



Avolites Prism Manual

Prism-v2.1

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1 Contact & Legal

Useful Avolites phone numbers:

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Email: support@avolites.com

Website: <http://www.avolites.com>

Before contacting Avolites for service enquiry please ensure that you have the **product serial number** and the **software version**. The serial number can be found on the back of the desk; the software version is displayed on the menu prompt when the console is switched to System mode.

The latest version of this manual and console software can be downloaded from the Avolites website.

The small print :

No Liability for Consequential Damages

Avolites has a policy of continuous product and documentation improvement. As such the detail within this manual may not match the operation of the console.

In no event shall Avolites be liable for any direct, indirect, special, incidental, or consequential damages or loss whatsoever (including, without limitation, damages for loss of profits, business interruption, or other pecuniary loss) arising out of the use or inability to use the console even if Avolites Ltd. has been advised of the possibility of such damages. Because some jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages, the above limitation may not apply to you.

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2 Introduction

2.1 Introduction

Prism is specialised software developed by **Avolites**, tailored for media playback and designed specifically for the live events and entertainment industry.

Prism can playback and control video files, virtual returns and live inputs, such as USB capture devices or webcams. These media types can be stored across multiple banks and can be viewed in the Preview window or applied to any of the layers within a Surface to create a mix.

Individual layers or the full mix can then be sent to a video output and by using regions, complex mappings can be made. Alternatively, this mix can be sent directly into Titan's Pixel Mapper using **Synergy** to allow tight integration between video and lighting.

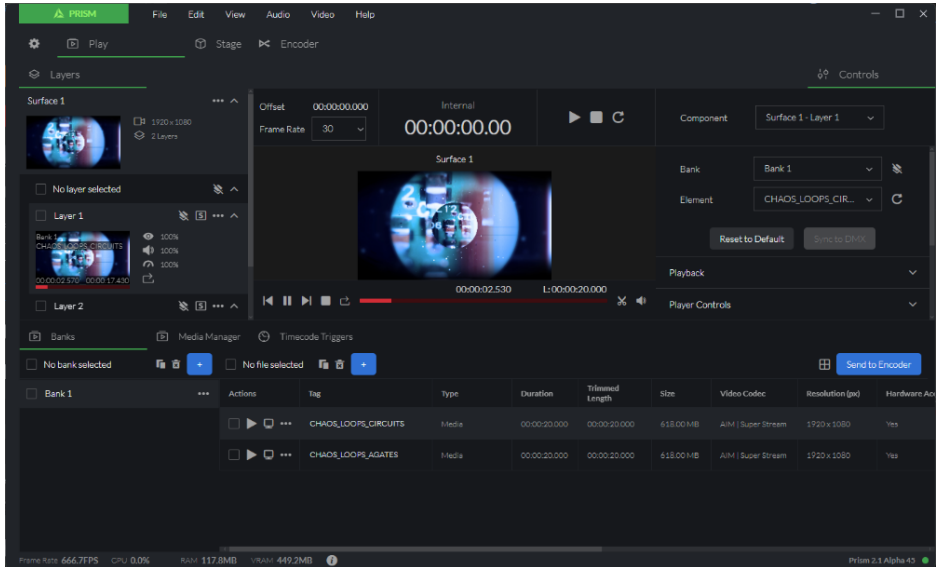
The software can be controlled in realtime via **Prism's** dedicated UI or through Titan's layer control as part of the **Synergy** toolset, which includes project setup, media transfer and video previewing directly within **Titan**.

Prism's built in encoder engine, media manager and asset consolidation tools provide a streamlined approach to media import and export between projects and playback systems.

Prism provides:

- Up to **16 Surfaces**
- Up to **16 Layers per Surface**
- Up to **256 Banks**
- Up to **256 Elements per Bank**
- Up to **4 video inputs**
- Up to **3 video outputs**
- **Synergy** support

Prism requires a license to run. Please refer to the [licensing page](#) in this manual.



Prism is composed of two parts - the **Server** and the **UI**. The **Server** runs in the system tray and the **UI** will run separately and show the interface.

Please note that closing the **UI** doesn't necessarily close the server as this allows for any playback, encoding, or **Synergy** control, to carry on behind the scenes. More information on this is found on the General settings page.

The **Server** and the **UI** communicate using **port 9030**, no other application must use this port in order for **Prism** to work.

When starting **Prism** you may be prompted to add a firewall exception. If you have this experience please add this port to your firewall / anti-virus lists.

Please contact support@avolites.com if you require any support.

3 Quick Start

3.1 Quick Start

1. Setting up a Project

Start by creating a new project via the file menu.

File > New Project

Next, set the surface resolution to define our working area in pixels.

Stage > Surfaces > Surface

1. Select a Surface.
2. Set the resolution.

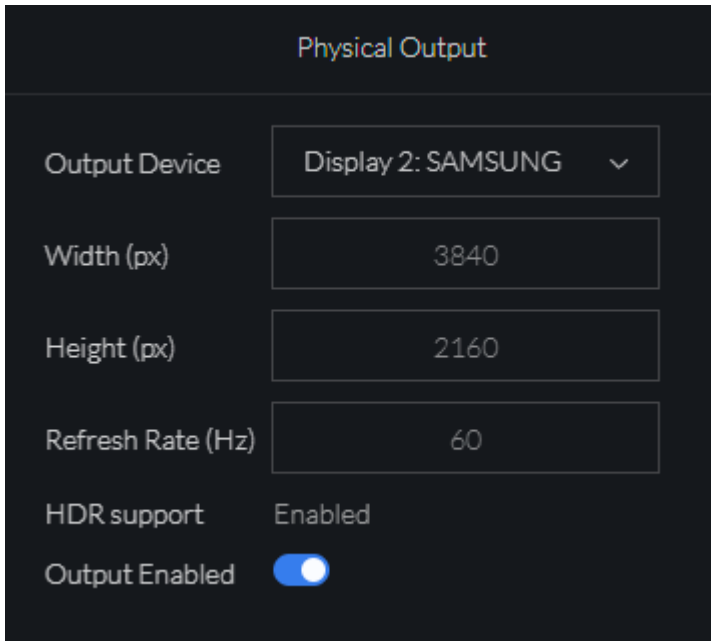


2. Connect to an External Display

To connect the surface to an external display, the output needs to be enabled in Prism.

Stage > Outputs

1. Select Physical Output.
2. Select the Output Device.
3. Enable the Output.



Physical Output

Output Device: Display 2: SAMSUNG

Width (px): 3840

Height (px): 2160

Refresh Rate (Hz): 60

HDR support: Enabled

Output Enabled: ☒

3. Region Setup

To determine which part of the **Surface** is being sent to the **Output**, a Region is used. The region will define the area to be sampled from the specified **Surface** and then where and what size this sample needs to be drawn on the output.

Stage > Regions

1. Create a new region by pressing the *Add* Button.
2. Select the newly created region in the list.
3. Select *Surface 1* in the *Source* dropdown.
4. Select *Physical Output* in the *Output* dropdown.

Source	Surface 1 ▾
Resolution (px)	3840 x 2160
X (px)	0
Y (px)	0
Width (px)	3840
Height (px)	2160

Output	Physical Output ▾
Resolution (px)	3840 x 2160
X (px)	0
Y (px)	0
Width (px)	3840
Height (px)	2160

The default behaviour of a new region is to sample the entire **Surface** and to fill the **Output** with this region. This can be adjusted using the *X*, *Y*, *Width*, *Height* boxes for the source and output.

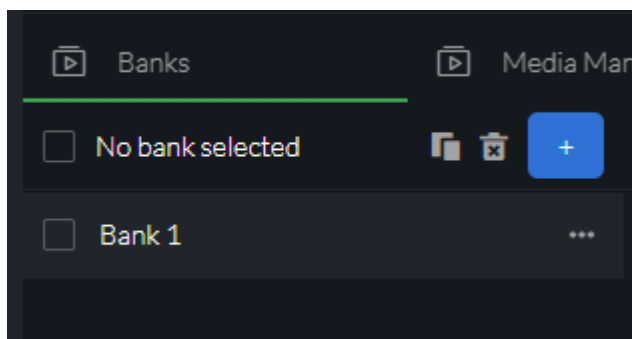
The project is now setup, all that is left is to import media and trigger it to display on the output.

4. Bank Setup

A bank must first be created in order to import media into the project.

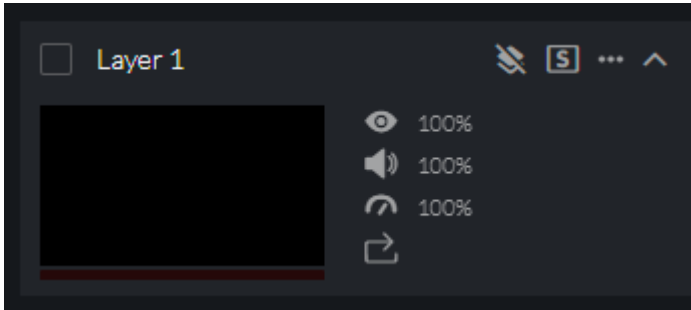
Play > Banks

1. Press the *Add* Button.
2. Select the new bank from the list and then locate and load the required media files. Media can be added by using the *Add* Button on the right or by dragging files into the Bank area.



5. Trigger Media

Finally, to trigger the imported media, select one of the layers within your surface and then click the *Play* button next to the media in the Bank.



3.2 Navigation

Prism's user interface is organised into three main sections:

- Main Menu (Section 3.2.1)
 - App Logo (Section 3.2.1.1)
 - File (Section 3.2.1.2)
 - Edit (Section 3.2.1.3)
 - View (Section 3.2.1.4)
 - Audio (Section 3.2.1.5)
 - Video (Section 3.2.1.6)
 - Help (Section 3.2.1.7)
- View Tabs (Section 3.2.2)
- Status Bar (Section 3.2.3)
- Multi Selection (Section 3.2.4)

3.2.1 Main Menu

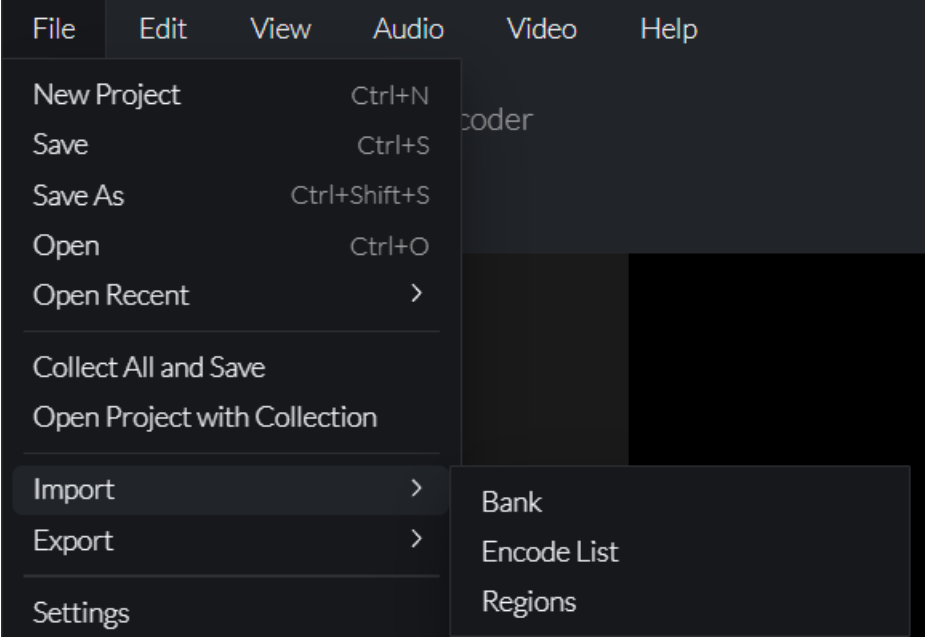


In this section it is possible to navigate the application menu, see the Project name, minimize, maximize or close the user interface.

App Logo

Clicking on Prism logo will hide all **View Tabs** (Section 3.2.2), showing the selected **Surface** in fullscreen.

File



Item	Description
New Project	Resets application state and starts a new project.
Save	Saves the current project.
Save As	Saves a new / replace project file.
Open	Opens a project file.
Open Recent	Opens a project from a list of previous projects, sorted by the most recent.
Collect All and Save	Saves the current project and collects all media files in use to a folder.
Open Project with Collection	Opens a project file and loads all media files saved with it.

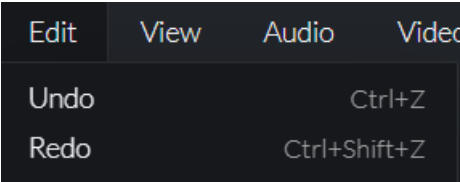
More information found at [Projects Management](#)

Item	Description
Import	Imports either a Bank , Encode List or Regions .
Export	Exports either a Bank , Encode List or Regions .

More information found at Import/Export

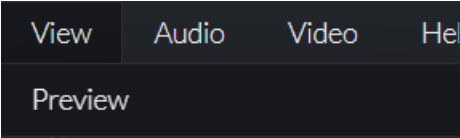
Item	Description
Settings	Navigates to the Settings View.

Edit



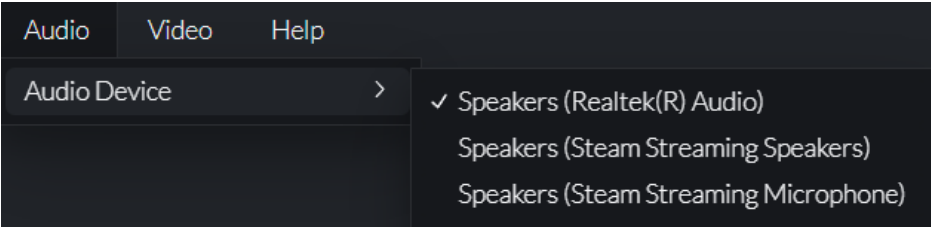
Item	Description
Undo	Undo the last action. <i>Note: Not all features have Undo actions.</i>
Redo	Redo the previous action. <i>Note: Not all features have Redo actions.</i>

View



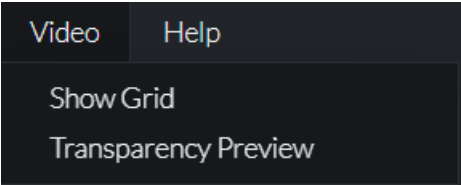
Item	Description
Preview	Open the Preview window for editing bank elements.

Audio



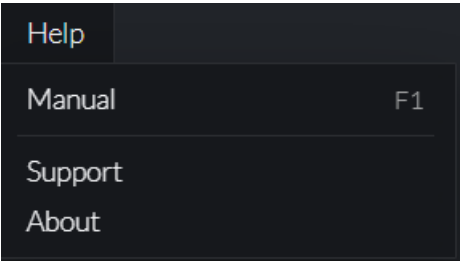
Item	Description
Audio Device	Sets the audio device output for Prism . This can also be configured via Settings.

Video



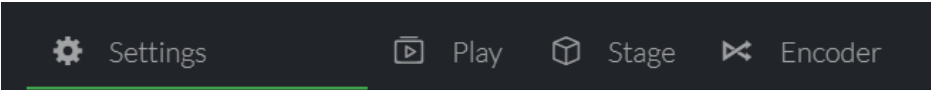
Item	Description
Show Grid	Displays a reference grid over the media player / layer preview.
Transparency Preview	Toggles on the alpha channel, showing a checkerboard in transparent areas.

Help



Item	Description
Manual	Opens the Desktop Manual app.
Support	Shows a pop-up with company details.
About	Shows a pop-up with information about Prism .

3.2.2 View Tabs



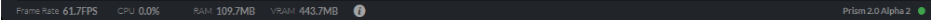
In this section it is possible to navigate the following app **Views**:

- Play
- Stage
- Encoder
- Settings

An underline will give visual feedback of the selected **View**.

3.2.3 Status Bar

This bar shows the following app informations at a glance.



- App performance metrics - The full performance metrics are shown in the System Info page in **Settings**.
- Prism release version.
- User interface connection status indicator - red when disconnected, green when connected to the Server.

3.2.4 Multi Selection

It is possible to select multiple elements by: - Ticking element selection boxes. - Holding *Ctrl* button and clicking on elements. - Clicking on an element then *Shift* clicking another element to range select. - Pressing *Ctrl-A* to select all elements in a list.

When multiple **Bank Elements**, **Layers** (in Play View), **Regions** or **Encode List** entries have been selected, a *Multiple elements selected* orange label is shown in the **Controls** panel and changes will be applied to

every selected element.

Any unchanged values in the *Controls* panel will initially display those of the first selected element.

If **Undo and Redo** (Section 3.2.1.3) are permitted, all selected elements will be affected.

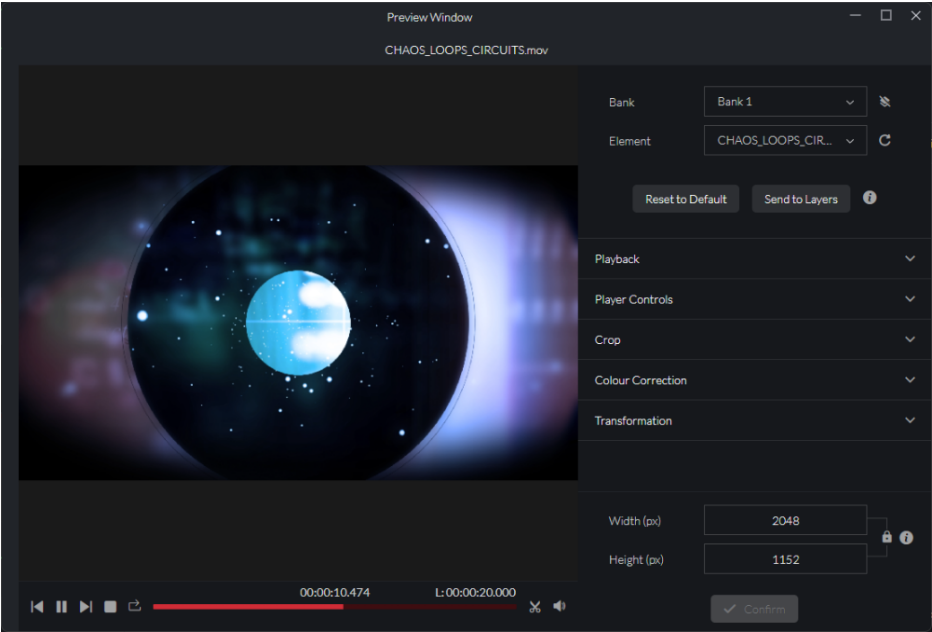
3.3 Preview

The **Preview** window allows for adjustments to be made to the properties of individual bank elements, setting values on the following areas to the right side of the window:

- **Playback** (Section 3.3.1)
- **Player Controls** (Section 3.3.2)
- **Crop** (Section 3.3.3)
- **NDI® Input** (Section 3.3.4)
- **Live Input** (Section 3.3.5)
- **Virtual Return** (Section 3.3.6)
- **Network Stream** (Section 3.3.7)
- **Colour Correction** (Section 3.3.8)
- **Transformation** (Section 3.3.9)

Preview can be accessed by the Bank view or the Main Menu.

