Windows Media streaming player with image stream
HTML5	HTML5 player for Silverlight H.264 output with fallback to Silverlight
Silverlight	Silverlight_Duo player: dual video player displaying two video inputs
	H.264 version of the Silverlight_Duo player
	Live streaming version of the Silverlight_Duo player
	Smooth streaming version of the Silverlight_Duo player
	Live smooth streaming version of the Silverlight_Duo player
	Silverlight_Multiview: multi-video player with moveable video windows for user-controlled viewing
	H.264 version of the Silverlight_Multiview player
	Live streaming version of the Silverlight_Multiview player
	Smooth streaming version of the Silverlight_Multiview player
	Live smooth streaming version of the Silverlight_Multiview player
	Silverlight Video + Images player: player displaying one input as video and a second input as images
	H.264 version of the Silverlight_Video+Images player
	Live streaming version of the Silverlight_Video+Images player
	Smooth streaming version of the Silverlight_Video+Images player
	Live smooth streaming version of the Silverlight_Video+Images player
Hinted_Stream	Hinting option for H.264 outputs

Note: All sample HTML5 and Silverlight players display chapters and thumbnails as captured by Amalga. They are indexed and searchable.

1.2. INSTALLATION INSTRUCTIONS

To install the Actions Package:

1. After downloading the package, make sure to:
- Right-click on the zip file
- Go to Properties and click "Unblock" (File coming from another computer might be blocked to help protect your computer.)

2. Unzip and copy the contents of this archive.

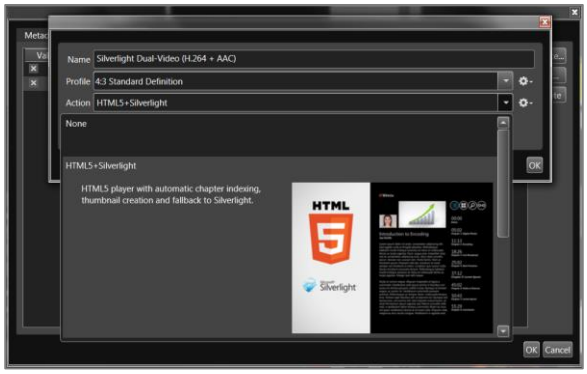
3. Paste the contents into the system's Actions folder found in the path below:

- Windows 2003: C:\Documents and Settings\All Users\ApplicationData\Amalga\Actions
- Windows 2008 and 7: C:\ProgramData\Amalga\Actions

Create the appropriate directories if they do not exist.

4. The Actions are now ready to use and will appear under the Action dropdown menu if the Action is associated with the selected output.

Below is an example of the **HTML5 + Silverlight action** associated with the **Silverlight H.264 output:**



Below is an example of the **Silverlight action** associated with the **Silverlight H.264 output:**

2 CUSTOMIZING THE SILVERLIGHT PLAYER

The Silverlight player can be customized and branded. A custom logo can be added and changes to the color scheme can be applied to the player's background, foreground, header, and control bar.

2.1. BRANDING THE PLAYER

To brand the player with a custom logo:

1. Go to the Actions folder and then navigate to "Silverlight/Player".

2. In the player folder, delete the existing "branding.png" image, then add the desired image to be used for branding and rename it to "branding.png."

3. The custom logo will now appear in the upper left-hand corner of the Silverlight player.

2.2. MODIFYING THE COLOR SCHEME AND ICONS

Player.xaml contains a Silverlight resource dictionary. Named values are used to customize the look of the Silverlight player(s). Basic color changes and modifications to icons can be applied. Color changes are done using the named brushes.

Note: The layout cannot be modified.

For information on Silverlight brushes, please visit:
http://msdn.microsoft.com/en-us/library/system.windows.media.brush(v=vs.95).aspx

The various named brushes are described below.

