



Content Guidelines and Specifications for Cisco Vision Dynamic Signage Director

First Published: 2017-11-21

Revised Date: 2018-02-08

Before you import content, be sure that your content is in the correct format, is the appropriate size, and has the correct dimensions for where it will be displayed. If the content is not the correct size for the Dynamic Signage Director region into which it is placed, then the image will either be cropped, or there will be blank space in the region.

Content Dimensions

Content dimensions for images depend on whether the image will play in full screen mode or in one region of a multi-region screen template.

- If the content is shown in full screen mode, then the image should match the resolution of the graphics screen:

Full Screen HD/SD Mode: 1920x1080 (maximum supported by all DMPs)

- If the content is shown in a region of a multi-region screen template, then the image should match the dimensions of that specific region.

Note: For the CV-UHD and SV-4K, 4K video can be displayed in full ultra HD resolution (3840x2160) when using any of the Dynamic Signage Director templates using the primary video region. For additional information, refer to "Restrictions for Video Content with 4K Resolution on the SV-4K Media Player " on page 23.

Content Orientation

The default orientation for all content in Cisco Vision Dynamic Signage Director is landscape mode.

Portrait Mode Auto-Rotation

Note: The term "auto-rotation" does *not* mean that the content will rotate automatically with physical rotation of the TV display (such as happens with Apple iPhone screens). It means that the *DMP* rotates the content for display in 1080x1920 orientation. From a TV's usual horizontal mounting position, the TV should be rotated 90 degrees (clockwise) for proper display of portrait mode content.

Portrait mode auto-rotation allows DMPs to automatically rotate all content for proper orientation on vertically-positioned displays, according to the following guidelines:

- Supports all content sources for a single TV display.
- For multicast streaming video only, supports scaling of content across multiple display screens.
- Is enabled using the "dmp.Portrait" display parameter when configuring TV display specifications in the Control Panel.

Content Scaling

Scaling refers to support of two things:

- Stretching of the content.
- Showing only a portion of the content per display in a multi-screen video wall.

Note: Content scaling works with multicast video and local video. Content scaling is not supported for static graphics, widgets, or external URLs.

Guidelines for Video Content

Consider the following guidelines for deployment of video content in Cisco Vision Dynamic Signage Director:

- Video files can range in size. 4 GB is the maximum file size.
- Be sure that your video content meets the requirements described in [Supported Video and Audio Formats, page 29](#).
- Be sure to test the devices that you plan to connect to the SV-4K or CV-UHD HDMI-In port to stream content for support of HDCP. Most Mac OS and Windows laptops should work for HDMI-In video encoding for non-copy-protected content. It is up to the device manufacturer and OS whether or not this is supported.
- While using multicast or locally-stored videos for both video regions is supported, it is recommend to use a combination of multicast and locally-stored videos for the video regions (or local video for both video regions).
- For local video playback on the media players, Constant Bit Rate (CBR) is recommended for best performance. Variable Bit Rate (VBR) will also work but synchronized video playback could be compromised.
- Create video content that is the same size as the video region in which it will be rendered. This avoids any unnecessary video scaling.
- The audio track for any local video content should be sampled at 48 kHz.
- All local video content must include an audio PID (even if silent, without an audio source present).
- Use progressive video modes instead of interlaced to achieve optimal video display.

Additional Guidelines for 4K Video Content

- [Best Practices for 4K Video Content, page 50](#)
- [Restrictions for 4K Video Content, page 50](#)

Best Practices for 4K Video Content

Before preparing video content with 4K resolution for the SV-4K media player, consider the following best practice:

- When using any templates with native 4K video, it is best to design all content/regions for HD 1920x1080. The image content that is displayed with the 4K video will resize proportionally to a 3840x2160 canvas size automatically.

4K video is displayed in full ultra HD resolution (3840x2160) when using any of the Cisco Vision Dynamic Signage Director templates using the primary video region.

Restrictions for 4K Video Content

Before preparing video content with 4K resolution, consider the following restrictions:

- Video content with 4K resolution is only supported by the SV-4K and CV-UHD DMPs.

Guidelines for Video Content

- H.264 video encoding is not supported. Be sure that your content tools support H.265 encoding.
- Videos with 4K resolution are not supported for HDMI-In streaming.
- Display of dual 4K video regions is not supported.
- The 4K video region should be played in the primary video region only. A secondary video region can support up to HD (1920x1080) video resolution.
- No luma key can be applied to 4K video content. Luma keying is only supported with 4K for dual video when an HD video in the secondary region uses a luma key over a 4K video in the primary region.
- The Screen Template editor in Cisco Vision Dynamic Signage Director presents all region sizes based on an HD 1920x1080 canvas size-do not configure templates based on the ultra HD size of 3840x2160 when using a 4K display.
- If you are using a 4K display, you must configure a fixed resolution value of 3840x2160x60p in the `sv4k.videoMode` serial command in the TV display specification.

For more information about how to specify the TV display resolution, see the “Configuring Resolution Under Control Panel Display Specifications” in the *Cisco Vision Director Operations Guide*.