Any adjustment made will directly change the bank element properties and then can be played with those settings either via playing the same element on the bank again or selecting {Send to Layers}.



Bank / Element

Media stored in a bank can be previewed.

Item	Description
Bank	Select a Bank.
Element	Select a Bank Element to Preview.

Reset to Default

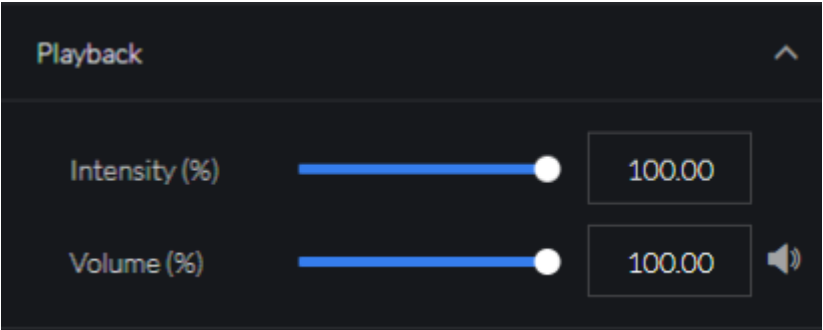
Reset To Default is a quick way to reset all of the user adjusted parameters, just as a locate or home button would do on a console.

Send to Layers

Adjustments made here will be applied to all **Layers**, which play this **Bank Element**

3.3.1 Playback

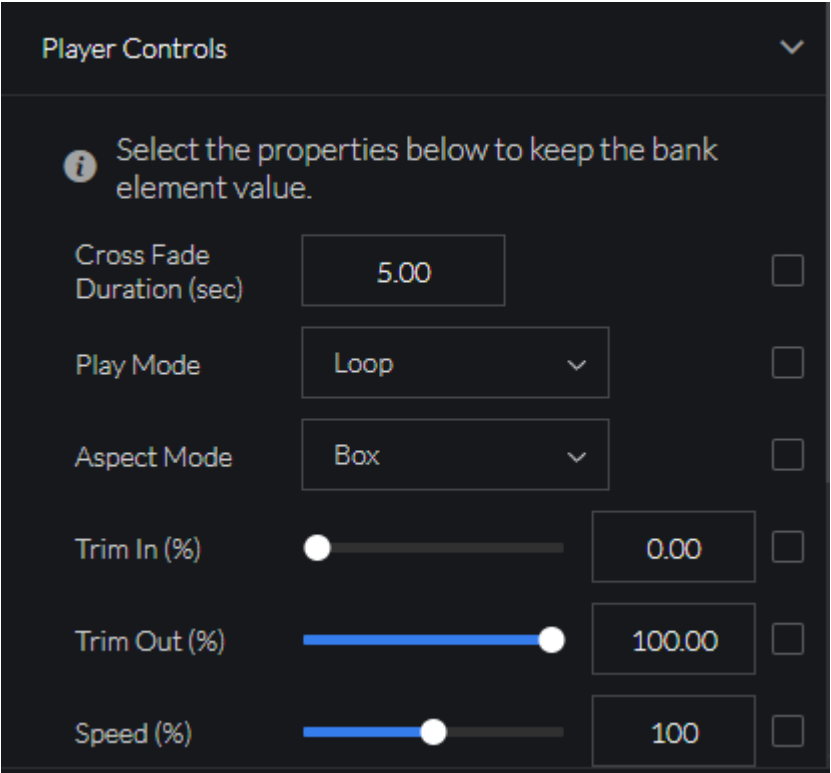
The **Playback** controls the intensity / volume of a Bank Element playing on a layer.



Item	Description
Intensity (%)	Intensity sets the opacity of the Bank Element.
Volume (%) / Mute	Volume of the Bank Element. Whether Bank Element is muted.

3.3.2 Player Controls

This area controls the **Player Controls** options, which are set on the Bank Element.



The **Player Controls** have check boxes against their properties, so that users can define whether to use the Bank Element value or the one that is currently on the layer that it will play on.

Item	Description
Cross Fade Duration	Cross Fade Duration of the layer.

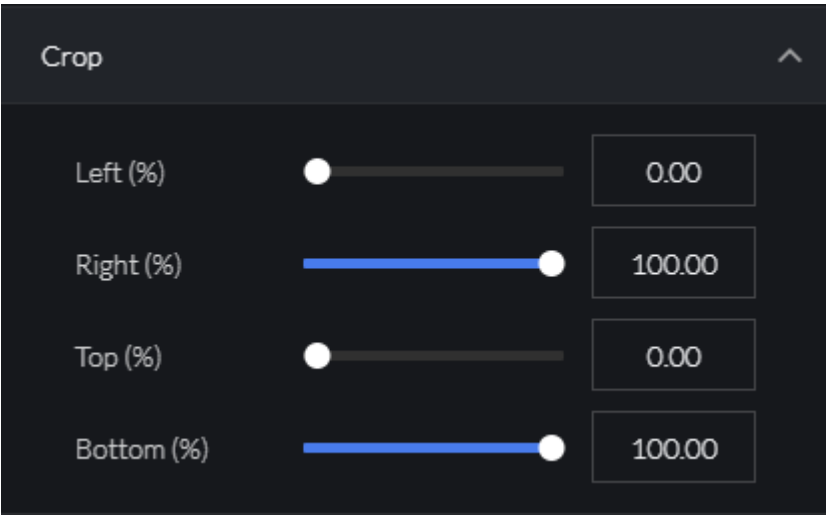
Item	Description
Play Modes	{Play List} - Play through all the media in the bank that the current element belongs to. {Loop} - Continuously play the same media element. {Shuffle} - Randomly select and play media from the bank that the element belongs to. {Play Once} - Play the media once and then display the last frame. {Pause} - Stay on the current frame. {In Frame} - Display the first frame. {Out Frame} - Display the last frame. {Timecode} - Allows playback to be synchronised to an external or internal timecode signal.

Item	Description
Aspect Modes	- Fit: Adjusts the content to cover the entire surface, distorting it if necessary. It does not preserve the aspect ratio, but ensures no cropping and no black bars. - Box: Adjusts the content to fit entirely within the surface while preserving aspect ratio. This ensures the whole content is visible, without cropping or distortion, but may introduce black bars (letterboxing or pillarboxing) to fill unused space. - Center: Adjusts the content to fill the surface while preserving its original aspect ratio. This may result in cropping around the edges. The content remains centered and is not distorted. - Window: Displays the content at its original resolution and aspect ratio, without any scaling. If the content is larger than the surface, parts of it may be cropped. There is no distortion and no scaling applied.

Item	Description
Trim In (%)	Trim In of the layer.
Trim Out (%)	Trim Out of the layer.
Speed (%)	Speed of the layer.

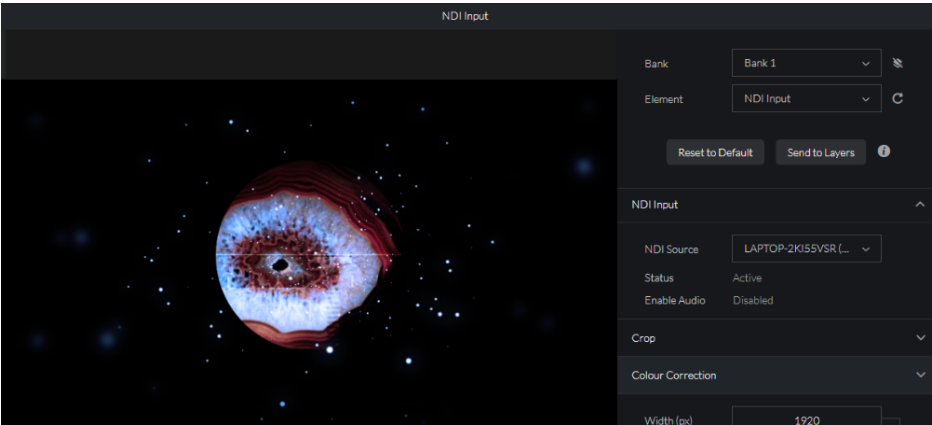
3.3.3 Crop

This area controls the **Crop** of the Bank Element.



Item	Description
Left (%)	Crop on the left side of the Bank Element.
Right (%)	Crop on the right side of the Bank Element.
Top (%)	Crop on the top side of the Bank Element.
Bottom (%)	Crop on the bottom side of the Bank Element.

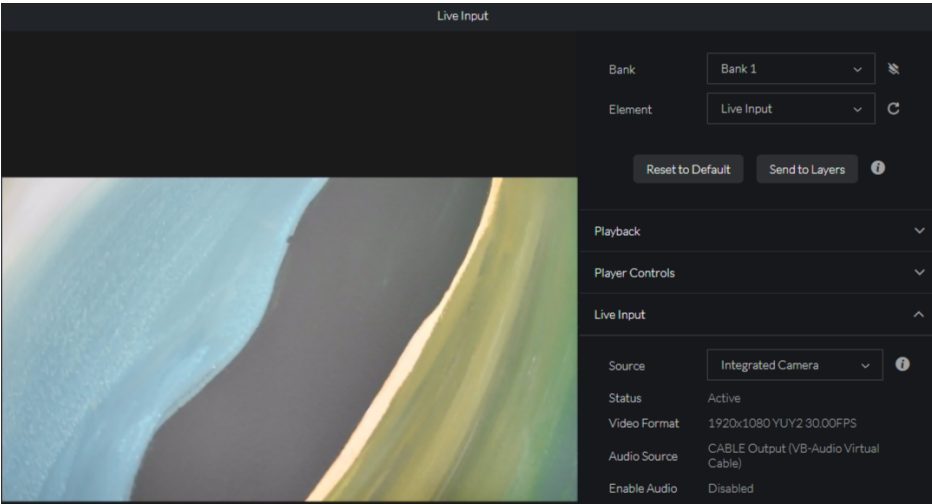
3.3.4 NDI® Input



Item	Description
NDI® Source *	List of all active NDI® sources on your network.
Status	Shows the connection status to the NDI® source, stream will only display frames when active.
Enable Audio	Shows if an audio source is also playing from the stream, controllable via the Settings page.

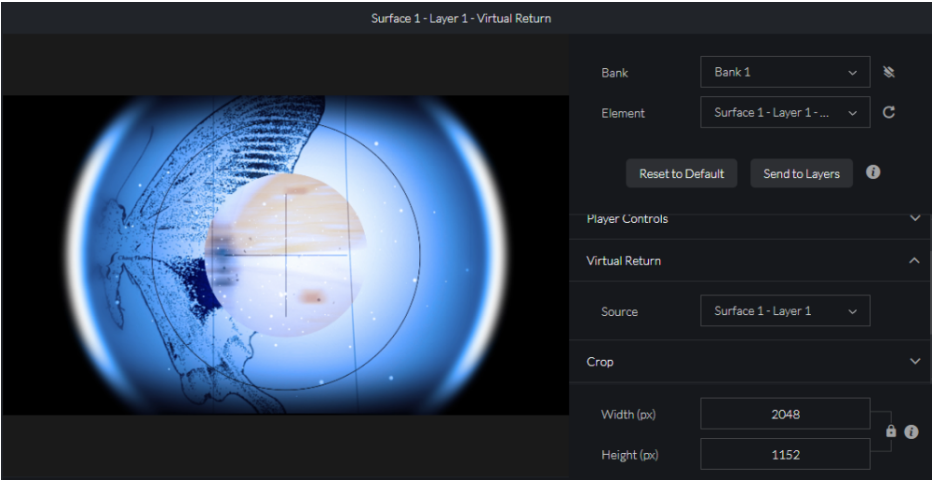
* NDI® is a registered trademark of Vizrt NDI AB.

3.3.5 Live Input



Item	Description
Source	List of valid capture devices for video streaming, if they are compatible with DirectShow.
Status	Shows the connection status to the capture device, will only display frames when active.
Video Format	Shows the resolution, colour format and frame rate set on the capture device.
Audio Source	Shows the audio source set on the capture device.
Enable Audio	Shows the enabled status of the audio source on the capture device.

3.3.6 Virtual Return



Item	Description
Source	List of all Surfaces and Layers on Prism .

3.3.7 Network Stream

Item	Description
URL	Full RTSP address of the stream (for example: rtsp://address:port/path)..

3.3.8 Colour Correction

This area controls the **Colour Correction** options, which are set on the Bank Element



The below table describes what each of the options do:

Item	Description
Red (%)	Red Channel of the Bank Element.
Green (%)	Green Channel of the Bank Element.
Blue (%)	Blue Channel of the Bank Element.
Hue Offset (°)	Hue Offset of the Bank Element.
Saturation (%)	Saturation of the Bank Element.
Contrast (%)	Contrast of the Bank Element.
Gamma (%)	Gamma of the Bank Element.

3.3.9 Transformation

This area controls the **Transformation** options, which are set on the Bank Element



Item	Description
Scale X (%)	Scale X (horizontal scale) of the Bank Element, in relation to the surface size. {Lock} will set either X or Y to the current aspect ratio. {Unlock} will set <i>Scale X</i> independently from <i>Scale Y</i>

Item	Description
Scale Y (%)	Scale Y (vertical scale) of the Bank Element, in relation to the surface size. {Lock} will set either X or Y to the current aspect ratio. {Unlock} will set <i>Scale X</i> independently from <i>Scale Y</i>
Translate X (%)	Translate X (horizontal position) of the Bank Element, in relation to the surface size
Translate Y (%)	Translate Y (vertical position) of the Bank Element, in relation to the surface size
Rotate X (°)	Rotate X (x axis) of the Bank Element, in relation to the Surface.
Rotate Y (°)	Rotate Y (y axis) of the Bank Element, in relation to the Surface.
Rotate Z (°)	Rotate Z (z axis) of the Bank Element, in relation to the Surface.

3.4 Projects Management

New Project

To create a **Prism** project, click on **File > New Project** or use the **Ctrl+N** shortcut. Creating a new project will reset all application settings.

By default, a new Prism project will contain 1 **Surface** containing 2 **Layers**, and 2 **Regions**.

Encode list media files and **Settings** will remain unchanged as they are stored separately.

Save Project

To save a **Prism** project, click on **File > Save** or use the **Ctrl+S** shortcut.

The default destination folder of project files is in the **Documents** folder under **Avolites > Prism > Prism > Projects**.

Clicking on **File > Save As** or using the **Ctrl+Shift+S** shortcut will prompt the **Save Project As** dialog box where the project file name and the default destination folder can be changed.

When a project is saved in **Prism**, it will contain all application settings throughout the software.

This includes all **Banks**, **Surfaces**, **Layers**, **Outputs** and **Regions** settings.

Open Project

To open a **Prism** project, click on **File > Open** or use the **Ctrl+O** shortcut.

The default source folder of project files is in the **Documents** folder under **Avolites > Prism > Prism > Projects**.

Clicking on **File > Open Recent** will show the list of recently opened projects, with the most recent at the top.

Selecting one of the projects from the list will open it.

Opening a previously saved project greatly reduces the setup time for a show and allows the recall of an earlier setup render queue without the need to rebuild it. When a project is opened, all settings across the application will be updated to those in the saved file.

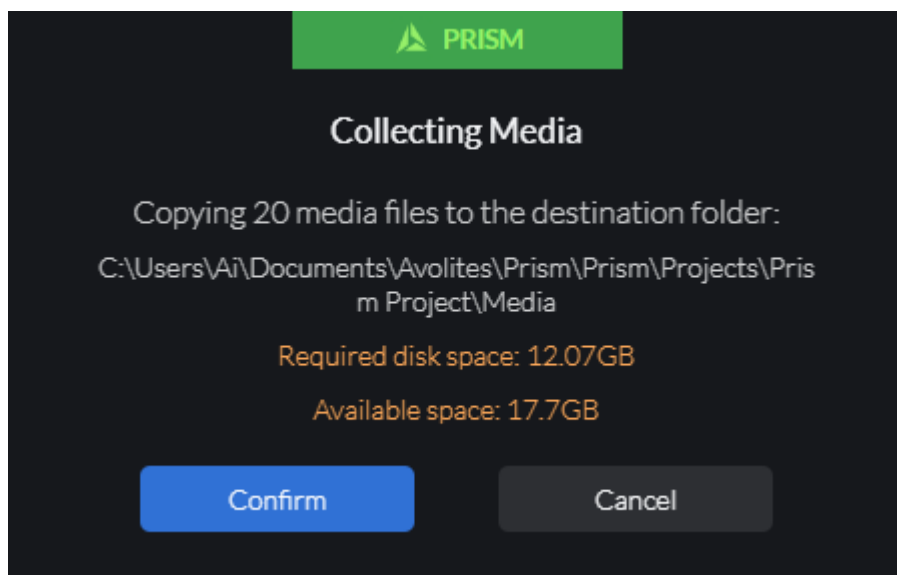
Collect All and Save

Collect and save all media used in the project to a specific destination folder. This can be used to backup a project along with its media, or easily transfer it to another machine.