PlayerBackgroundBrush	The background for the whole player
PlayerForegroundBrush	The foreground for the whole player (influences text)
PlayerBrandingBackgroundBrush	The background for the branding area. Typically you would set this such that it would be appropriate for your branding image.
PlayerControlsBackgroundBrush	The background for the controls area. Note that the default value is a LinearGradientBrush. This could just as easily be a SolidColorBrush.
PlayerControlsForegroundBrush	The foreground for the controls area (influences text)
PlayersIconsBrush	Used only within this dictionary. Used to quickly change all the icons.

Controls.xaml contains a Silverlight resource dictionary. This is essentially a partial Silverlight "theme". The resource dictionary contains only control templates for controls which are used in the player(s). It is possible to swap in a complete theme (containing control templates for most basic controls and toolkit controls).

Note: For most basic color changes, **Player.xaml** should be the first point for modification.

To make modifications to the color scheme and icons:

1. Go to the Actions folder and then navigate to “Silverlight/Player”.
2. Change the file name extension of player.xap to player.zip. When asked if you want to change the file name extension, answer Yes.
3. Open player.zip.
4. Copy Player.xaml and then press the back button.
5. Paste Player.xaml in the “Silverlight/Player” directory
6. Use a text editor (such as Notepad) to edit Player.xaml

7. Modify the desired fields by entering in hexadecimal values or basic color names (e.g., black, white, blue).

8. Save the changes.

9. Change the file name extension of player.zip back to player.xap. When asked if you want to change the file name extension, answer Yes.

10. The Silverlight player will now apply and display the changes made to the color scheme and icons.

    Below is an example of a branded player with various modifications applied to it.

3 HTML5 PLAYER BROWSER AND OPERATING SYSTEM COMPATIBILITY

3.1 HTML5 DESKTOP PLAYER COMPATIBILITY

The following tables indicate the various desktop operating system versions and web browser versions which are compatible with the Winnov HTML5 rich media desktop player.

Desktop Operating System	Windows XP	Windows 7	Windows 8	Windows 8.1
Web Browser Version	Firefox 22.0	IE 10.0	Firefox 22.0	IE 11.0
	Firefox 23.0	IE 11.0 Release Preview	Firefox 23.0	Firefox 22.0
	Firefox 24.0	Firefox 22.0	Firefox 24.0	Firefox 23.0
	Firefox 25.0 beta	Firefox 23.0	Firefox 25.0 beta	Firefox 24.0
	Safari 5.1	Firefox 24.0	Safari 5.1	Firefox 25.0 beta
	Chrome 25.0	Firefox 25.0 beta	Chrome 25.0	Safari 5.1
	Chrome 26.0	Safari 5.1	Chrome 26.0	Chrome 25.0
	Chrome 27.0	Chrome 25.0	Chrome 27.0	Chrome 26.0
	Chrome 28.0	Chrome 26.0	Chrome 28.0	Chrome 27.0
	Chrome 29.0	Chrome 27.0	Chrome 29.0	Chrome 28.0
	Chrome 30.0	Chrome 28.0	-	Chrome 29.0
	Chrome 31.0	Chrome 29.0	-	-

Desktop Operating System	OSX Snow Leopard	OSX Lion	OSX Mountain Lion
Web Browser Version	Firefox 22.0	Firefox 22.0	Firefox 22.0
	Firefox 23.0	Firefox 23.0	Firefox 23.0
	Firefox 24.0	Firefox 24.0	Firefox 24.0
	Firefox 25.0 beta	Firefox 25.0 beta	Firefox 25.0 beta
	Safari 5.1	Safari 5.1	Safari 5.1
	Chrome 25.0	Safari 6.0	Safari 6.0
	Chrome 26.0	Chrome 25.0	Chrome 25.0
	Chrome 27.0	Chrome 26.0	Chrome 26.0
	Chrome 28.0	Chrome 27.0	Chrome 27.0
	Chrome 29.0	Chrome 28.0	Chrome 28.0
	Chrome 30.0	Chrome 29.0	Chrome 29.0
	Chrome 31.0	Chrome 30.0	Chrome 30.0
	-	Chrome 31.0	Chrome 31.0

3.2 HTML5 Mobile and Tablet Player Compatibility

The following tables indicate the various mobile and tablet device types and operating system and browser versions which are compatible with the Winnov HTML5 rich media mobile player.

