

# Kaleidescape & Barco Cinemascope Projector Configuration Guide

Document Rev.1



## Captain Phillips

A cargo ship captain makes a courageous sacrifice to save his crew when his vessel gets hijacked by Somali pirates.

  
kaleidescape

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## Introduction

This document outlines the best way to configure a Kaleidescape Movie Player and Barco Cinemascope projector (Bragi CS, Balder CS, Loki CS). Setting both products correctly, will result in smooth transitions between the Kaleidescape user-interface and movies of differing aspect ratios. This ensures that your client always views content as per the Director's intent.

### Why is this important?

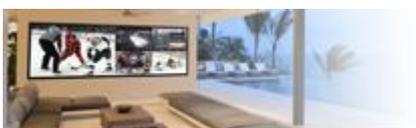
Most projectors are not capable of detecting the contents aspect ratio and automating the transition between the various different ratios available. This results in the end-user having to manually select between different aspect ratio modes, which is clumsy and can lead to errors. Additionally, because of the way that these solutions transition between aspect ratios (typically lens memory), the process is slow to respond and can take several seconds whilst the projector alters zoom, shift and focus settings. In comparison, Barco Cinemascope projectors switch between aspect ratios within a split second, as we simply activate the required number of additional pixels on the DMD device to create the desired aspect ratio.

**NOTE:** This requires changing the default settings within both the Kaleidescape Movie Player and the projector, this guide outline the required changes.

**NOTE:** Requires firmware release 1.9 or above, please see below for product specific links;

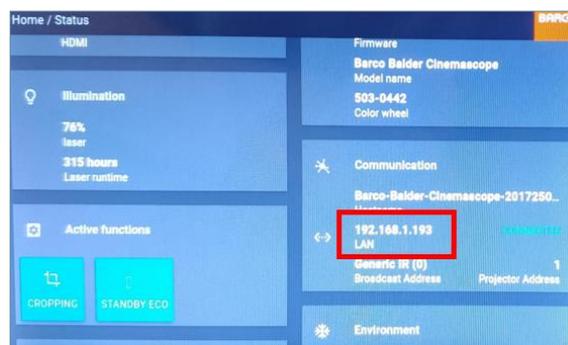
Firmware Release 1.9.34: Balder CS and Loki CS

Firmware Release 1.9.x: Bragi CS



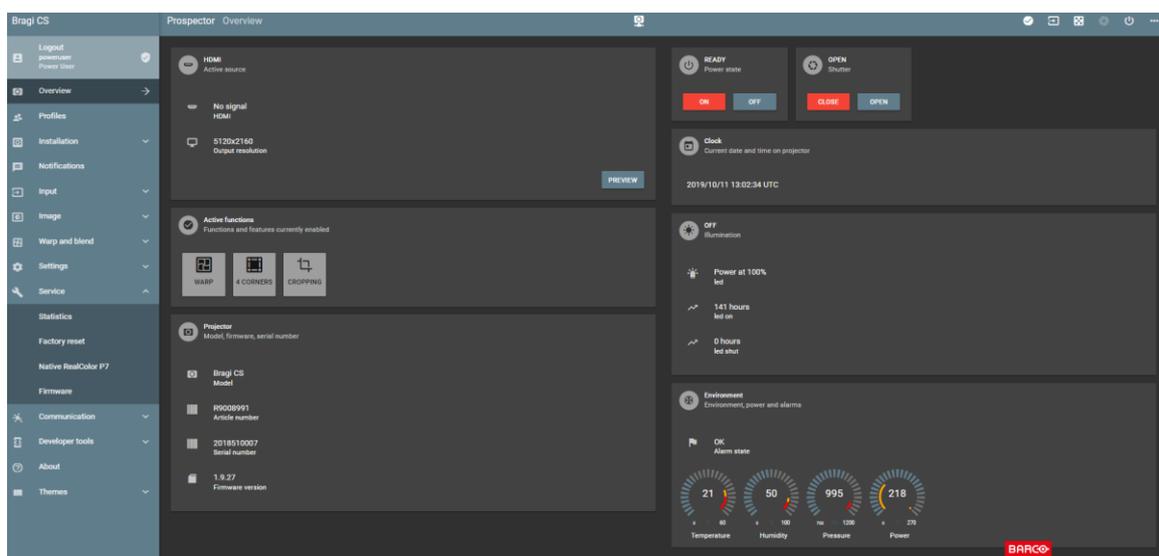
## Interfacing with the Projector (via Prospector)