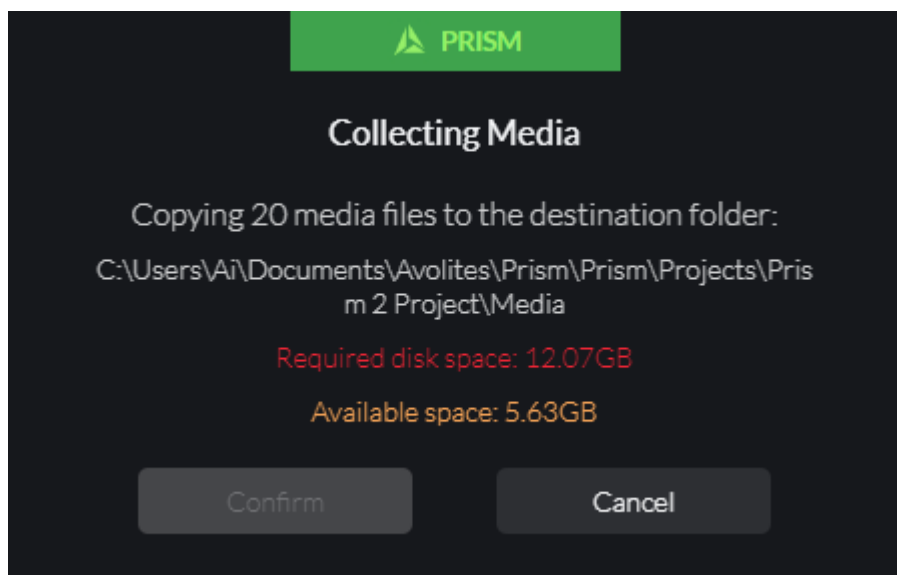
To save a Prism project with a collection, click on **File > Collect All and Save**. The default destination folder of project files is in the **Documents** folder under **Avolites > Prism > Prism > Projects**. On collecting all and saving the **Save Project with Collection** dialog box will prompt where the project file name and the default destination folder can be changed.

A pop-up will then show the following information:

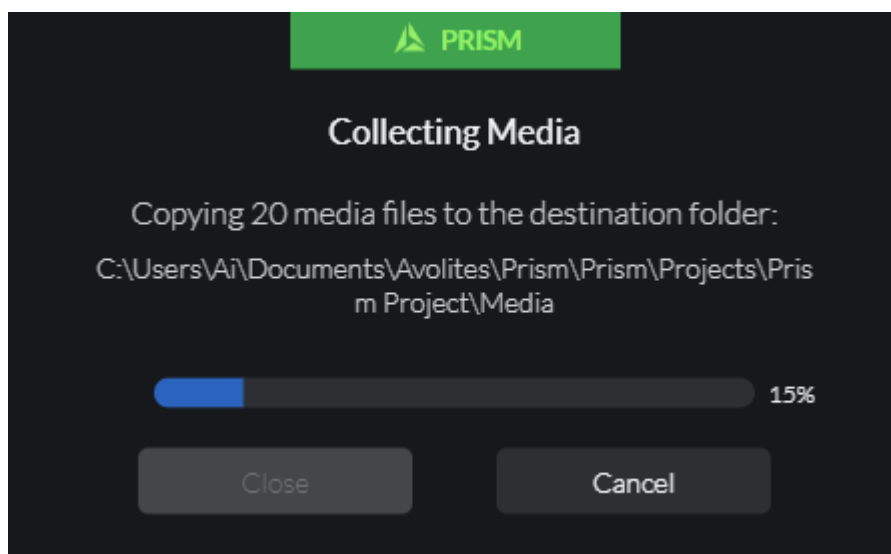
- Number of media files being collected.
- Destination folder of the collection.
- Required disk space of the collection.
- Available disk space at the destination.



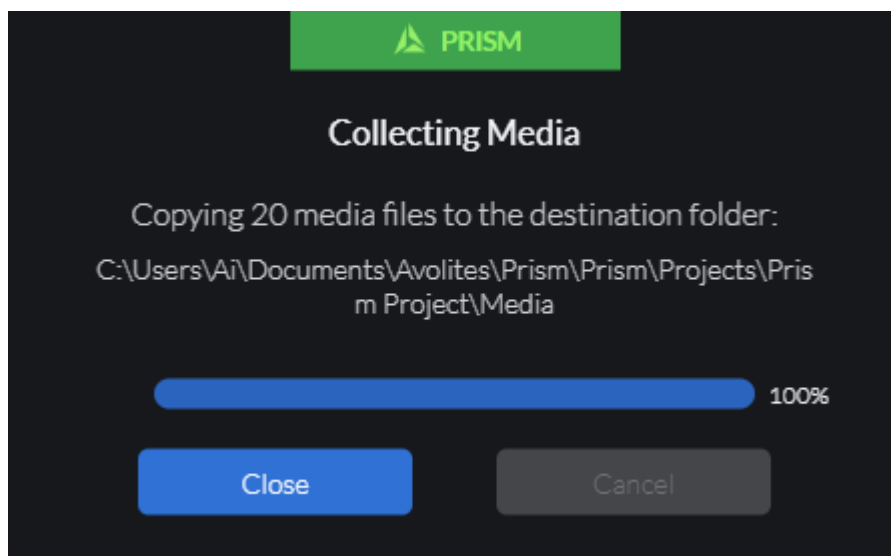
If there is not enough available space, the collection process cannot proceed and the only option is to press the *Cancel* button.



If sufficient space is available, once confirmed the collection process begins, displaying a progress bar.

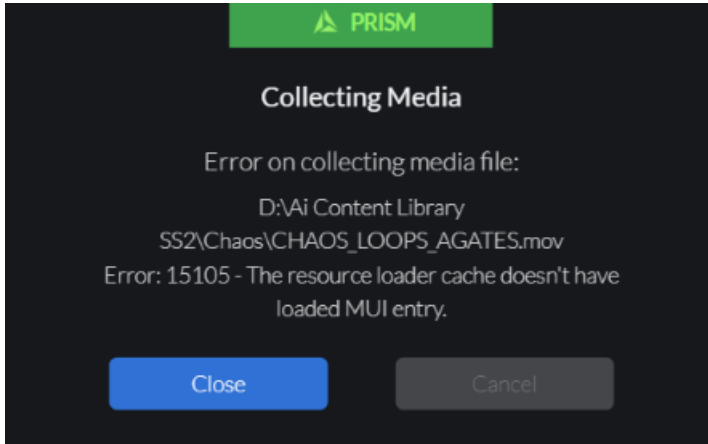


The process can be cancelled at any time before completion. Once finished, the pop-up can be closed by pressing the *Close* button.



Additionally, a *Collecting Media* status bar appears in the bottom **Status Bar**. If the UI is closed and later reopened, the pop-up will not be visible, but the status bar will continue to provide visual feedback on the progress.

If an error occurs during the process (e.g., the destination folder is on an external drive that is removed mid-process), the pop-up will display an error code, an error message, and the *Cancel* button.



Open Project with Collection

To open a Prism project with collection, click on **File > Open Project with Collection**. When opening a project with collection, Prism will look for the *Media* folder that was created when saving with a collection (*Collect All and Save*).

If the *Media* folder is found, the media files will be loaded to the **Banks** and the media file paths under *Source* will be relative to this folder. If the *Media* folder is not found the loading will fail and an error will be notified.

3.5 Import & Export

Banks, Encode Lists and Regions can be saved to an external file (Export), and loaded from an external file (Import).

3.5.1 Export

To export a **Prism** Bank, first select a Bank and then click on **File > Export > Bank**.

The default destination folder of Bank files is in the **Documents** folder under **Avolites > Prism > Prism > Playlists**.

It is also possible to export a Bank from the Banks view using the Bank's **Sub Menu Export** function.

To export a **Prism** Encode List, click on File > Export > Encode List.

The default destination folder of Encode List files is in the **Documents** folder under Avolites > Prism > Prism > Encodelists.

To export all **Prism** Regions, click on File > Export > Regions. The default destination folder of Regions files is in the Documents folder under Avolites > Prism > Prism > Regions.

3.5.2 Import

To import a **Prism** Bank, click on File > Import > Bank.

The default source folder of Bank files is in the **Documents** folder under Avolites > Prism > Prism > Playlists.

The imported Bank will be added to the **Banks** if there is no selected Bank, otherwise it will replace the selected Bank.

It is also possible to import a Bank in the Banks view using the Bank **Sub Menu** *Import* function.

To import a **Prism** Encode List, click on File > Import > Encode List.

The default source folder of Encode List files is in the **Documents** folder under Avolites > Prism > Prism > Encodelists. The imported Encode List will replace the existing one.

To import **Prism** Regions, click on File > Import > Regions. The default source folder of Regions files is in the Documents folder under Avolites > Prism > Prism > Regions. The imported Regions will replace all existing regions.

3.6 System Tray

Once **Prism** has been started, a **System Tray** icon becomes available.

By right-clicking on it it is possible to access several features:

- The port which is being used for **Prism** - this is a read-only value, set to 9030.
- The **Open UI** function allows to focus the UI if it's running, or to open a new instance otherwise.
- The **Exit** function allows to fully close **Prism**.

3.7 Live Input Setup

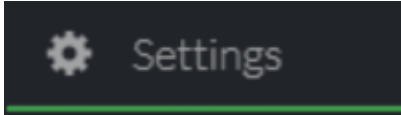
When adding a **Live Input** to **Prism**, the available signal options will vary according to the device in use, but the setup process is the same for all capture devices.

Multiple bank elements can share the same **Live Input** device (e.g., a USB camera). Each bank element can have its own settings—such as color adjustments or transformations—but **Prism** creates a single unique instance for each input device. This means all bank elements using the same device access the same video buffer resource, which helps improve performance.

Note: The number of available inputs varies based on [licensing](#).

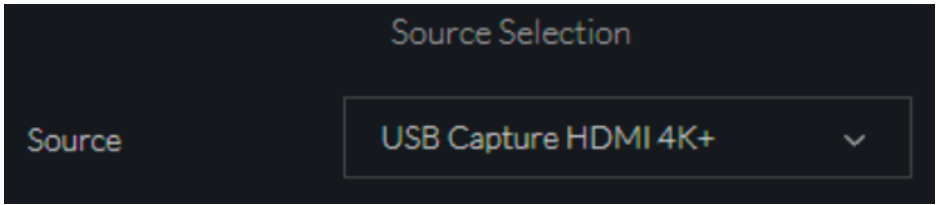
3.7.1 1. Setup

Go to the **Inputs** section of the **Settings** page to set the parameters for the video capture device.



Source Selection

Select the input from the **Source** dropdown.

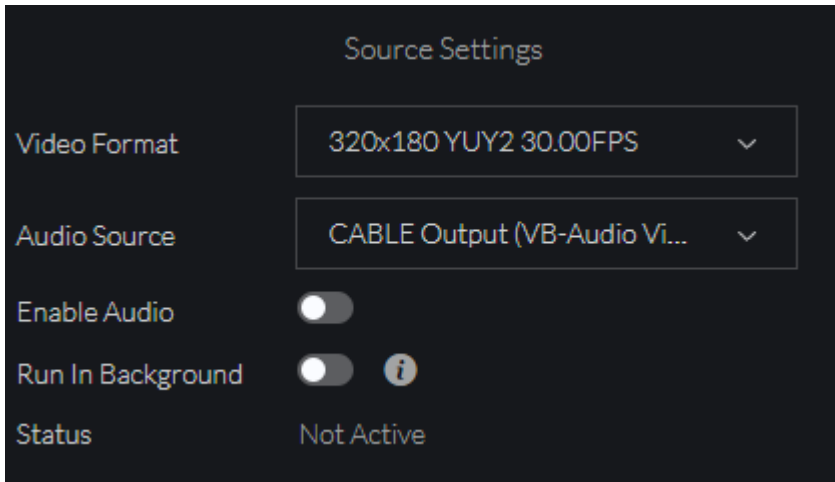


Source Settings

Then **Video Format** dropdown will display all available resolution, framerate and colour space variants that the selected device supports. Choose one that fits the project requirements. Any instances of the input will use the chosen settings.

An audio source can also be enabled from the chosen source device.

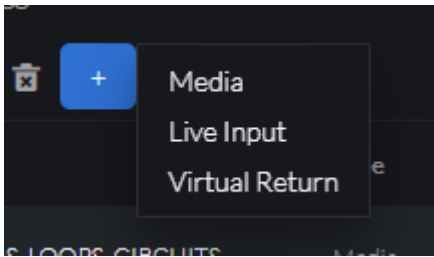
Enabling the run in background will make the source faster to load on a **Layer**.



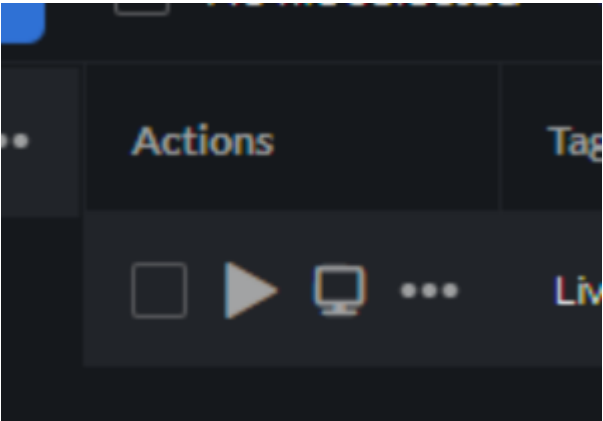
3.7.2 2. Playback

Playing a Live Input

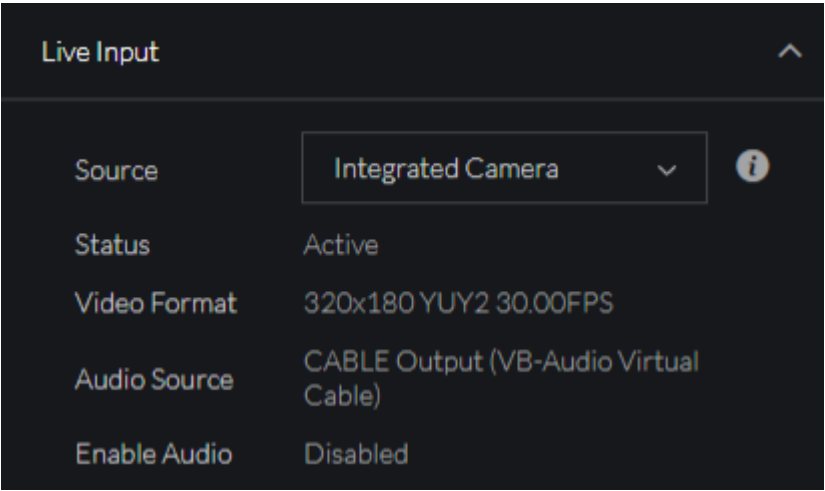
Go to the **Play** page, select a bank and then add a **Live Input** by pressing the Add Element button.



Open the **Preview window** by pressing the Preview button in the bank element's Actions.



In the **Live Input** section of the **Preview Window**, select the input from the source dropdown. The status will change to Active and the preview will show in the window.



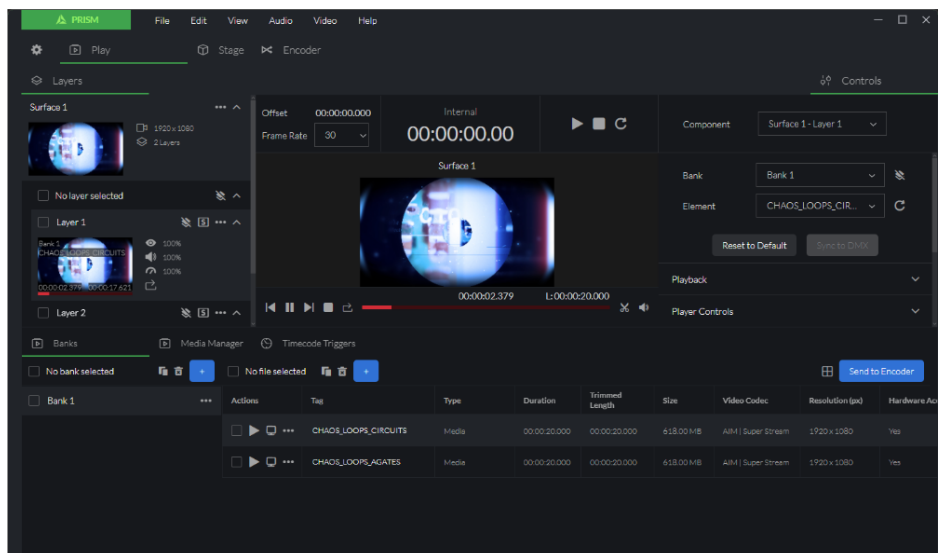
After the video signal has been confirmed, close the **Preview Window**. The **Live Input** is ready to be used.

4 Play

4.1 Play

The **Play page** is the main workspace for managing and playing media. It allows you to organise media into **Banks**, control playback on **Layers**, and preview content before it is loaded live.

Media can be adjusted in the **Preview** before being launched on a layer, and layer-specific parameters can be modified using the **Layer Controls** panel.



Layout Overview

The Play page is divided into several functional areas:

Left Panel

- Displays **Surfaces and Layers previews**.
- Provides a visual overview of all active layers and their content.

Center Area

- The **Main Canvas** shows a preview of the selected surface.
- Displays **Timecode controls** and the current timecode value when timecode is enabled.

Right Panel

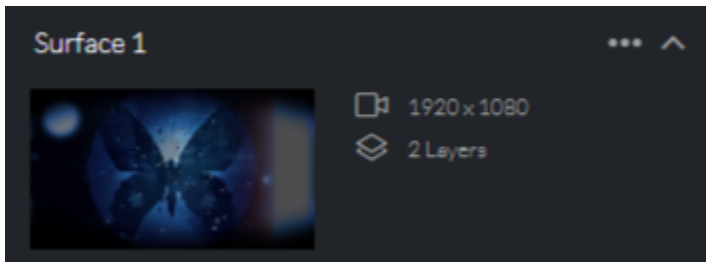
- Contains **Surfaces and Layers controls**.
- Allows adjustment of layer parameters such as position, opacity, blending, and play modes.

Bottom Area

- Used to manage Banks and **Bank Elements**.
- Launch media onto layers.
- Access the Media Manager.
- Create and manage Timecode Triggers.

4.2 Surfaces

A surface is the virtual canvas where visual content is displayed, such as screens, LED walls, or projections. It defines spatial parameters and resolution, allowing media to be mapped, scaled, and adjusted for precise display.