Mobile & Tablet Device Type	Apple	Android	Windows	Blackberry
Operating System & Browser Version	iOS Safari 3.2	Android 2.1	IE Mobile 10	Blackberry 7
	iOS Safari 4.0	Android 2.2	-	Blackberry 10
	iOS Safari 4.1	Android 2.3	-	-
	iOS Safari 4.2	Android 3.0	-	-
	iOS Safari 4.3	Android 4.0	-	-
	iOS Safari 5.0	Android 4.1	-	-
	iOS Safari 5.1	Android 4.2	-	-
	iOS Safari 6.0	Android 4.3	-	-
	iOS Safari 6.1	-	-	-
	iOS Safari 7.0	-	-	-

3.3 HTML5 PLAYER FALLBACK AND FALL FORWARD

During video playback, the HTML5 desktop player will automatically fall back to the Silverlight player if HTML5 video is not supported by the web browser.

When playing back HTML5 video on a desktop, tablet or mobile phone, the device is automatically detected and the HTML5 player will apply the layout associated for that device.

4 CUSTOMIZING THE HTML5 PLAYER

The HTML5 player can be customized and branded. A custom logo can be added and changes to the color scheme can be applied to the player's:

- Background
- Fonts
- Buttons
- Icons
- Controls

The HTML5 player's main file is index.html. It contains and uses references to jquery, jqueryUI, jquery.dialogextend, and the raphael svg library.

The HTML5 player is branded through the "config.js" file located in the js folder.

For the HTML5 player, it is possible to create your own branding.css file in order to brand the player. Just name the file "branding_mybrandingname.css." A branding file may be called by adding "?branding=mybrandingname" after the index.html in the location bar of your browser. This allows for one player to be branded multiple ways. If branding isn't passed to the player, it defaults to Winnov branding.

You can also pass the weburl and mediaurl to the player by passing them through the http query strings. These urls must be properly encoded.

4.1 PLAYER FOLDER CONTENTS

The various folders and the contents of each are described below:

Source folder contents	Description
branding.png	Branding for the Silverlight player
index.html	Main file for the HTML5 player
index_phone.html	File used for mobile phones
index_tablet.html	File used for tablets
player.htm	Silverlight player
WinnovLogo_white.svg	Scalable branding file for the default Winnov branding

Note: With the branding scheme, the branding image information is entered into the branding_mybranding.css file. Your branding file can be named whatever you like and can be any file format supported by web browsers (jpg, png, gif, svg).

CSS folder contents	Description
ui-lightness folder	This folder is for the jquery-ui package
branding.css	Default Winnov branding
layout.css	Layout file for desktop player
layout_phone.css	Layout file for mobile phone player
layout_tablet.css	Layout file for tablet player

Icons folder contents	Description
icon-chapters.svg	All the svg icons for the mobile page icons. These files will likely go away in favor of dynamically generated raphael based svg files for easier color branding of icons.
icon-chapters-highlighted.svg	
icon-close.svg	
icon-links.svg	
icon-links-highlighted.svg	
icon-search.svg	
icon-search-highlighted.svg	
icon-thumbnails.svg	
icon-thumbnails-highlighted.svg	

JS folder contents	Description
config.js	user editable configuration file for the players (currently desktop only)
iscroll.js	MIT licensed file to enable touch scrolling on mobile devices
jquery.dialogextend.min.js	MIT licensed extension for jquery
jquery.-1.9.1.js and jquery-min.js	MIT licensed jquery library. These will be consolidated to just jquery-min.js
jquery-ui-*.js**	MIT licensed jquery library
pagefunctions_*.js**	Winnov pagefunctions. These will be consolidated.
raphael.min.js	MIT licensed raphael graphics library. This will eventually be moved to the much smaller minified version.
Silverlight.js	Microsoft provided library for embedding Silverlight via javascript.
jquery.fullscreen-0.3.5.min.js	fullscreen plugin for jquery

4.2 BRANDING THE HTML5 PLAYER

To brand the HTML5 player:

1. Navigate to the css folder.
2. Make a copy of “branding.css” and rename it to “branding_mybranding.css.”
3. Modify branding_mybranding.css to suit your needs and to point to your logos.