- Connect the source components, network cable and power cable.
    - Note:** Make sure you connect the network cable to the LAN port on the rear of the projector and not the HDBaseT port.
  - Upon applying power to the projector, it will place itself into its ready state.
  - During this process you will hear the projector make numerous clicking noises, this is usual behaviour.
  - Make sure the projector and your device (PC, tablet etc.) are connected to the same network.
  - Via a web browser (preferably Google Chrome), enter the IP address of the projector, followed by the port number :9999. Example: 192.168.1.193:9999
- Note:** The projector's IP address can be located on the projector's LCD display under the Communication panel, (see below), you may have to scroll down the screen using the arrows keys to view it.



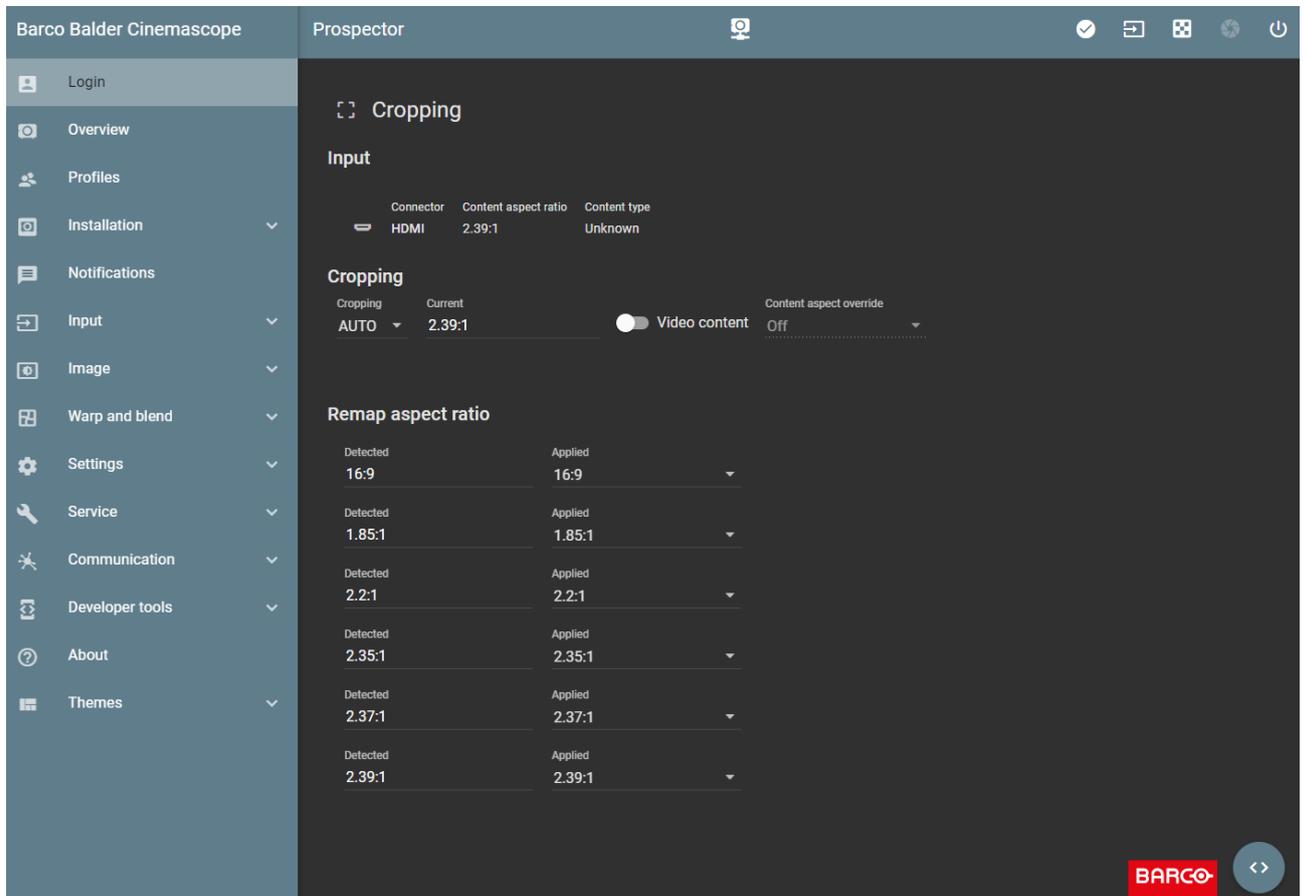
Projector LCD Display

Once successfully connected to the projector, you will see the Prospector web interface.