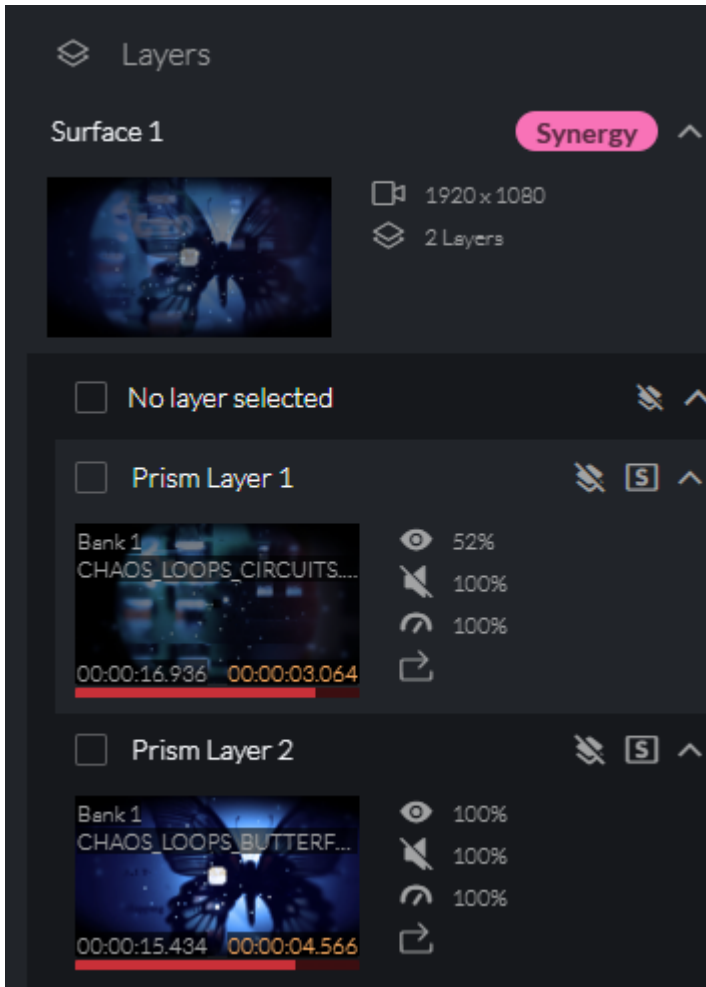
The surface information card includes:

- Surface mix preview
- Surface resolution
- Number of layers

The card can be minimised or maximised to hide or show layers.

4.2.1 Synergy Enabled Surface

A Synergy label will appear on the surface once a Synergy connection has been successfully established.



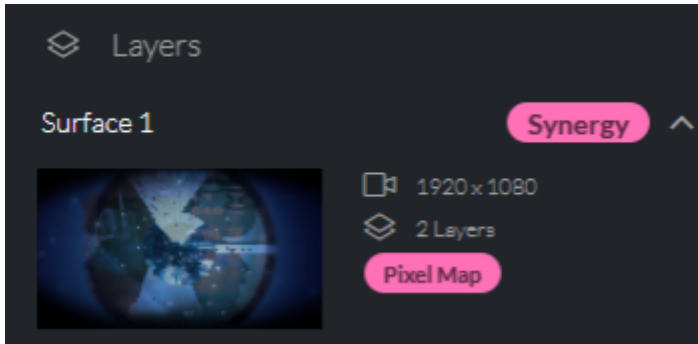
All management of **Surfaces** or **Layers** will be locked on the Stage page. Adding or removing **Layers** from the Prism UI will be restricted, as Titan will now have primary control of Prism. **Surfaces & Layers** can only be added or removed through the Titan interface.

More information on setting up **Synergy** can be found [here](#).

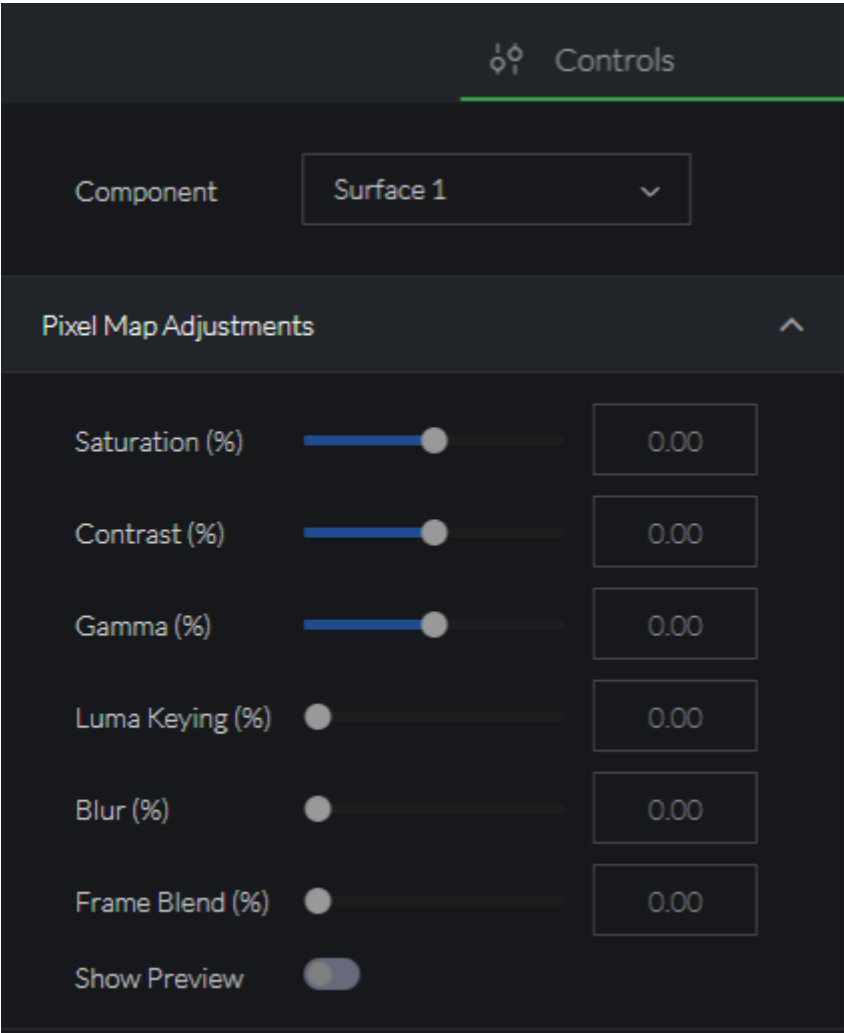
4.2.2 Synergy Pixel Map Adjustments

When a **Surface** is connected to **Synergy**, and a **Pixel Map** has been setup, a **Pixel Map** label will also be shown on the **Surface**. This indicates that the Pixel Map is working correctly and Pixel Map Adjustments

can be controlled on the Surfaces.



Clicking on the **Surface** should open the **Controls** panel to the right. The properties will now be enabled but will only affect the frames being sent over to Titan and used for Pixel Mapping.



Item	Description
Saturation	Sets the Saturation of the Pixel Map frame sent to Titan
Contrast	Sets the Contrast of the Pixel Map frame sent to Titan

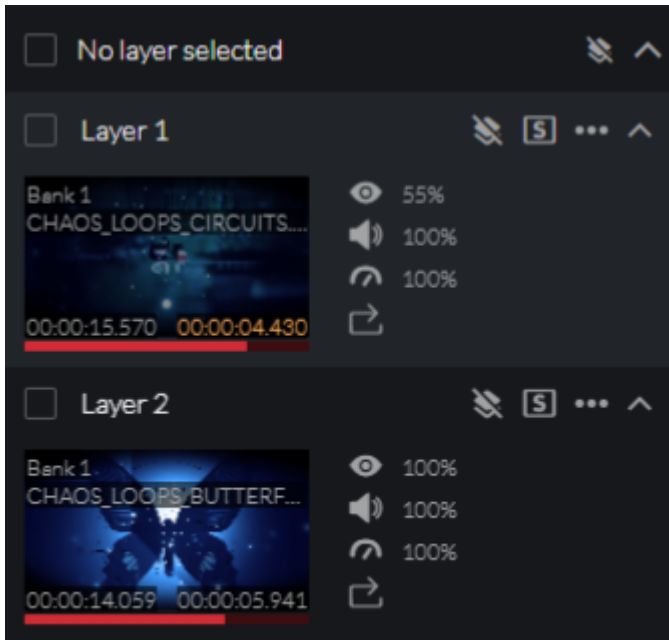
Item	Description
Gamma	Sets the Gamma of the Pixel Map frame sent to Titan
Luma Keying	A filter that removes parts of an image based on brightness (luminance) rather than colour.
Blur	Blurs pixels for smoother pixel map effects
Frame Blend	Smoothly interpolates frames over time for smoother pixel map transitions
Show Preview	Preview the effect via the Preview window / make clip adjustments.
	<i>Note: You can preview effects in the Prism UI canvas, but this will not affect your output.</i>

4.3 Layers

A **Layer** is a canvas that contains visual content, such as videos or images.

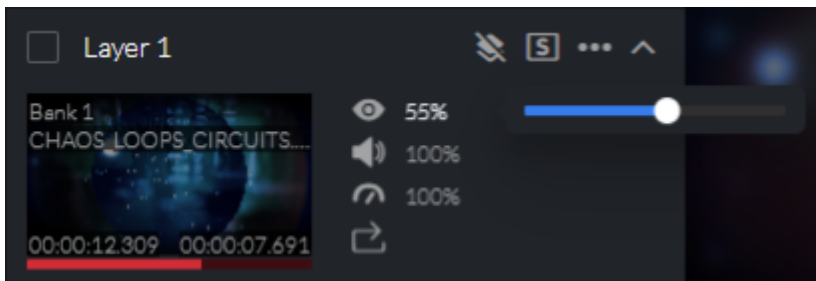
Multiple **Layers** can be stacked and manipulated independently to make compositions. Media can be played on one or multiple layers, blended using blend modes, intensity sliders, and can create simple mixes adjusting their volumes.

Note: When using multiple layers, performance may vary on different systems



Surfaces and their **Layers**, can all be managed in the **Stage** view where layers can be added, removed, reordered and renamed.

The layer preview comprises of an overlay showing:



- Bank name
- Bank element name
- Duration of the clip
- Remaining time of the clip.

It is possible to minimise and maximise the information card in order to have a more compact view of all

the layers.

Note: When minimised the speed slider and the play modes will be hidden.

Controlling the Layer

The layer has some controls, which can adjust the layers in real-time.

Item	Description
Visibility	Hide / show the layer
Intensity	Opacity of the layer
Mute	Mute / unmute the audio from the layer
Volume	Volume adjustment of the layer
Speed	Speed adjustment of the layer
Play Modes	{Play List} - Play through all the media in the bank that the current element belongs to. {Loop} - Continuously play the same media element {Shuffle} - Randomly select and play media from the bank that the element belongs to. {Play Once} - Play the media once and then display the last frame. {Pause} - Stay on the current frame. {In Frame} - Display the first frame. {Out Frame} - Display the last frame. {Timecode} - Allows playback to be synchronised to an external or internal timecode signal.
Clear Layer	{Clear Layer} Reset the layer
Solo	Click on the {Solo} button to solo this layer. This will be the only layer present in the surface mix

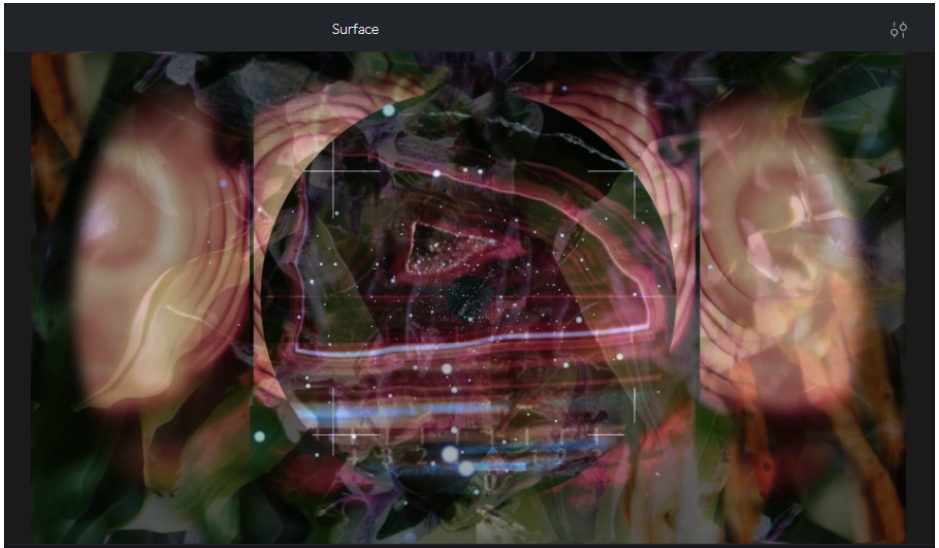
Users can also control each Layer Controls via the UI or Synergy control.

Both methods affect the layer properties directly, but also can be overridden by the bank element, depending on your preferred result, as discussed on the Preview page.

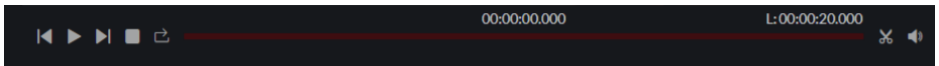
4.3.1 Playback

Surface Mix

This area will show the surface mix of all the layers together.



Play Bar

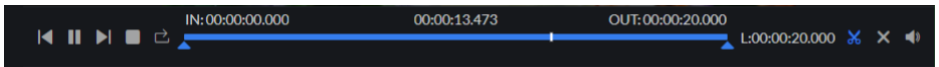


Similar to **Prism Player**'s media player play bar, the standard play controls are available. In Prism the playbar will activate once a layer is selected, as this serve a purpose of controlling the layer playback.

Hover the mouse over the bar and a seeking indicator will appear for you to drag.

Toggling the {Trim} icon reveals the trim feature.

Trim Bar



The trim is set on the layer properties, but can also be override by the bank element via the Preview Window. Moving the sliders will set the Trim In and Trim Out points.

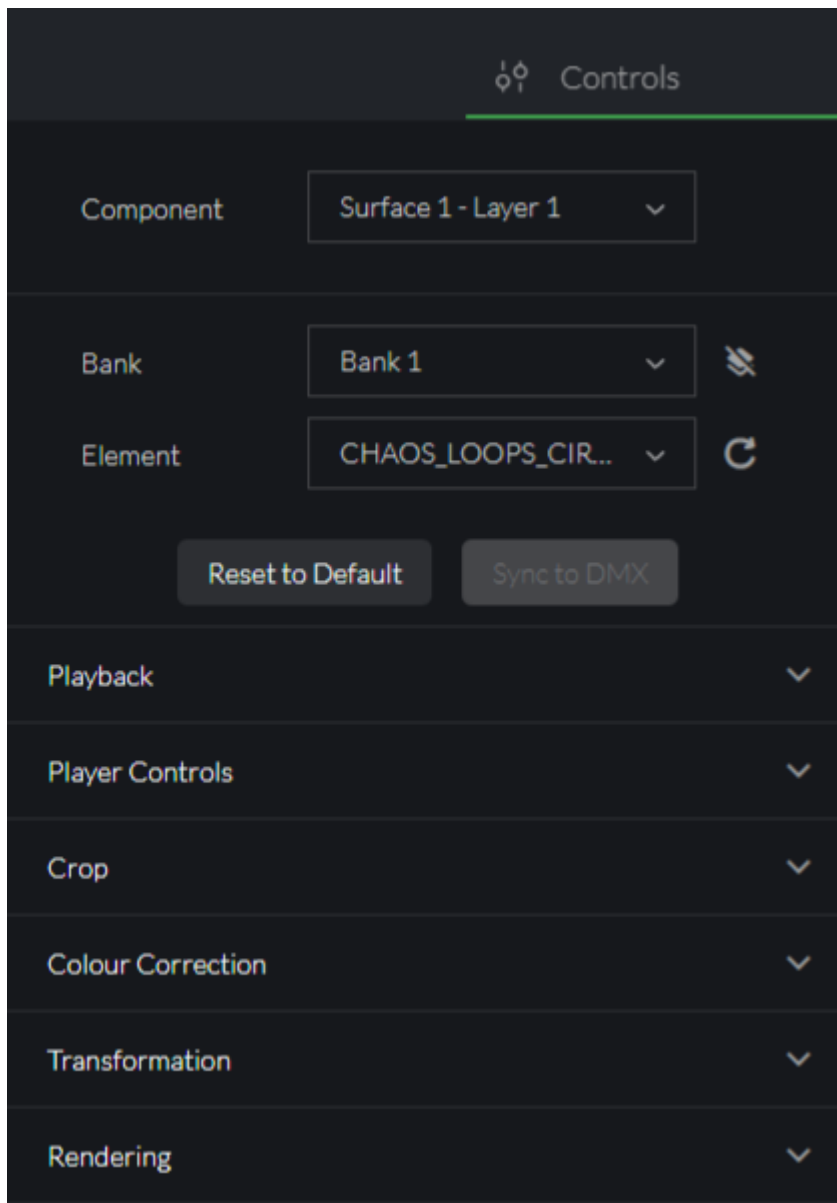
Clicking on the {Trim} icon will confirm the newly set trim points.

Clicking on the {Cancel} icon will cancel the changes to reset back to the previously set trim points.

Note: Double clicking on the IN and OUT timecodes allows for editing of trim points, for more accuracy.

4.4 Layer Controls

Layer Controls allows adjustments to be made to the layer properties and can be controlled either directly from the UI or remotely by connecting with **Synergy**.



Similar to the Preview adjustments, the layer controls have the same four sections:

- [Playback \(Section 3.3.1\)](#)

- [Player Controls \(Section 3.3.2\)](#)
- [Crop \(Section 3.3.3\)](#)
- [Colour Correction \(Section 3.3.8\)](#)
- [Transformation \(Section 3.3.9\)](#)
- [Rendering \(Section 4.4.6\)](#)
 - [Virtual Return Properties \(Section 4.4.6.1\)](#)

Any adjustment made will directly change the layer properties, triggering a bank element may override this, if any changes were made in the Preview.

Component

By selecting the *Surface* or *Layer* as a **Component**, you can view the corresponding controls. Each **Surface** and **Layer** has its own set of controls. Surfaces can be found [here](#).

Bank / Element

Media stored in a bank can be played on a layer.

Item	Description
Bank	Select a bank.
Element	Select a Bank Element and launch it.

Reset to Default

Reset To Default is a quick way to reset all of the user adjusted parameters, just as a locate or home button would do on a console.