To load your branding file:

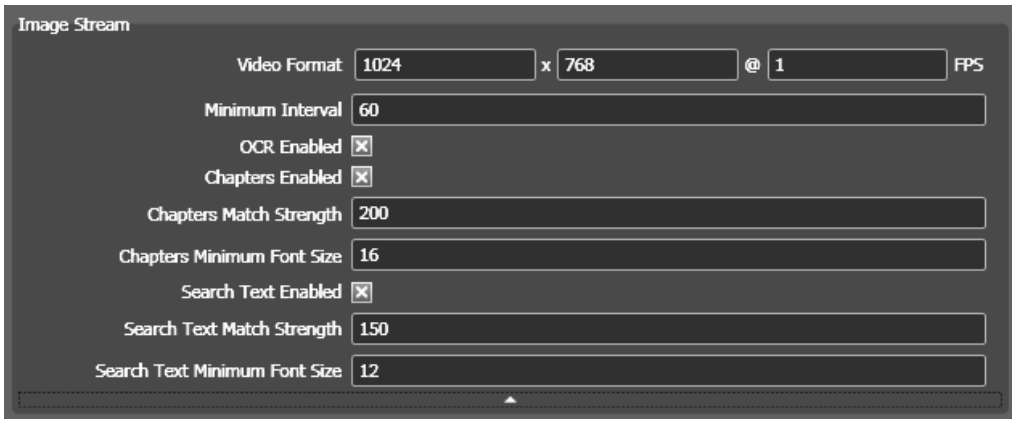
1. Call the page using “http://mypage.com/index.html?branding=mybranding”

5 ABOUT THE OCR

OCR (Optical Character Recognition) can be enabled in the options of specific output types such as Silverlight.

It allows you to translate scanned images of handwritten, typewritten or printed text into machine-encoded text.

OCR systems require calibration to read a text.



OCR is most effective using large, black text on a white background. It is recommended to test with the medium intended to be captured (i.e. PowerPoint, document camera) and adjust the OCR settings accordingly.

E.g., for a PowerPoint presentation we advise:
Background color: light (white, light grey)
Text color: Black
Text font size: 32
Title font size: 44-46
Amalga OCR sensitivity: 0.2

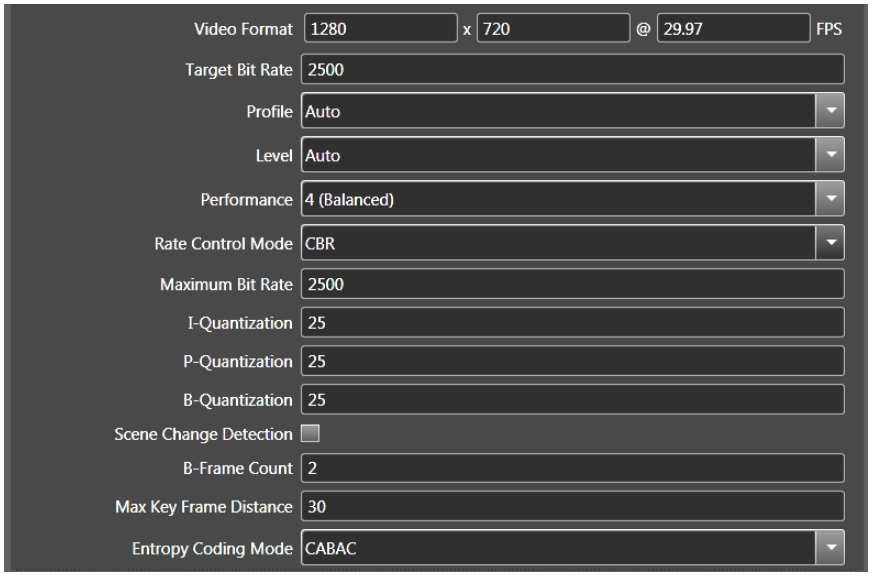
Note: OCR sensitivity will largely depend on the amount of change that occurs between slides.