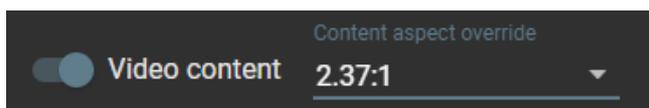


## Projector Settings

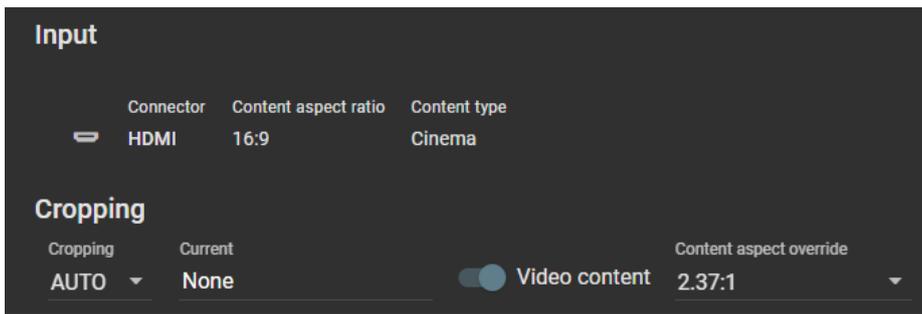
- Navigate to the Image >>> Cropping Menu.



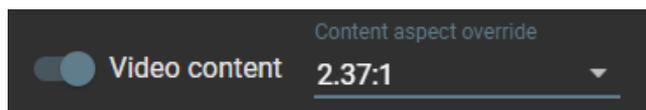
- Within this menu we can define how the projector interacts with the content that it is displaying; use the Cropping drop down menu to select different modes (OFF / MANUAL / AUTO / 1.78:1 >>> 2.39:1).
- We recommend that you select AUTO mode, as this allows the projector to determine the contents aspect ratio and apply the required aspect ratio per your mapping preferences (see our Integration Guide for more information on this).
- The next steps are critical for Kaleidescape users if the user-interface is to display correctly;
- To the right of the Cropping Mode drop-down menu, is a toggle switch labeled “Video Content”. This should be enabled, allowing the projector to detect metadata output from the Kaleidescape Movie Player, indicating which type of content it’s outputting.



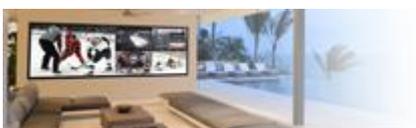
The projector has three content types, “Cinema”, “Graphics” and “Unknown”



- Cinema
  - When the projector detects the content type as “Cinema”, we know that the source is a Kaleidescape Movie Player, and that it’s outputting movie content. Auto Cropping is therefore active per your defined settings.
- Graphics
  - When the projector detects the content type as “Graphics”, we know that the source is a Kaleidescape Movie Player, and that it’s outputting its user-interface. Auto Cropping is de-activated, and the Content Aspect Override selection is used