Sync to DMX

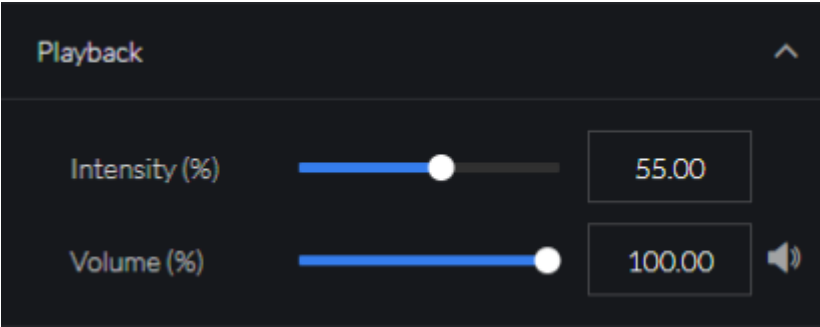
When **Prism** is being controlled from a lighting console using **Synergy**, there might be an occasion where a quick adjustment of the parameters in the **Prism**'s user interface can be preferable. This can result in a mismatch between the values on the console and within the interface.

The **Sync to DMX** is used to allow the Prism UI controls to immediately adjust to the most recently received values from the console. This can be used anytime the UI needs to be kept in line with the external device values.

*Note: Instructions for setting up a **Synergy** Connection can be found on the settings*

4.4.1 Playback

The **Playback** controls the intensity / volume of a bank element playing on a layer.

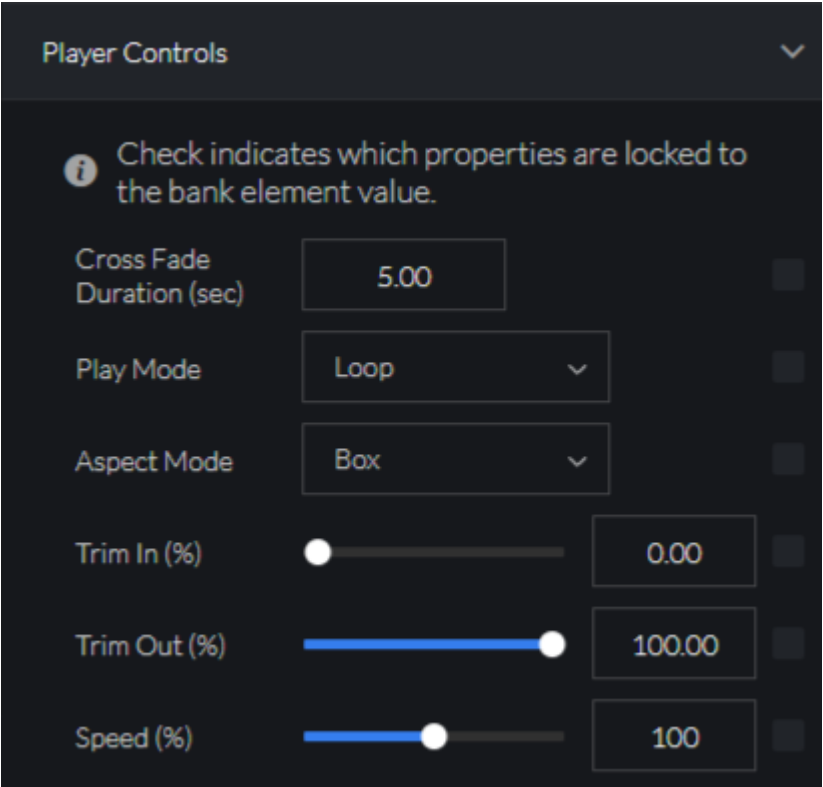


Item	Description
Intensity (%)	Opacity of the layer.
Volume (%) / Mute	Volume of the layer. Whether layer is muted.

4.4.2 Player Controls

This area controls the **Player Controls** of the selected layer.

The **Player Controls** has check boxes against its properties so that users can define whether to use the bank element value or the one that is currently on the layer that it will play on.



Item	Description
Cross Fade Duration	Cross Fade Duration of the layer.

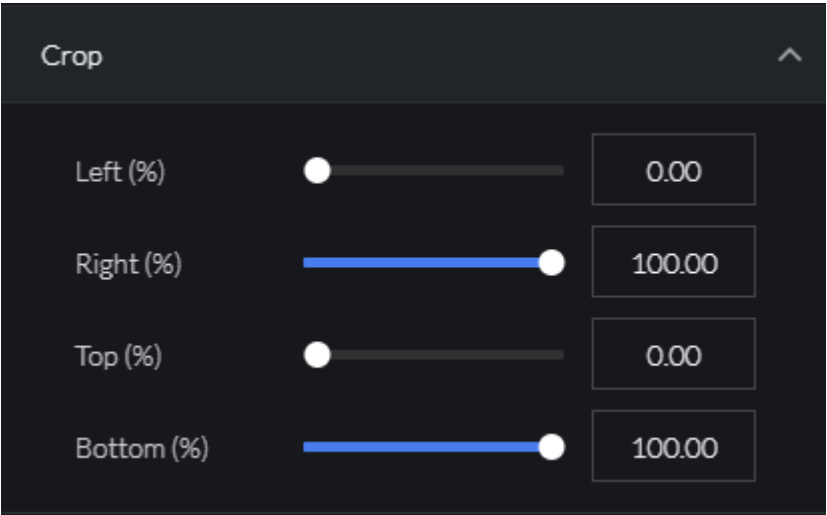
Item	Description
Play Modes	{Play List} - Play through all the media in the bank that the current element belongs to. {Loop} - Continuously play the same media element. {Shuffle} - Randomly select and play media from the bank that the element belongs to. {Play Once} - Play the media once and then display the last frame. {Pause} - Stay on the current frame. {In Frame} - Display the first frame. {Out Frame} - Display the last frame. {Timecode} - Allows playback to be synchronised to an external or internal timecode signal.

Item	Description
Aspect Modes	- Fit: Adjusts the content to cover the entire surface, distorting it if necessary. It does not preserve the aspect ratio, but ensures no cropping and no black bars. - Box: Adjusts the content to fit entirely within the surface while preserving aspect ratio. This ensures the whole content is visible, without cropping or distortion, but may introduce black bars (letterboxing or pillarboxing) to fill unused space. - Center: Adjusts the content to fill the surface while preserving its original aspect ratio. This may result in cropping around the edges. The content remains centered and is not distorted. - Window: Displays the content at its original resolution and aspect ratio, without any scaling. If the content is larger than the surface, parts of it may be cropped. There is no distortion and no scaling applied.

Item	Description
Trim In (%)	Trim In of the layer.
Trim Out (%)	Trim Out of the layer.
Speed (%)	Speed of the layer.

4.4.3 Crop

This area controls the **Crop** of the selected layer



Item	Description
Left (%)	Crop on the left side of the layer.
Right (%)	Crop on the right side of the layer.
Top (%)	Crop on the top side of the layer.
Bottom (%)	Crop on the bottom side of the layer.

4.4.4 Colour Correction

This area controls the **Colour Correction** of the selected layer.



Item	Description
Red (%)	Red Channel of the layer.
Green (%)	Green Channel of the layer.
Blue (%)	Blue Channel of the layer.
Hue Offset (°)	Hue Offset of the layer.
Saturation (%)	Saturation of the layer.
Contrast (%)	Contrast of the layer.
Gamma (%)	Gamma of the layer.

4.4.5 Transformation

This area controls the **Transformation** of the selected layer.

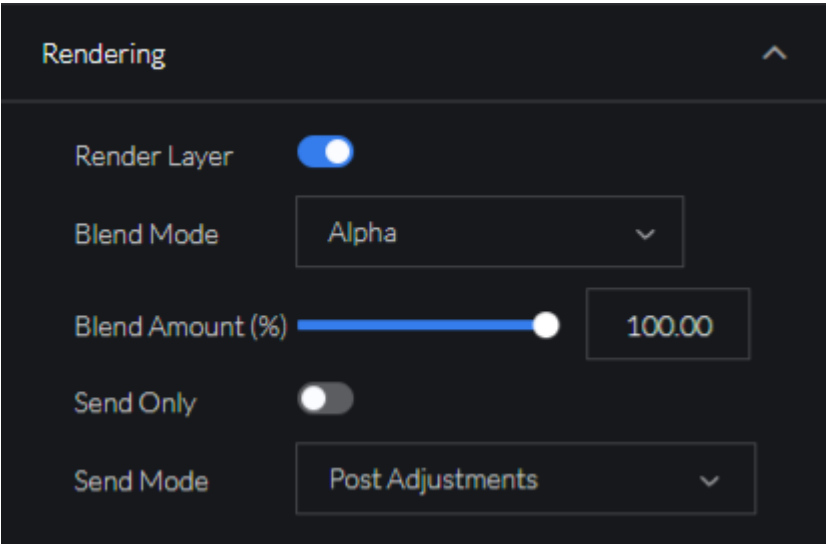


Item	Description
Scale X (%)	Scale X (horizontal scale) of the layer, in relation to the surface size. When pressing the {Lock} icon this will be aspect ratio locked with <i>Scale Y</i> . When pressing the {Unlock} icon this will be set independently from <i>Scale Y</i>
Scale Y (%)	Scale Y (vertical scale) of the layer, in relation to the surface size. When pressing the {Lock} icon this will be aspect ratio locked with <i>Scale X</i> . When pressing the {Unlock} icon this will be set independently from <i>Scale X</i>
Translate X (%)	Translate X (horizontal position) of the layer, in relation to the surface size.

Item	Description
Translate Y (%)	Translate Y (vertical position) of the layer, in relation to the surface size.
Rotate X (°)	Rotate X (x axis) of the layer, in relation to the surface.
Rotate Y (°)	Rotate Y (y axis) of the layer, in relation to the surface.
Rotate Z (°)	Rotate Z (z axis) of the layer, in relation to the surface.

4.4.6 Rendering

This area controls the **Rendering** of Synergy Pixel Map texture.



Item	Description
Render Layer	Toggle the visibility of the layer.

Item	Description
Blend Modes	Blend mode is used to determine how multiple layers are combined to create a final visual result on a Surface. It controls how the pixel colours of one layer interact with the pixels of layers beneath it. - Additive: Combines the values of the pixels, creating a blended image. - Alpha (Default): Allows the use of transparent areas which need to be specified when created. - Darken: Keeps the darkest colour from the blended Layers. - Difference: Subtracts one colour value from the other and uses the result as the pixel colour to display. - Exclude: Similar to Difference mode but with lower contrast. - Intensity Mix: Blends Layers based on their intensity - Inverse Luma: Excludes areas of the image based on the luminosity of the pixels and the specified threshold. - Inverse Mask: Uses the layer as a mask for the layer below showing the image in the dark areas. - Lighten: Shows the highest of each colour component used across layers. - Luma: Excludes areas of the image based on the luminosity of the pixels and the specified threshold. - Mask: Uses the layer as a mask for the layer below showing the image in the light areas. - Multiply: Takes the values of the images, multiplies them together and returns the resulting value. - Not Additive Mixing: Non Additive Mixing shows the brightest pixel of the layers. - Opaque: Fully solid with no transparency. - Screen: Takes the values of the pixels of the two layers inverts, multiplies, and then inverts them again.

Item	Description
Blend Amount (%)	The blend amount controls the transition between the source (blended layer) and the destination (background layer) when applying a blend mode. It determines how much influence the blended source has over the final output, effectively interpolating between the two. When the blend amount is set to zero, the operation acts as a pass-through, meaning the destination remains unchanged, as no blending is applied.
Enable Adjustments	Enable / disable Layer adjustments e.g crop, colour correction, transformations.

Virtual Return Properties

Will only affect **Virtual Return** bank elements.

Item	Description
Send Only	When enabled, the layer will be ignored in the final Surface mix but will remain accessible for Virtual Return. This can improve performance when a layer is only needed for Virtual Return access and does not need to be included in the final Surface composition.
Send Pre Adjustments	Specify whether Virtual Return should access the layer before or after layer adjustments are applied.

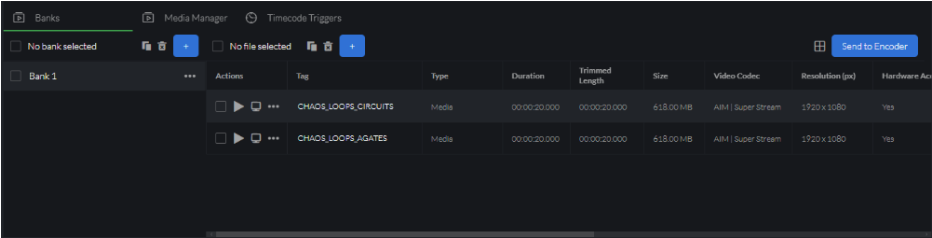
4.5 Banks

Banks provide a versatile space for managing media. They can be reordered, renamed, and imported or exported to use in other projects.

The **Banks** area can be displayed in two views: *Table* or *Grid*.

4.5.1 Table View

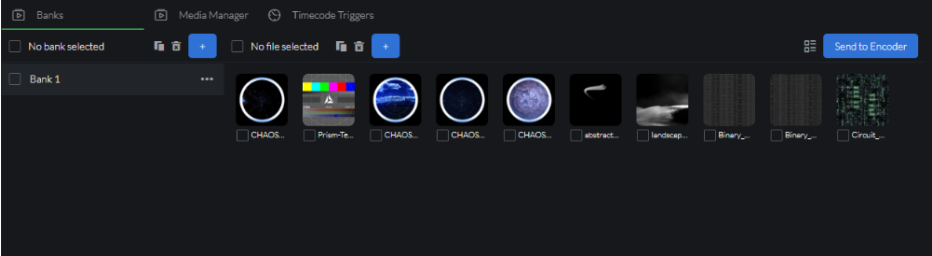
Table View gives more information about video / audio codecs, resolution, whether hardware acceleration is available on the media and much more.



Users can playback elements using the {Play} button and preview elements with the {Preview} button.

4.5.2 Grid View

Grid View allows for easier triggering of clips due to the larger trigger area, thumbnails are shown here and are also stored on the **Prism Media Cache**.



Pressing the {+} button will add a new **Bank**, each with its own {Sub Menu}

Sub Menu

Item	Description
Rename	Renames the Bank
Remove	Deletes the Bank and its contents
Duplicate	Duplicates the Bank and its contents, including any Bank element property changes
Import	Replaces the Bank with the saved Bank. See Import & Export for more details.

Item	Description
Export	Saves the Bank to a file. See Import & Export for more details.

4.5.3 Bank

To add new media to a Bank, select the Bank you wish to add to, and simply drag and drop your files or press the {+} button.

4.5.4 Bank Element

Bank elements can be rearranged by dragging them around in both table view and grid view.

Element Types

Image

Supports standard image types, such as **PNG, JPG, GIF**, etc.

Audio

Supports standard audio types, such as **MP3, WAV**, etc.

Video

Supports natively **Avolites AiM**, **NotchLC**, and **HAP**. Additionally, other standard video codecs such as **H264, H265, ProRes**, etc., are also supported.

To enhance playback performance, consider transcoding media into **Avolites AiM** codec. Media can be added to the encoder list by the {Send To Encoder} button.

NDI® Input

A list of active NDI® sources on the network. Please see both Settings and Preview pages in order to setup and select NDI® Sources.

Prism NDI® sources use the **NDI® SDK**, a list of all features can be found [here](#).

[NDI®](#) is a registered trademark of Vizrt NDI AB.

Live Input

Any connected capture devices on the system. Please see both Settings and Preview pages in order to setup and select Webcam / Capture Devices.

Virtual Return

The Virtual Return element enables one layer in the project to receive the rendered output of surface or another layer.

Network Stream

The Network Stream element allows to receive and display live video streams transmitted over a network. It is typically used to connect to IP cameras, media servers, or other streaming devices that provide real-time video via standard streaming protocols such as RTSP.

Actions

Play

A layer must be selected in order to play elements

Preview

When previewing an element, adjustments can be made to its properties, please see Preview for more details on how this works.

Sub Menu

Opening the {Sub Menu} on individual elements allows access to the following actions:

Item	Description
Remove	Deletes the element from the Bank
Replace	Replaces the element from the Bank with new media
Preview	Preview and adjust properties of the Bank element
Duplicate	Add a new copy of the Bank element, including all settings
Show In Folder	Open file explorer and navigate to the element's media file
Copy	Copy the clip controls set within Preview
Paste	Paste the clip controls from one bank element to another

4.5.5 Import/Export

Please see Import/Export for reference.

Note: It is also possible to import Banks by simply dragging and dropping them in the drag and drop area.

4.6 Media Manager

Media Manager shows all media files currently used by the *Project*. It provides an overview of each media file's properties and indicates how many *Banks* and *Bank Elements* are referencing the file at its source location.



Name	Source	Uses	Duration	Size	Video Codec	Resolution (px)	Hardware Accelerated	FPS	Audio Codec	Audio Bitrate	Audio SampleRate	Audio Channels
...	M:\A\Content\Library\SS2\Bios\Projector\Camera\Raw_OG\...	1-1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
...	M:\A\Content\Library\SS2\Bios\Projector\Camera\Raw_OG\...	1-1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
...	M:\A\Content\Library\SS2\Chassis\CHASSIS\LOGIC\BUTTERFLY\...	2-2	00:00:20:000	618.001kB	ARM1 Super Stream	1920 x 1080	Yes	25 FPS	No Audio	No Audio	No Audio	No Audio
...	M:\A\Content\Library\SS2\Chassis\CHASSIS\LOGIC\CELL\...	2-2	00:00:20:000	618.001kB	ARM1 Super Stream	1920 x 1080	Yes	25 FPS	No Audio	No Audio	No Audio	No Audio
...	M:\Prism\Assets\Default\Media\Prism\Text\image\H0.png	1-1	n/a	75.12 kB	png	1920 x 1080	No	n/a	n/a	n/a	n/a	n/a

Actions

Replace

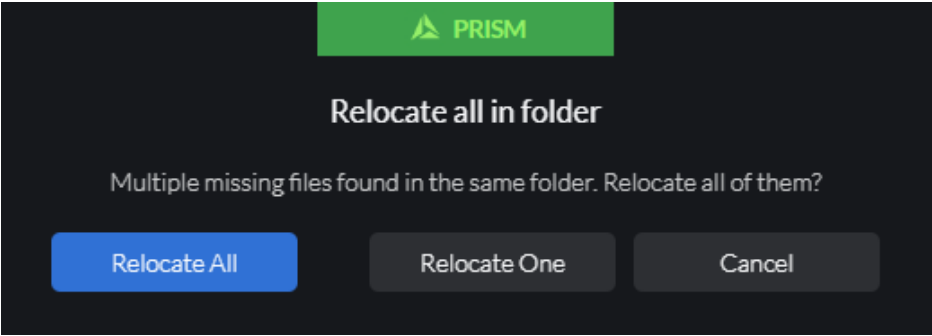
Opens file explorer to choose a media file which will replace the current one.
All instances in use in *Banks* will be replaced. All **Tag** values will be preserved after replacing the media file.