6 ADVANCED OUTPUT OPTIONS

6.1. ADVANCED VIDEO STREAM OPTIONS

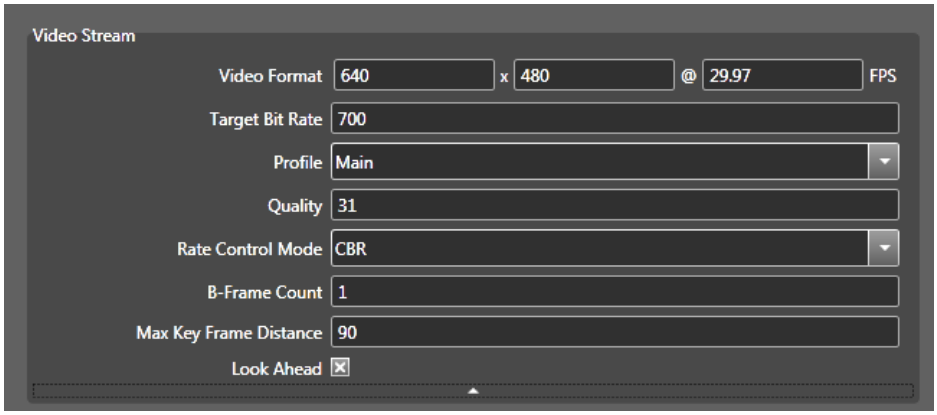
Advanced **Video Stream** options for **H.264** are described below.

Video Format	Resolution and frame rate
Target Bit Rate	Target compression bit rate in Kbps
Profile	Use the highest profile supported by all target platforms and devices.
Level	Device conformance level
Performance	Lower values produce much lower quality and higher values may result in much longer encoding time with only small improvements in quality. For live encoding, use the highest value that does not drop frames.
Rate Control Mode	VBR is useful for storing content for later processing, but has no rate control, so file size will be difficult to predict.
Maximum Bit Rate	Maximum bit rate in Kbps. Only valid for VBR.
I-Quantization	Lower values will provide better visual quality, but will use more bits per frames. Generally, values below 25 yield good results and values above 25 may show distracting artifacts. The range is 1 to 31. Only valid for CQP.
P-Quantization	Lower values will provide better visual quality, but will use more bits per frames. Generally, values below 25 yield good results and values above 25 may show distracting artifacts. The range is 1 to 31. Only valid for CQP.
B-Quantization	Lower values will provide better visual quality, but will use more bits per frames. Generally, values below 25 yield good results and values above 25 may show distracting artifacts. The range is 1 to 31. Only valid for CQP.
Scene Change Detection	Specifying true enables pre-processing modules to auto-detect scene changes.
B-Frame Count	Specifies the maximum consecutive B-frame count. The range is 0 to 3.
Max Key Frame Distance	Maximum distance between key frames. Must be greater than or equal to 1 + B-frame count.
Entropy Coding Mode	Use CAVLC for slower playback devices. CABAC is only supported in Main profile and higher.



Advanced **Video Stream** options for **Windows Media** are described below.