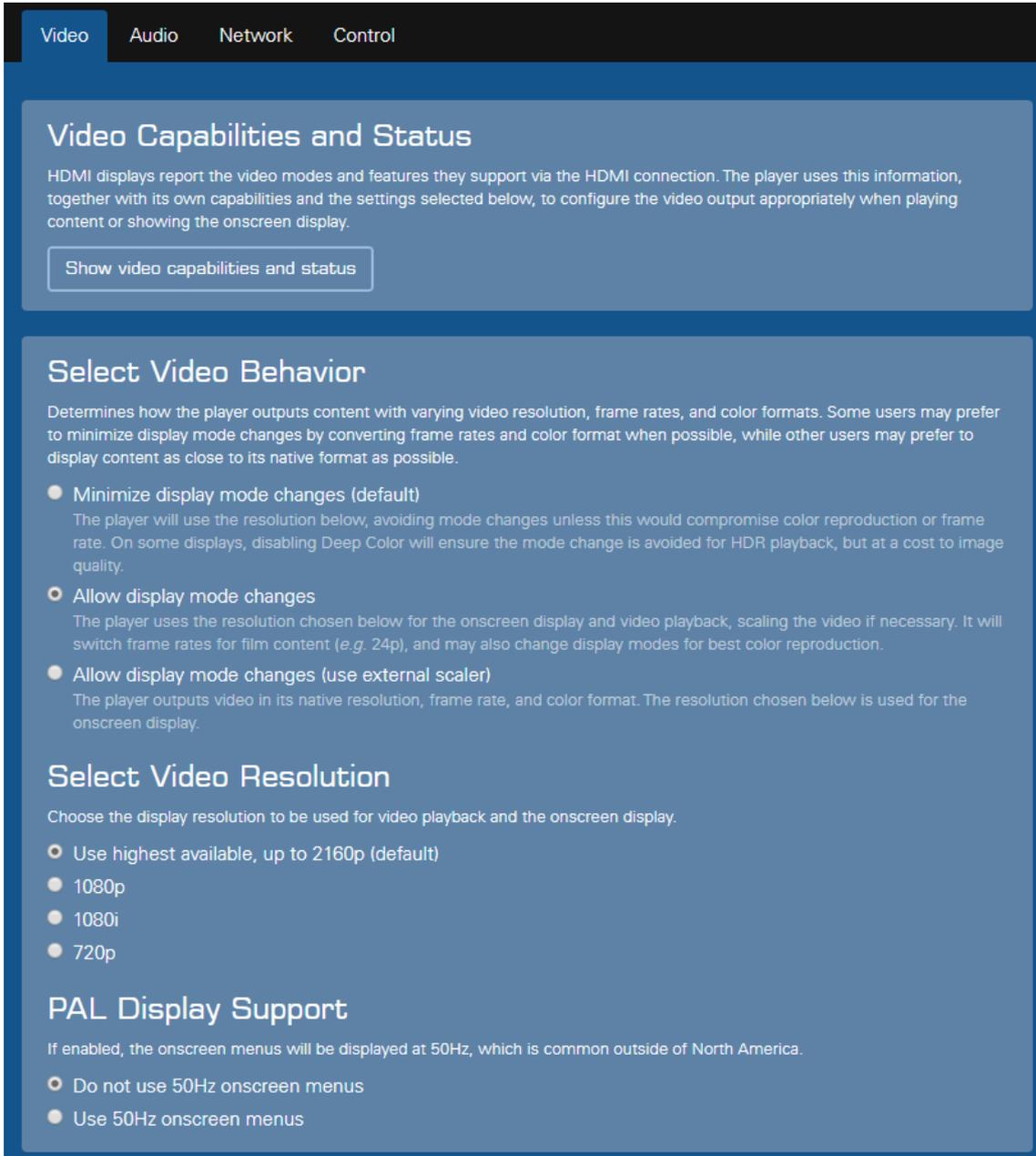


- If the content type is “Graphics”, you need to set how this is displayed (16:9 or 2.37:1) by the projector. This will depend on how you have setup your Kaleidescape Movie Player (see chapter called “Select Screen Aspect Ratio”), however, as you are using a Cinemascope projector, we would assume you wish to utilize the cinemascope formatted user-interface for the optimum user experience.
- Unknown
  - When the projector detects the content type as “Unknown”, we know that the source a none Kaleidescape device and therefore Auto Cropping is active per your defined settings.



## Kaleidescape Movie Player Settings

- Connect to the Kaleidescape Movie Player (IP Address/components) and select the settings menu and the video tab.
- The following images show recommended settings for a Kaleidescape Strato Player when connected to a Barco Residential projector.



The screenshot shows the Kaleidescape Movie Player settings interface. At the top, there are four tabs: Video (selected), Audio, Network, and Control. Below the tabs, the 'Video' section is active, displaying the following content:

### Video Capabilities and Status

HDMI displays report the video modes and features they support via the HDMI connection. The player uses this information, together with its own capabilities and the settings selected below, to configure the video output appropriately when playing content or showing the onscreen display.