Show in Finder

Opens the file explorer in the location of the media file.
Hovering over the **Source** file name and clicking on the file path will navigate to the location.

Relocate

If a media file is missing from the expected location, relocate can be used to specify the new location.
Pressing relocate opens file explorer. Navigate to the new location of the missing media file and *Open* the file.
If multiple missing files match with files located in the selected folder, a pop-up is opened.
Replace only the media file on which the action was triggered by clicking **Relocate One**, all matching files by clicking **Relocate All** or cancel the action by clicking **Cancel**.



Filter By

It is possible to filter the table rows by:

- **All media** - Shows all media files in use in *Banks*.
- **Missing media** - Shows only the media files which are missing, i.e. are not present anymore in the original location on the file system.

Source location of **Missing media** are highlighted in orange and the navigation to the source location is disabled.

The screenshot shows the Media Manager interface with a table of media files. The 'Filter by' dropdown is set to 'Missing media', showing 2 entries. The table has columns for Actions, Source, Users, Duration, Size, Video Codec, Resolution (px), Hardware Accelerated, FPS, Audio Codec, Audio Bitrate, Audio SampleRate, and Audio Channels. Two rows are visible, both with orange text for the Source column, indicating missing media.

Actions	Source	Users	Duration	Size	Video Codec	Resolution (px)	Hardware Accelerated	FPS	Audio Codec	Audio Bitrate	Audio SampleRate	Audio Channels
---	M:\Out Content Library\2022\Projects\Project\Channel\HLS\OT\HLS	1 / 1	0:06	0:06	H.264	1080	0:06	0:06	0:06	0:06	0:06	0:06
---	M:\Out Content Library\2022\Projects\Project\Channel\HLS\OT\HLS	1 / 1	0:06	0:06	H.264	1080	0:06	0:06	0:06	0:06	0:06	0:06

Scan Media

Relocates missing media files by checking their original file system locations. This is useful for refreshing the **Media Manager** after media files have been removed and then added back to the same location.

4.7 Timecode Triggers

The **Timecode Triggers** panel is used to create and manage **Timecode Triggers**, which automatically launch bank elements on specific layers when the incoming timecode reaches a defined value.

Each **Timecode Trigger** is defined by: - A timecode value - A target layer - A bank - A bank element

Trigger Behavior

- When the incoming timecode reaches the trigger's time, the assigned bank element is automatically launched on the specified layer.
- When triggered, the event overrides any media currently playing on the target layer.
- Triggered timecode events are visually highlighted in the panel.
- Layers associated with timecode triggers display a **Timecode Trigger** badge for easy identification.

Managing Triggers

The Timecode Triggers panel allows to: - Add new timecode triggers - Remove existing triggers - Duplicate triggers for faster setup

All **Timecode Triggers** are stored as part of the current project and are restored when the project is re-opened.

Ordering and Visibility

Timecode Triggers are automatically ordered by timecode.

This ordering reflects the sequence in which triggers will be activated during playback.

Note: Timecode-based features require that **Timecode** is enabled in the Timecode Settings.

4.8 Timecode

4.8.1 Timecode Panel

The **Timecode** panel displays the current timecode value. The timecode can either be **internally generated** or received from an **external source**.

To use the Timecode panel, ensure that **Timecode** is enabled in the Timecode Settings, and select the desired timecode source.

Using Internal Timecode

When using the **Internal** timecode:

- It is generated within the application.
- It can be **started, paused, and stopped** from the **Play** page.

Using Timecode with Layers and Triggers

- To synchronize a layer with the timecode, set the layer playmode to timecode on the Layer Controls.
- To launch a specific bank element on a layer at a precise time, use Timecode Triggers.

Both **internal** and **external** timecodes can be adjusted using an **offset** to fine-tune synchronization.

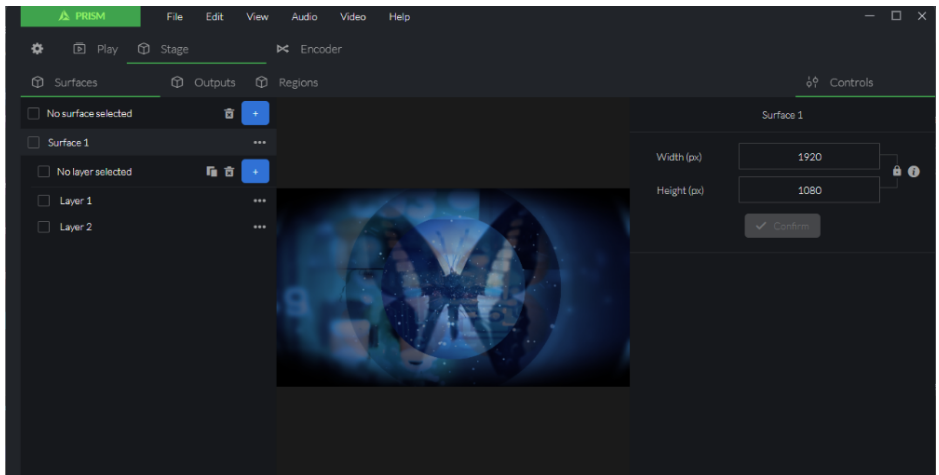
5 Stage

5.1 Stage

The **Stage** page is the main workspace for setting up the resources for the rendering pipeline.

It is composed of three pages:

- Surfaces set up and manage **Surfaces** and **Layers**.
- Outputs set up and enable **Outputs**.
- Regions map **Surfaces** and **Layers** to **Outputs**.



Note: Any changes on these pages may cause the outputs to pause whilst changes are being applied.

5.2 Surfaces

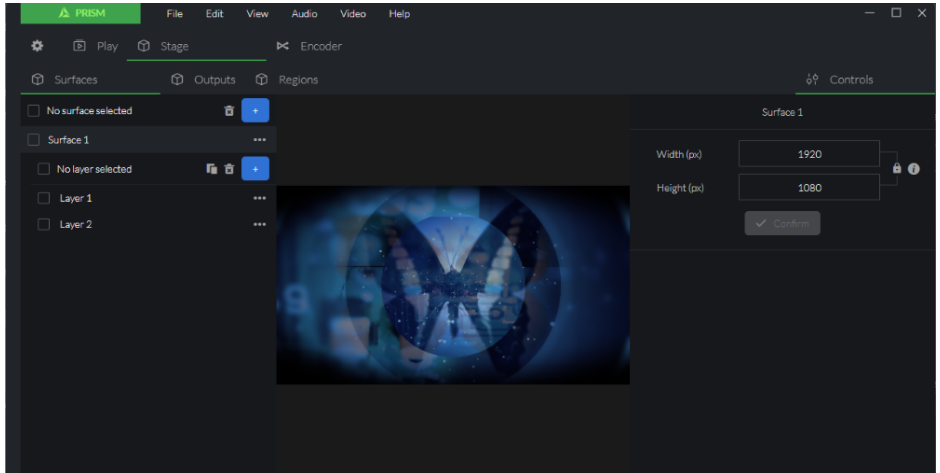
The **Surfaces** page is where **Surfaces** and **Layers** are setup and managed.

A **Surface** is the virtual canvas where visual content is displayed, such as screens, LED walls, or projections. It defines the resolution for media to be mapped, scaled, and adjusted for precise display.

Each **Surface** can hold up to 16 **Layers**.

Use the **Regions** page to map a **Surface** or **Layer** to an **Output**.

Note: any changes on this page may cause the output to pause whilst changes are being applied.



Note: clicking on the header tick box or using the CTRL+A shortcut will select all layers.

Pressing the {Sub Menu} icon on individual elements allows access to the following actions: - **Rename** - Rename the layer. *Note: double clicking on the surface / layer tag will allow to rename it.* - **Remove** - Delete the layer from the surface. *Note: selecting the layer and pressing BACKSPACE or DELETE buttons will delete the layer.* - **Duplicate** - Add a new copy of the layer. *Note: selecting the layer and pressing CTRL+D shortcut will duplicate the layer.*

5.2.1 Surface Controls

The surface resolution can be set in the **Controls** panel and should match against the selected output resolution.

Resolution width and height values can be linked / unlinked by clicking on the {Lock} / {Unlock} icon. When {Lock} icon is shown, width and height will always maintain relative size according to the aspect ratio of the width and height set as the lock is pressed - if one value is adjusted, the other will change accordingly. When {Unlock} icon is shown, width and Height can be individually set regardless of the resulting aspect ratio.

Note: width will always adjust to nearest 64 pixels multiple

5.2.2 Synergy Control

As mentioned, once connected to Synergy, this area will be locked from the above features. Titan now has primary control of adding and removing layers / surfaces.

5.3 Outputs

The **Outputs** page is used to create, configure, and manage all output destinations of the software. **Outputs** define where the final video signal is sent, such as local displays, network streams, or other supported output types.

Each output operates independently and reflects the current program output, including video sources, transitions, overlays, and effects.

Prism supports multiple output types, including:

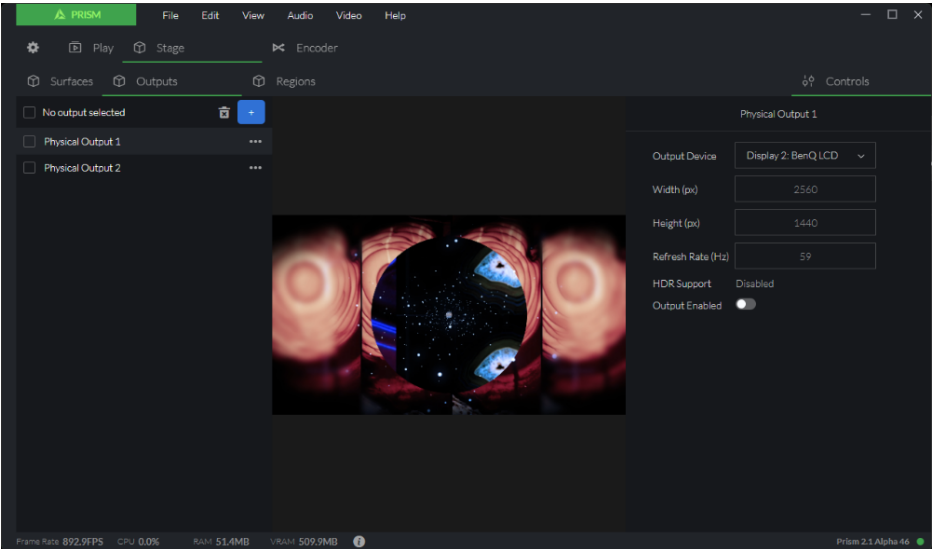
- **Physical Outputs (Section 5.3.1)**: Send the video output to a connected monitor, projector, or video wall.
- **NDI® Outputs (Section 5.3.2)**: Send the video output over the network.
- **RTSP Outputs (Section 5.3.3)**: Send the video output as a live RTSP stream to other devices or applications on the network.

Use the **Regions** page to map a **Surface** or **Layer** to an **Output**.

Note: Any changes on this page may cause the outputs to pause whilst changes are being applied.

5.3.1 Physical Output

A Physical Output is used to send video to a physical display device, including projectors, monitors, and LED walls. It defines the connection between the software and an external output device.



Physical Output Controls

A list of all connected video output devices, will appear in the *Output Device* drop-down. Selecting an output device will show its properties, automatically populated:

- Width
- Height
- Refresh rate
- HDR support

5.3.2 NDI® Output

The NDI® Output allows the software to send its video output over the network.

NDI® Output Controls

The following output properties can be set:

- Name
- Width
- Height
- Frame rate

To confirm any change to these properties click on the {Confirm} button.

Resolution width and height values can be linked / unlinked by clicking on the {Lock} / {Unlock} icon. When {Lock} icon is shown, width and height will always maintain relative size according to the aspect ratio of the width and height set as the lock is pressed - if one value is adjusted, the other will change accordingly. When {Unlock} icon is shown, width and Height can be individually set regardless of the resulting aspect ratio.

Note: Width will always adjust to nearest 64 pixels multiple.

NDI® is a registered trademark of Vizrt NDI AB.

5.3.3 RTSP Output

The RTSP Output allows the software to send its video output as a live network stream using the RTSP (Real-Time Streaming Protocol). This makes the output available to other devices or applications on the network, such as media players, hardware decoders, streaming servers, or monitoring systems.

The RTSP Output acts as a live source, continuously sending video in real time.

RTSP Output Controls

Item	Description
Width / Height	Sets the output resolution of the RTSP stream in pixels. This determines the size and detail of the transmitted video.
Frame Rate	Defines the number of frames per second (FPS) sent in the stream. Higher values produce smoother motion but require more processing power and bandwidth.
Encoder	Selects the video encoder used to compress the stream. Available options may include CPU-based encoders and hardware-accelerated GPU encoders, depending on system capabilities.
GOP	The GOP (Group of Pictures) sets the interval between keyframes. Lower values reduce latency and improve stream recovery, while higher values improve compression efficiency.
Bit Rate	Specifies the target data rate of the stream. Higher bit rates improve image quality but increase network usage.
IP Address	The network address on which the RTSP stream is hosted. Clients must use this address to connect to the stream.
Port	RTSP typically uses port 554 by default, but any available TCP port can be configured.
Stream Name	Identifies the stream path used in the RTSP URL. This name is appended to the address to form the complete stream URL.

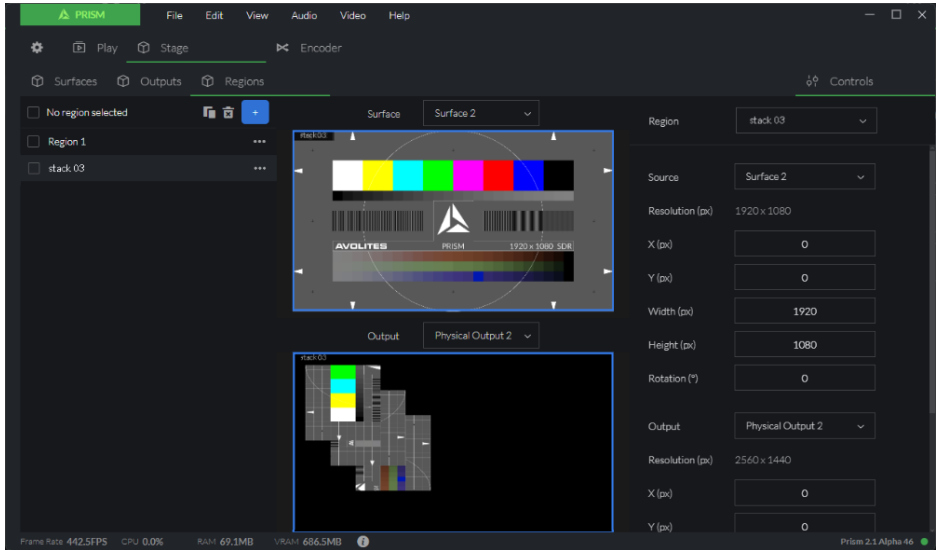
Note: The RTSP output URL (for example, `rtsp://address:port/path`) must be unique. Multiple RTSP outputs cannot share the same URL; otherwise, starting the output will fail.

5.4 Regions

The **Regions** page is used to map a surface or layer to an output. It defines how content from a selected source is sampled, positioned, and displayed on the chosen **Output**.

Regions allow to select a source (surface or layer) and map it to an **Output**, controlling how the content appears on the target display or stream.

Note: any changes on this page may cause the output to pause whilst changes are being applied.



Region Types

Regions can be created in two different types, depending on the mapping requirements:

- **Rectangular Regions**

Rectangular regions define a simple, rectangular sampling area from a surface or layer. They are ideal for standard displays, projectors, and basic output mappings.

- **3D Model Regions**

3D Model regions use a **3DS** model to define more complex mapping configurations. This allows content to be mapped onto irregular or non-rectangular surfaces, such as LED sculptures or architectural installations.

Canvas Area

The Source/Output dropdowns in the center of the application allow to preview both the selected input surface and the corresponding output composition.

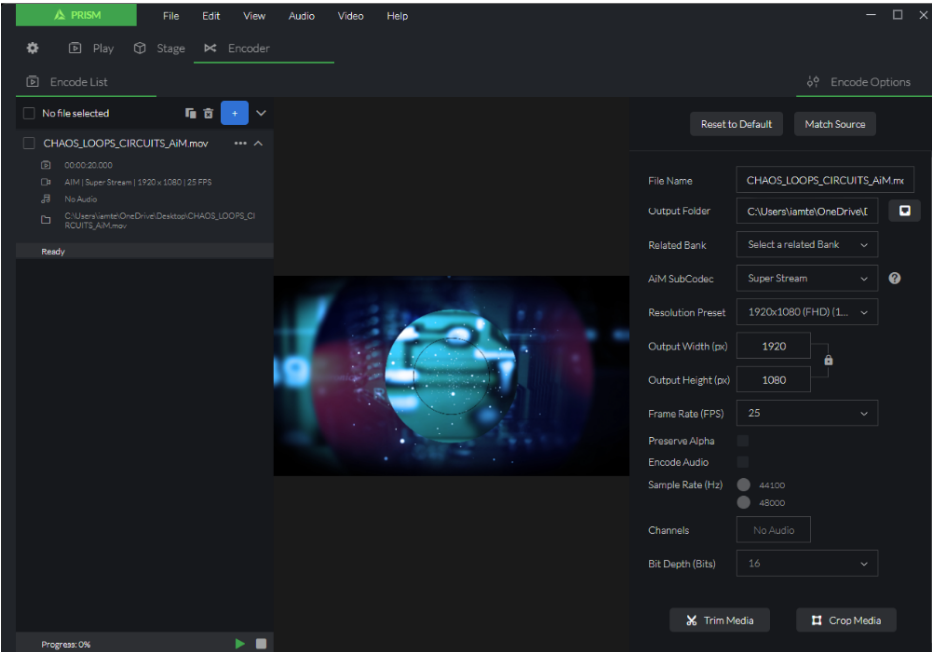
Region Controls

Selecting a **Region** to show its controls to the right. Here is where a *Source* can be selected to sample from, and an *Output* can be selected to display the **Region** onto.