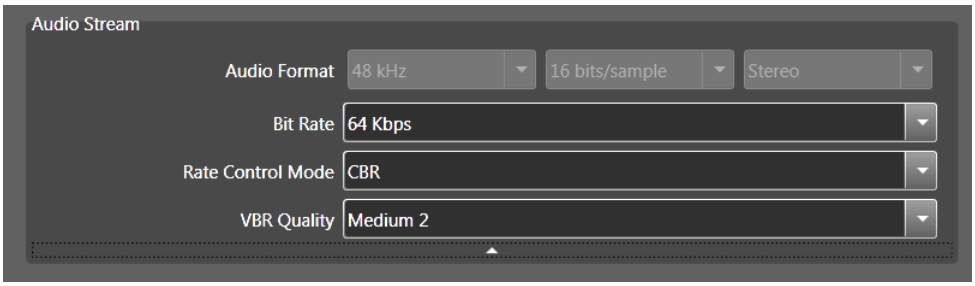
Video Format	Resolution and frame rate
Target Bit Rate	Target compression bit rate in Kbps
Profile	Use the highest profile supported by all target platforms and devices. Main profile is a good choice for Windows Media. Use simple profile only for very low-power devices.
Quality	Lower values will provide better quality, but will use more bits per frame. Generally, values below 8 yield good results and values above 8 may show distracting artifacts. The range is 1 to 31.
Rate Control Mode	VBR is useful for storing content for later processing, but has no rate control, so file size will be difficult to predict.
B-Frame Count	Maximum number of consecutive B-frames. The range is 0 to 7.
Max Key Frame Distance	Maximum distance between key frames. Must be greater than or equal to 1 + B-frame count.
Look Ahead	Specifying true enables pre-processing modules such as flash detection, which enables the encoder to intelligently place B-frames and I-frames to optimize compression. This optimization offers some of the B-frame quality improvements that would otherwise require 2-pass encoding.



6.2. ADVANCED AUDIO STREAM OPTIONS

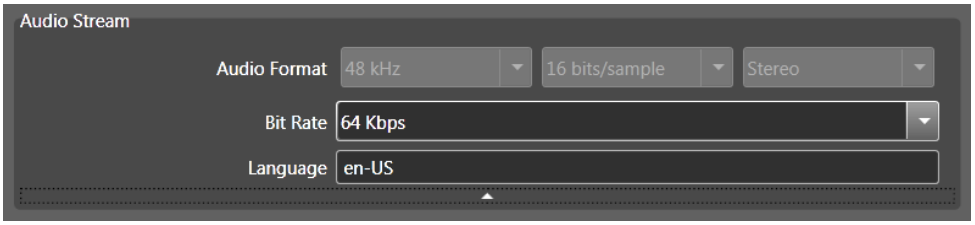
Advanced **Audio Stream** options for **H.264** are described below.

Bit Rate	Target compression bit rate in Kbps
Rate Control Mode	Variable or constant bit rate control
VBR Quality	Quality of the VBR compression



Advanced **Audio Stream** options for **Windows Media** are described below.

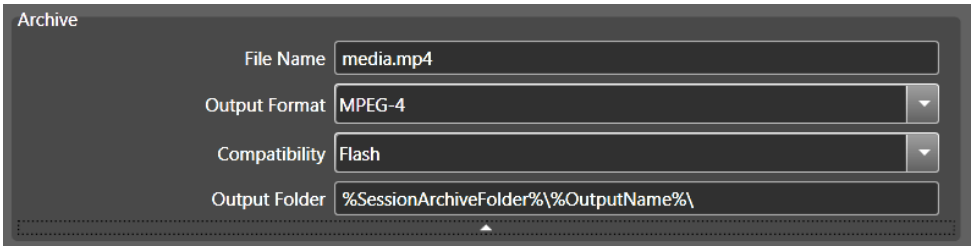
Bit Rate	Target compression bit rate in Kbps
Language	Language string compliant with RFC 1766



6.3. ADVANCED ARCHIVE OPTIONS

Advanced **Archive** options for **H.264** are described below.

File Name	Name of the target file
Output Format	Output file format
Compatibility	Generates an MP4 file meeting specific compatibility requirements for certain devices or standards
Output Folder	Location of target file



Advanced **Archive** options for **Windows Media** are described below.

File Name	Name of the target file
Auto Index	Auto-indexing creates a time-based index for the file.
Maximum Packet Size	Maximum packet size, in bytes. Set this to zero if the writer is to generate packets of various sizes. Otherwise, it must be a value between 100 bytes and 64 kilobytes.
Output Folder	Location of target file