[Show video capabilities and status](#)

### Select Video Behavior

Determines how the player outputs content with varying video resolution, frame rates, and color formats. Some users may prefer to minimize display mode changes by converting frame rates and color format when possible, while other users may prefer to display content as close to its native format as possible.

- Minimize display mode changes (default)**  
The player will use the resolution below, avoiding mode changes unless this would compromise color reproduction or frame rate. On some displays, disabling Deep Color will ensure the mode change is avoided for HDR playback, but at a cost to image quality.
- Allow display mode changes**  
The player uses the resolution chosen below for the onscreen display and video playback, scaling the video if necessary. It will switch frame rates for film content (e.g. 24p), and may also change display modes for best color reproduction.
- Allow display mode changes (use external scaler)**  
The player outputs video in its native resolution, frame rate, and color format. The resolution chosen below is used for the onscreen display.

### Select Video Resolution

Choose the display resolution to be used for video playback and the onscreen display.

- Use highest available, up to 2160p (default)**
- 1080p
- 1080i
- 720p

### PAL Display Support

If enabled, the onscreen menus will be displayed at 50Hz, which is common outside of North America.

- Do not use 50Hz onscreen menus**
- Use 50Hz onscreen menus**



▼ Hide Advanced Video Settings

## Deep Color Support

The player detects the display's Deep Color capability automatically. Use this setting only in cases where a display or other device in the HDMI chain is incorrectly reporting its Deep Color capability.

- Detect Deep Color support automatically (default)
- Display supports Deep Color
- Disable Deep Color

## 4K Ultra HD Support

The player detects the display's 4K Ultra HD capability and selects the best possible output mode automatically. Use this setting only in cases where cabling quality, or difficulties with the display or other HDMI devices is impacting the reliability of the connection.

Note: If the display supports HDMI 2.0 but an intermediate component like an audio receiver does not, you should connect the HDMI 1 output directly to the compatible display and connect the audio receiver to the HDMI 2 audio-only output.

- Automatic (default)
 

The player automatically detects the capabilities of the display, and uses the best possible mode supported by the display and all intermediate HDMI devices.
- Limit output to 13.5Gbps
 

The display, an intermediate device, or the cabling is limited to 13.5Gbps/450MHz operation or has difficulty sustaining a stable connection at higher speeds. Selecting this option will limit chroma resolution to 4:2:0 in 4K Ultra HD 50/60Hz modes. All other HDMI features, including deep color, will be available if supported by the display.
- Limit output to 10.2Gbps
 

The display, an intermediate device, or the cabling is limited to 10.2Gbps/340MHz operation or has difficulty sustaining a stable connection at higher speeds. Selecting this option will limit chroma resolution to 4:2:0 and will disable deep color 4K Ultra HD 50/60Hz modes. 4K Ultra HD 50/60fps content will be downscaled to HD. As well, playback of all 4K Ultra HD content may experience mode changes even if the player is configured to "Minimize display mode changes".
- Use only HDMI 1.4 modes
 

The display or an intermediate device is not HDMI 2.0 compatible or has difficulty operating in HDMI 2.0 modes. Selecting this option will disable 50/60Hz output in 4K Ultra HD resolution. 4K Ultra HD 50/60fps content will be downscaled to HD. As well, playback of all content may experience mode changes even if the player is configured to "Minimize display mode changes".
- Disable 4K Ultra HD
 

The display or one of the intermediate devices does not support 2160p or is not capable of 10.2Gbps/340MHz operation. Selecting this option disables 2160p output from the player. 4K Ultra HD content will be downscaled to HD.