6 Encoder

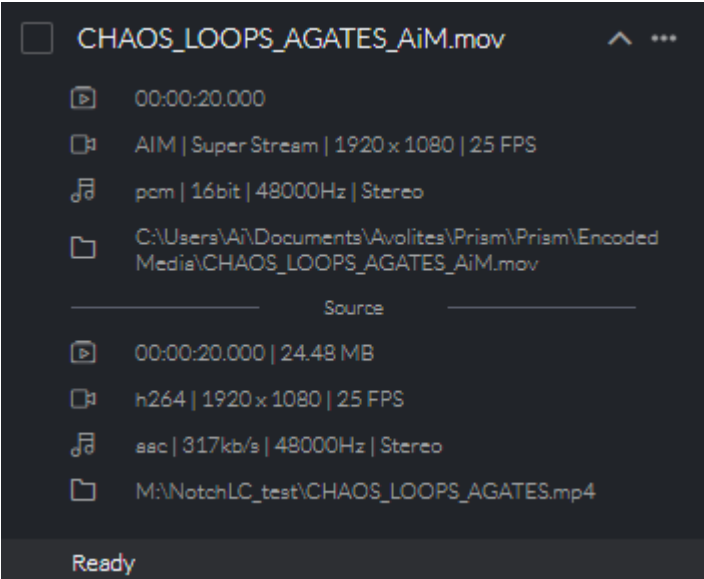
6.1 Encoder

The **Encoder** allows for files to be converted from common video codecs into the **AiM** codec in preparation for use on a live production.



Encode Element

When a piece of media is loaded into the **Encoder**, several details about the file can be viewed:



- The length of the encoded media.
- The video codec, sub-codec, resolution and frame rate of the encoded media.
- The audio codec, bit depth, sample rate and channels of the encoded media.
- The destination folder of the encoded media.
- The current status of the job - *Ready, In Progress or Done.*

Opening the {Sub Menu} on individual elements allows access to the following actions:

Item	Description
Collapse/Expand	to collapse or expand the element details.
Hide Source/Show Source	to hide or show the details of the source media file and help compare changes made in the Encode Options .
Rename	to set the file's tag name, to be used as the destination file name.
Remove	to open Encode Options relative to this element.
Settings	to collapse or expand the element details.
Duplicate	to create a copy of the element, ready for encoding.
Show In Folder	to open the location of the encoded media that has been set in the Output Folder setting.

The order in which the elements are arranged will be the order of the encoding queue this can be changed by dragging and dropping the element to another position in the queue.

At the bottom of the **Encoder** queue a readout shows the completion percentage of the total jobs. Next to this are the {Play} / {Pause} and {Stop} buttons which control the encoding process.

Import/Export Encode Lists

Please see Import/Export section for reference.

6.2 Encode Options

This section let users specify the settings to be applied on an Encode List item. It is accessible by selecting an element or by left clicking the {Sub Menu} icon next to the Encode List item name and then clicking on **Settings**.

The results of these settings will be applied once the item is encoded.

 Encode Options

Reset to Default

Match Source

File Name

CHAOS_LOOPS_CIRCUITS_AiM.mkv

Output Folder

C:\Users\iamte\OneDrive\I



Related Bank

Select a related Bank

▼

AiM SubCodec

Super Stream

▼



Resolution Preset

1920x1080 (FHD) (1...

▼

Output Width (px)

1920



Output Height (px)

1080

Frame Rate (FPS)

25

▼

Preserve Alpha

☐

Encode Audio

☐

Sample Rate (Hz)

☒ 44100

☐ 48000

Channels

No Audio

Bit Depth (Bits)

16

▼

 Trim Media

 Crop Media

Item	Description
Reset to Default	This button will reset all settings to default value.
Match Source	This button will set the following settings to match those of the source media file: - Resolution Preset - Output Width - Output Height - Frame Rate - Sample Rate - Bit Depth Any user changes to the audio and video settings will be discarded when pressing this button.
File Name	Is the name assigned to the encoded item after encoding. It can be modified by double-clicking in the name box.
Output Folder	Is the destination folder of the encoded file. It can be modified by clicking the {Change Folder} button. The default value of the destination folder is the one selected in the Settings > Encoder tab.
Related Bank (Prism Only)	This is the destination Bank for the encoded media. If the element is sent to the encoder through the {Send To Encoder} button in Banks, then this value will be defaulted to the bank from which the element has been sent.
AiM SubCodec	Selection of the AiM SubCodec: - Super Stream: Highest quality image and best playback performance. - Performance: Produces the smallest files but can suffer on complex imagery. - Quality: Medium quality image, variable file size depending on content.
Resolution Preset	It is possible to choose the video resolution from a selection of standard formats. Selecting a preset will override any user width and height values.

Item	Description
Output Width	User definable horizontal size in pixels. Width and Height values can be linked / unlinked by clicking on the {Lock} / {Unlock} icon. When {Lock} icon is shown, Width and Height will always maintain relative size according to the aspect ratio of the Width and Height set as the lock is pressed - if one value is adjusted, the other will change accordingly. When {Unlock} icon is shown, Width and Height can be individually set regardless of the resulting aspect ratio.
Output Height	User definable vertical size in pixels. Width and Height values can be linked / unlinked by clicking on the {Lock} / {Unlock} icon. When {Lock} icon is shown, Width and Height will always maintain relative size according to the aspect ratio of the Width and Height set as the lock is pressed - if one value is adjusted, the other will change accordingly. When {Unlock} icon is shown, Width and Height can be individually set regardless of the resulting aspect ratio.
Frame Rate	User definable frame rate in frames per second.
Preserve Alpha	Ticking the box will include an Alpha Channel in the render. Adding an alpha channel will increase the file size by approximately 33%. An Alpha Channel may only be included in the exported file if the source file contains Alpha data.
Encode Audio	Ticking the box will include the specified number of audio channels in the exported file.

Item	Description
Sample Rate	Sample rate can be set to either: - 44100 Hz - 48000 Hz
Channels	The following channel configurations are supported: - Mono - Stereo - 5.1 - 7.1 Prism can only convert existing audio channels, it cannot alter the amount of channels in the source file.
Bit Depth	Bit depth can be set between: - 8 bits - 16 bits - 24 bits - 32 bits The higher the bit rate, the greater the detail and dynamic range of the audio.

Encode Presets

Encode Presets allow to create and save presets for encoding settings. Presets can be recalled to quickly apply consistent encoding configurations without manually adjusting individual parameters.

Trim Media

To adjust trim points press the {Trim} button at the bottom of the panel.

Trim Media

- Select a position in the text box below
- Press ↑ / ↓ arrows to + / - values based on position.
- Press ← / → arrows to change cursor position.

Trim IN point	00:00:00.000
Trim OUT point	00:00:20.000
Total length	00:00:20.000

Confirm

Cancel

Trim values can be manually entered into both the Trim IN Point and Trim OUT Point boxes either by typing the value or using the arrow keys in the current fields.

The total duration of the exported clip will be calculated as the difference between Trim OUT Point and Trim IN Point.

*Note: The new duration may not exceed the duration of the source media and the Out Point will always have a higher millisecond value than the In Point.

Crop Media

To set a crop area press the the {Crop} button at the bottom of the panel.



- **X** and **Y** specifies the starting pixel for the top left corner of the cropping area to be drawn from.
- **Width** and **Height** sets the size of the area to be cropped, starting from the specified **X** and **Y** values.

Note: It is not possible to crop the exported file beyond the width and height of the source file.

Width and **Height** values can be linked / unlinked by clicking on the {lock} / {unlock} icon.

- When {lock} icon is shown **Width** and **Height** will always maintain relative size according to the current aspect ratio of the **Width** and **Height**. If one value is adjusted, the other will change accordingly.

- When {unlock} icon is shown **Width** and **Height** can be individually set regardless of the resulting aspect ratio of the cropped area.

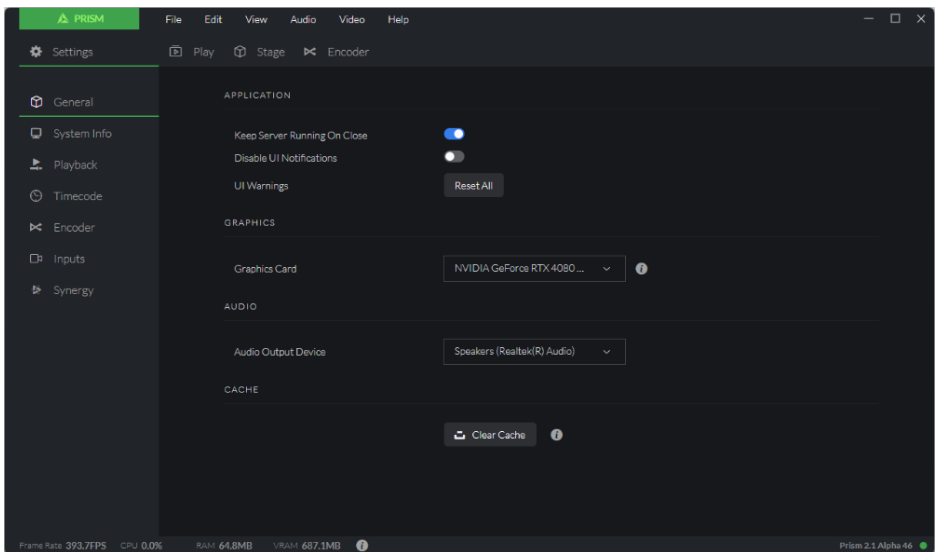
7 Settings

7.1 Settings

The settings window includes multiple sections for user-adjustable parameters and also provides feedback about the machine currently in use.

7.2 General Settings

The **General Settings** page provides global configuration options for **Prism**,



There are four sections: - **Application** - Controls settings related to the application's user interface (UI). - **Graphics** - Controls settings for the application's graphics performance and quality. - **Audio** - Controls settings for the application's audio output. - **Cache** - Controls settings for the application's caching system.

Application

Item	Description
Keep Server Running On Close	Choose whether the application continues running after closing the UI. When enabled, the application stays active in the system tray and continues assigned tasks even after the UI is closed. When disabled, closing the UI will fully exit the application regardless of its current state.
Disable UI Notifications	Toggle UI notifications on or off. When enabled, messages from the application appear at the top of the UI.
UI Warnings	Resets the status of UI warnings. For example, if a “Render Warning” popup is disabled by selecting “Don’t show this message again,” pressing this button will re-enable that warning so it appears again when relevant.

Graphics

Item	Description
Graphics Card	List of available GPUs on the system. The selected device will be used by the application to output video frames.

Audio

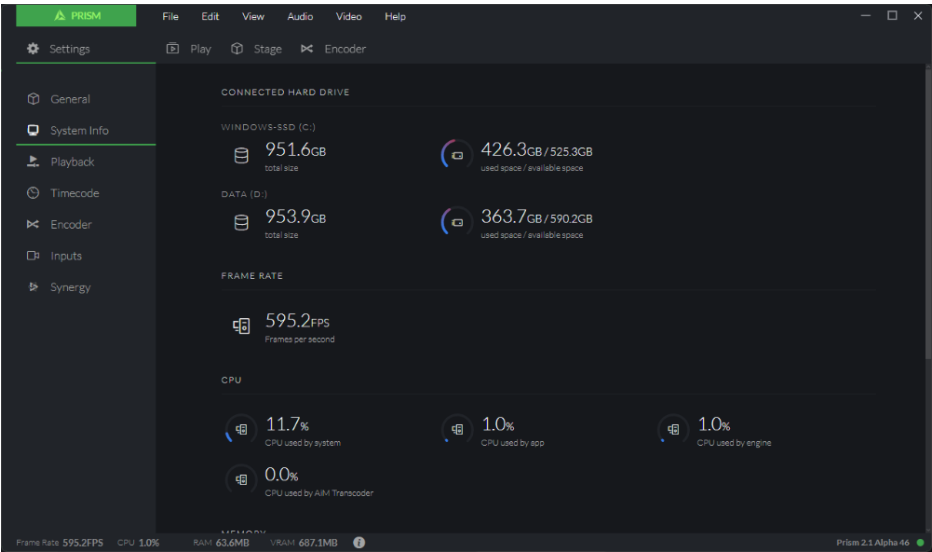
Item	Description
Audio Output Device	List of available audio output devices on the system. The selected device will be used by the application to output master audio.

Cache

Item	Description
Clear Cache	Clears bank elements informations and thumbnails, resets Inputs settings and clears Undo/Redo history.

7.3 System Info

This page shows general system information and performance metrics of the system and the application. App specific performance metrics are also displayed in the status bar at the bottom of the application UI.

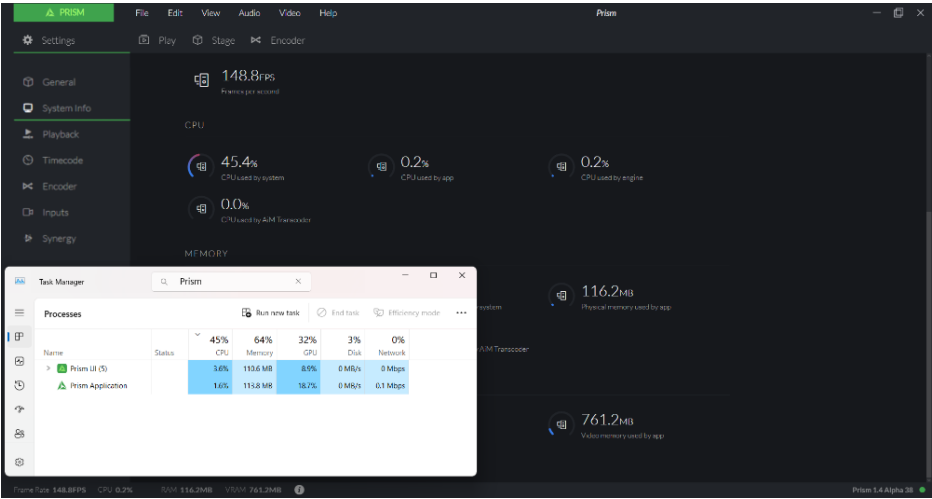


Item	Description
Connected Hard Drive	This section shows the hard drives connected to the system. For each hard drive the total storage space, the used space and the available space are displayed.
Frame Rate	This section shows the rate at which the app is displaying video frames.
CPU	This section shows the overall system CPU load and the app CPU load. Furthermore, it shows the engine process CPU load and the AiM Transcoder process CPU load. The app CPU load is the sum of these two values.

Item	Description
Memory	This section displays the total system memory available, the memory used by the app, and the overall system memory usage. It also breaks down memory usage by the engine process and the AiM Transcoder process. The app's total memory usage is the sum of the memory used by these two processes.
Video RAM	This section shows the total amount of Dedicated and Shared VRAM available for the selected GPU and the amount in use by the app.

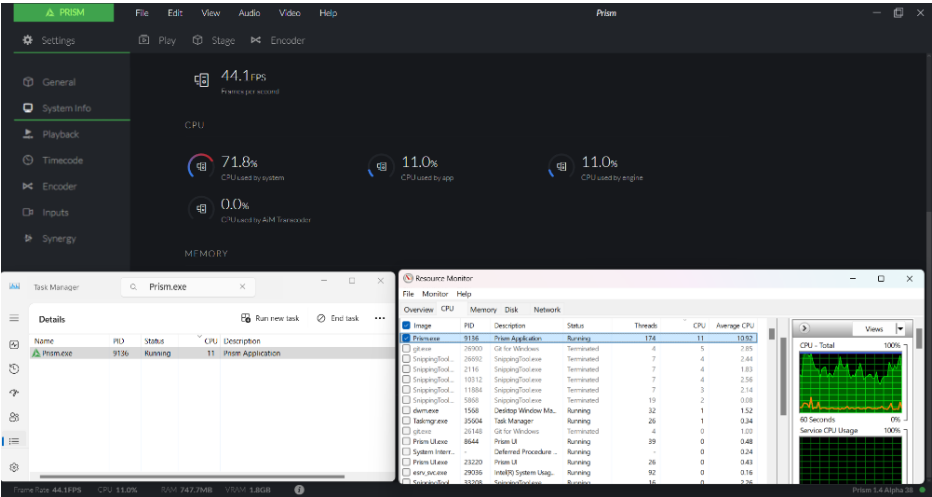
CPU

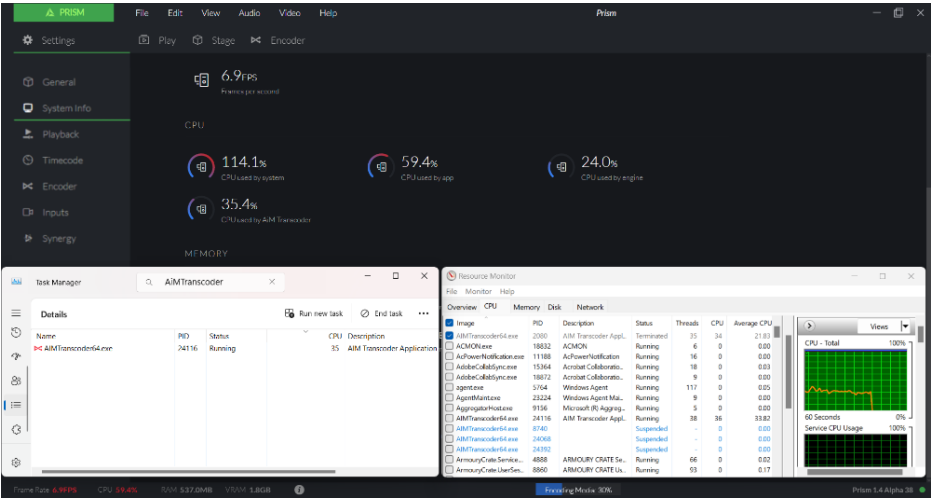
System CPU load is the last obtained value (not an average value), and it is comparable to the *Total processor utilisation across all cores* percentage value shown in Task Manager's Processes tab header - CPU column, in absolute %.



Per-process CPU load (engine process, AiM Transcoder process) is comparable to the value shown in Task Manager's Details tab under the correspondent process details - CPU column, in absolute %.

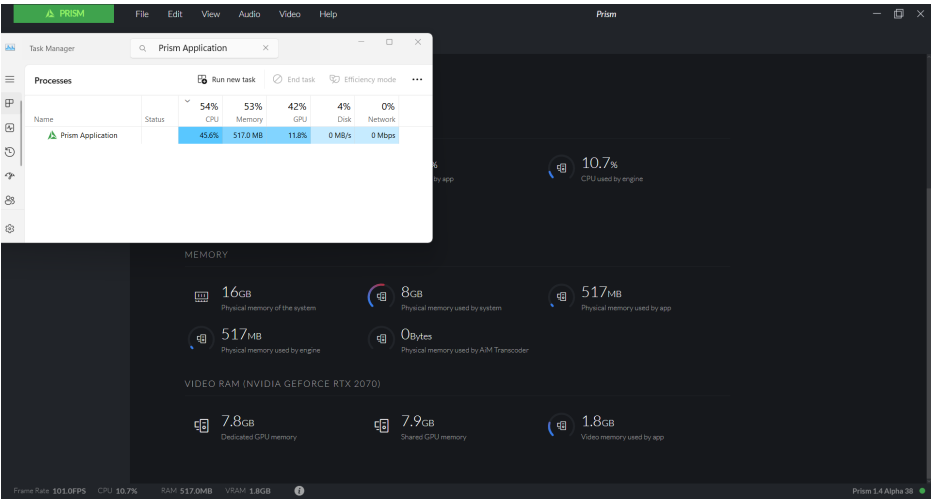
Alternatively, these values can be found in Resource Monitor's Processes tab under CPU column.

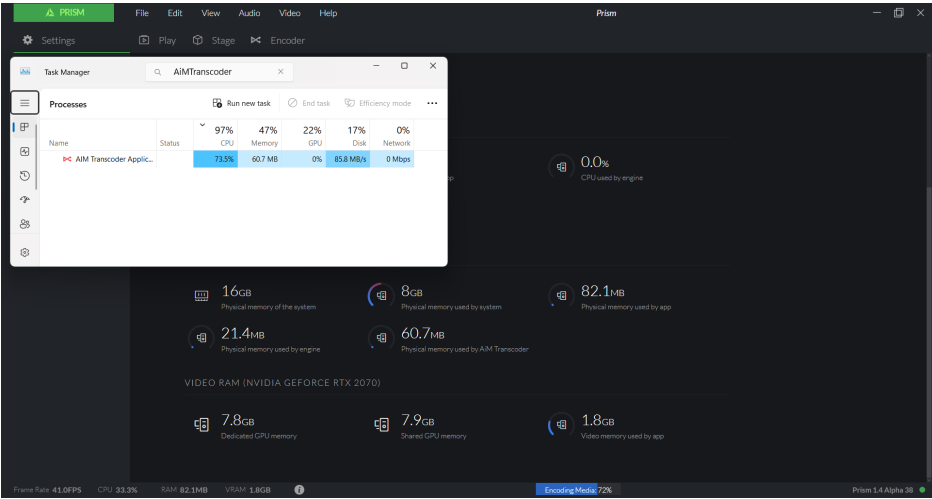




Memory

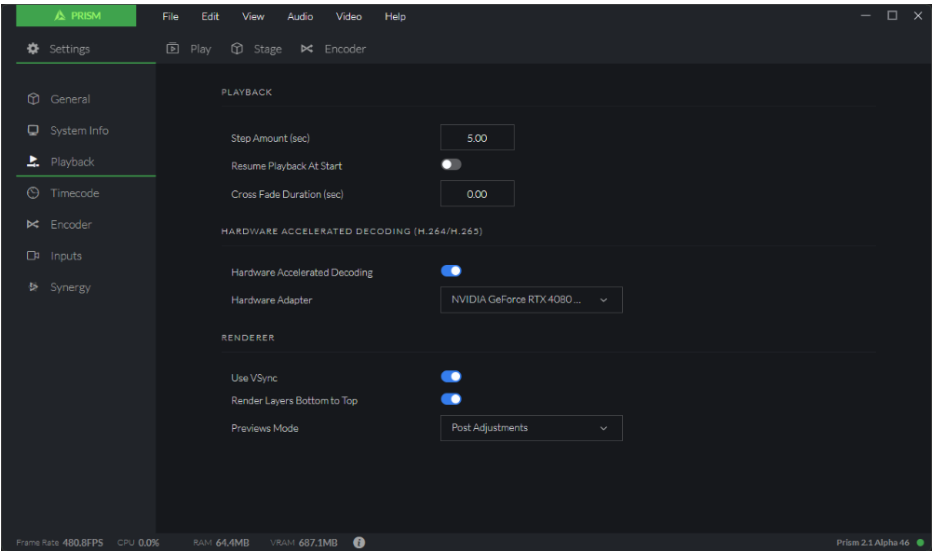
Per-process memory usage is comparable to the value shown in Task Manager’s Processes tab under the correspondent process details - Memory column, in MB.





7.4 Playback Settings

This page shows the settings for the playback of media files.



There are three sections: - **Playback (Section 3.3.1)** - These options will give control over the media player.
- **Hardware Accelerated Decoding (H.264/H.265)** - These options will give control over the media files

decoding using H.264 and H.265 codecs. - **Renderer (Section 7.4.0.3)** - These options will give control over the renderer engine.

Playback

Item	Description
Step Amount	This value will set the step forward or backward on the player timeline, expressed in seconds. To step forwards it is possible to use the right arrow key shortcut. To step backwards it is possible to use the the left arrow key shortcut.
Resume Playback At Start	Enable resuming playback. When enabled, if the app has been previously closed with playing media, once re-opened the media will resume playing.

Cross Fade Duration (Prism Only)| This value will set the default duration in seconds of the cross fade. When loading a media on a Layer or in Preview Window, this duration indicates the time that it will take to fade out the current playing media and to fade in the newly selected media. |

Hardware Accelerated Decoding (H.264/H.265)

Item	Description
Hardware Accelerated Decoding	Enable hardware accelerated decoding for media using H.264 and H/265 codecs. When value is changed, media needs to be re-loaded in order for the update to take place.
Hardware Adapter	List of available GPUs on the system. GPUs which are not supporting H.264/H.265 hardware accelerated decoding are greyed-out.

Renderer

Item	Description
Use VSync	Enable VSync. When enabled the renderer frame rate will be synced to the screen frame rate. This can make playback look smoother and prevent visual issues like screen tearing.

Item	Description
Render Layers Bottom to Top	Controls the order in which layers are drawn within a surface. When enabled the rendering starts with the bottom layer and works upward, when disabled rendering starts with the top layer and works downward.
Use Pre Adjustments Previews	Controls whether layer adjustments are shown in layer previews. When enabled layer previews are shown without adjustments applied, when disabled layer previews are shown with adjustments applied. This setting also affects the previews shown in Synergy .

7.5 Timecode Settings

The Timecode Settings page allows to configure how timecode is processed and displayed within the software. Timecode is used to track playback, synchronize sources, and provide a reference for precise timing.

There are two sections: - **Timecode** - Enable this option to process timecode and display the Timecode Widget on the **Play** page. The widget provides a visual reference of the current timecode value. - **Timecode Source** - Select the source used to generate the timecode.

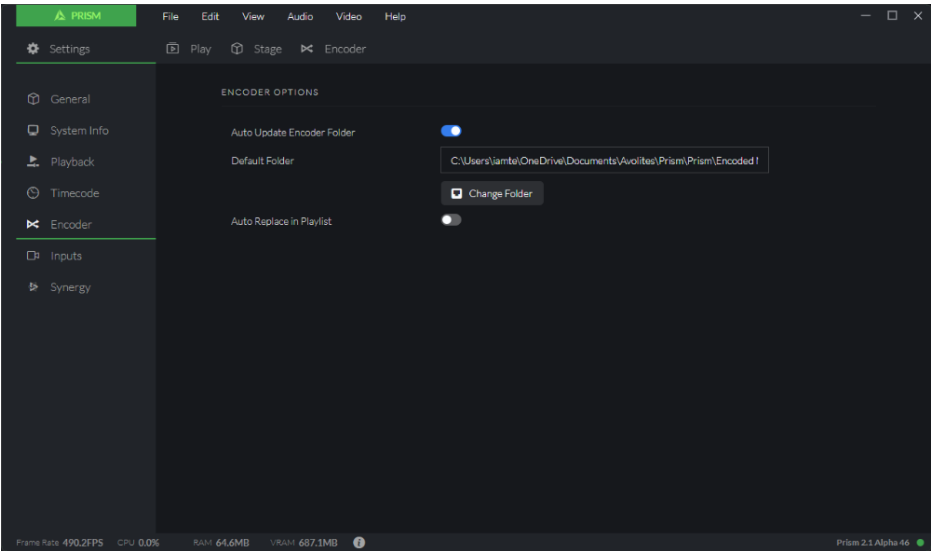
Timecode Source

Select the source used to generate the timecode:

Item	Description
Internal	Uses an internally generated timecode that can be started, paused, and stopped within the application. Once enabled, the timecode can be controlled from the Play page.
LTC	Uses an external LTC (Linear Timecode) module for timecode input. This is useful for synchronizing with external devices or live events. Requires Usb Expert to be enabled.

7.6 Encoder Settings

This page shows the settings for the encoding of media files.

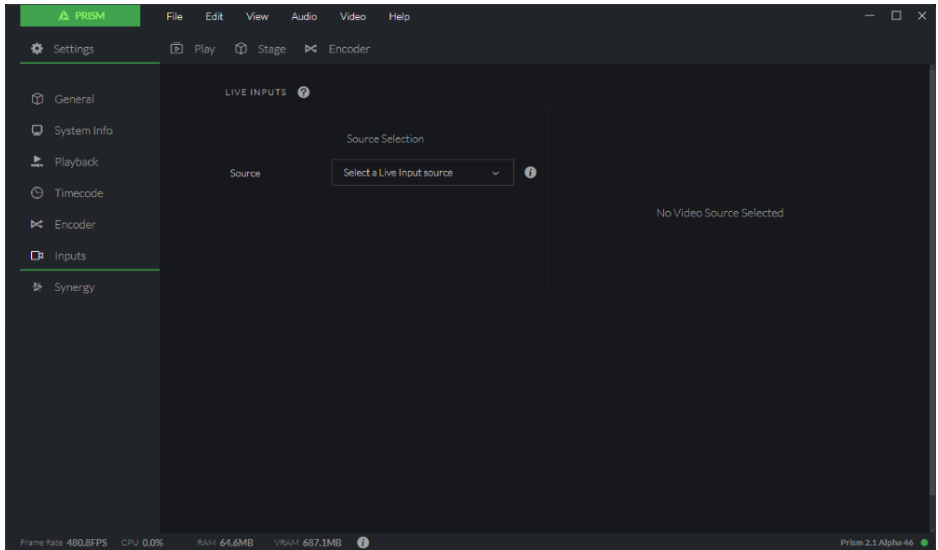


Encoder Options

Item	Description
Auto Update Encoder Folder	Enable automatic updates of the encoded media destination folder. When enabled all existing jobs in the Encode List will have their export destinations updated to the newly specified Default Folder . When disabled only newly added jobs will default to this location whilst pre-existing jobs will retain their already specified output location.
Default Folder	Set the default destination folder for encoded media. By pressing the {Change Folder} button it is possible to update the default destination folder that will be displayed in the box. Encoded media will use this default folder unless a specific export destination has been set for an item in the Encode List element Encode Options .
Auto Replace in Playlist	Enable automatic replacement of the source media.

7.7 Inputs Settings

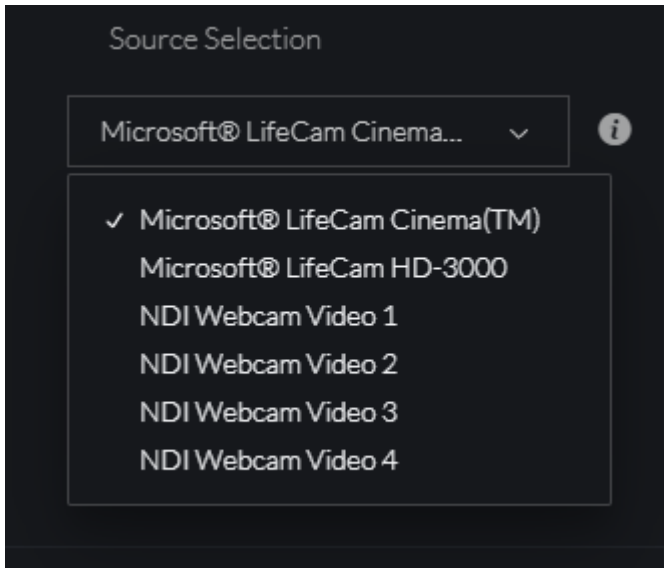
This page shows the list of physical inputs and virtual inputs available on the system. It also shows the settings for each **Source**, which are kept across all instances used within the app (either when loading the input on the Preview window or on a Layer).



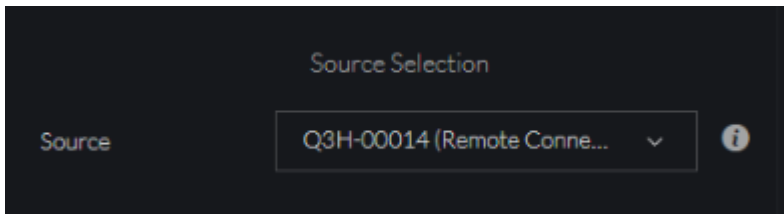
7.7.1 Source Selection

In order to change settings for a given input, first select an input from the dropdown on the left side.

The **Live Inputs** list will automatically update when plugging/unplugging a physical camera to/from a USB port. If the selected Source is unplugged, the list will show the **Select a Live Input source** placeholder.



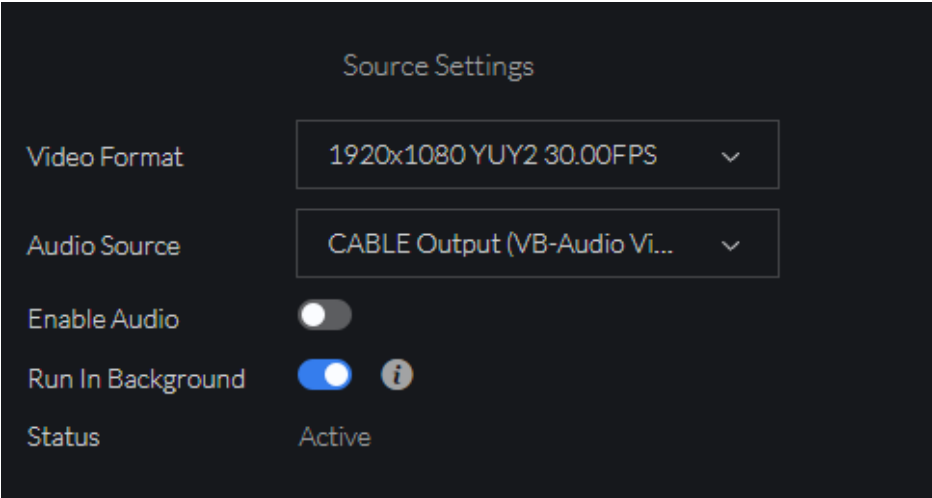
If a new NDI® source is added or removed in the local network the **NDI® Inputs** list is updated.



NDI® is a registered trademark of Vizrt NDI AB.

7.7.2 Source Settings

On the right side it is then possible to change the following settings:



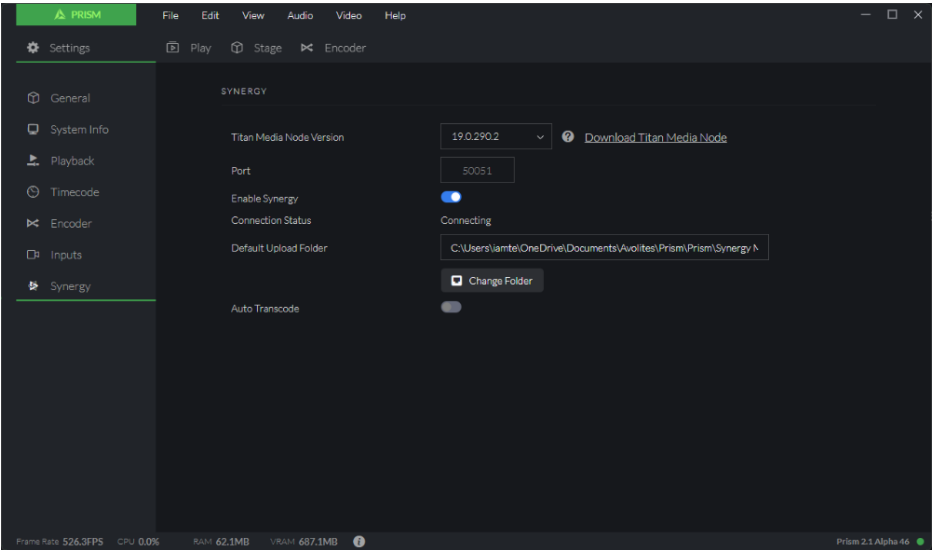
Item	Description
Video Format	List of available video formats. Each format is composed of resolution, color space and frame rate (physical inputs only).
Audio Source	List of available audio sources. The selected source will act as the audio input (physical inputs only).
Enable Audio	Enable audio input.
Run In Background	Create an instance of the specified source which will run in the background. This allows to speed-up loading times of when the input is launched on a Layer, as the input will be immediately ready.
Status	Indicates the connection status of the capture device. <i>The device will fail to connect if either the video or audio source is invalid.</i>

7.8 Synergy Settings

Prism includes **Synergy** compatibility with **Avolites Titan**, providing easier setup as well as advanced features such as previewing of **Prism** within **Titan**, using the output from **Prism** within **Titan's Pixelmapper** and allowing media transfer directly from the console to **Prism**.

Note: To control Prism 2.1 using Synergy from a Titan console the console must have its personality library updated. Please download the correct installer for your Titan software version from personalities.avolites.com.

More information on how to setup a **Synergy** connection can be found on this [guide](#).



Item	Description
Titan Media Node Version	List of available Titan Media Node. The version in use must match the Titan version. If a mismatch is identified within Titan's Synergy Settings, a different version can be selected via this dropdown.
Port	Specifies which port is used to allow Prism and Titan to communicate.
Enable Synergy	This toggle enable/disable Synergy connection between Prism and the controlling device.
Connection Status	Indicates the current status of the Synergy connection between Prism and Titan.

Item	Description
Default Upload Folder	This path is the default storage location used by all media transferred to Prism from Titan via a Synergy connection. By pressing the {Change Folder} button it is possible to update the default destination folder that will be displayed in the box.
Auto Transcode	This toggle will enable/disable the automatic conversion of any files transferred to Prism via Synergy without the need for user input.