## HDMI Content Type Metadata

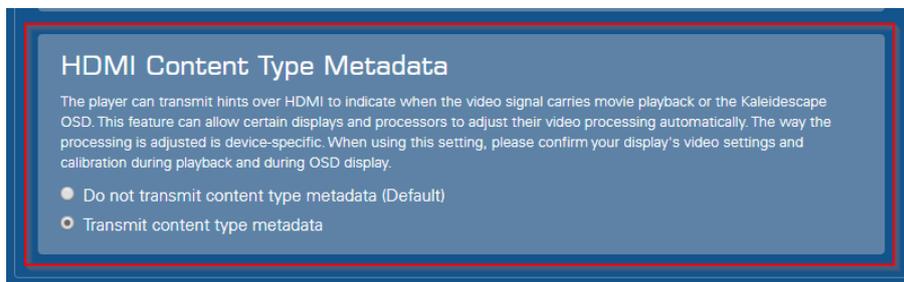
The player can transmit hints over HDMI to indicate when the video signal carries movie playback or the Kaleidescape OSD. This feature can allow certain displays and processors to adjust their video processing automatically. The way the processing is adjusted is device-specific. When using this setting, please confirm your display's video settings and calibration during playback and during OSD display.

- Do not transmit content type metadata (Default)
- Transmit content type metadata



- The highlighted setting “HDMI Content Type Metadata” on the previous page and below, if activated, is what tells the display device whether the Movie Player is outputting content or its user-interface.

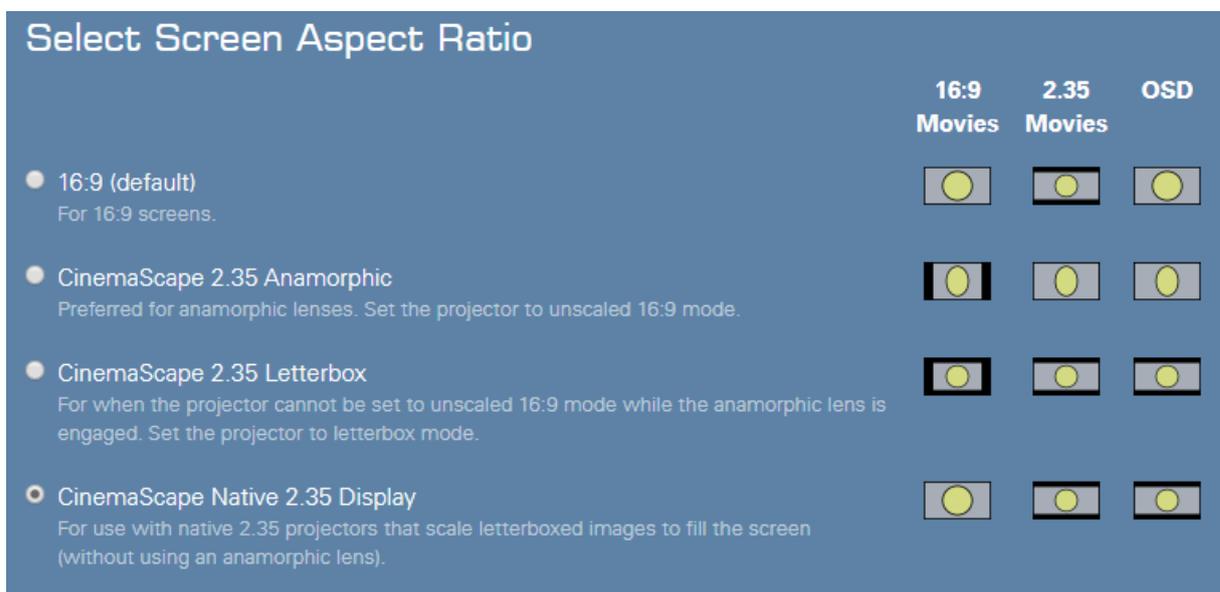
**NOTE:** By default this settings is turned off.



## Select Screen Aspect Ratio

Kaleidescape has also optimized its user-interface for Cinemascope projectors. Settings for this can also be found under video settings within the Kaleidescape menu;

- Within the menu called “Select Screen Aspect Ratio” select CinemaScape Native 2.35:1 Display as highlighted below. This will set the user-interface to 2.35:1 displaying the full width of your client’s screen, as opposed to the centre 16:9 section (default setting).
- If you prefer the Kaleidescape menu in 16:9 leave it as default and set “Content aspect override” in the projector menu to 16:9 as well.



Your Barco Cinemascope projector and Kaleidescape Movie Player should now be set up correctly allowing;

- Movie content to be displayed per your Auto Cropping remapping preferences
- Kaleidescape’s user-interface to be displayed in cinemascope mode

