



Content Guidelines and Specifications for Cisco Vision Dynamic Signage Director

Before you import content, verify:

- Content is in the correct format
- Content is the appropriate size
- Content has the correct dimensions for where it will be displayed.

If the content is not the correct size for the Cisco Vision Director region into which it is placed, the image will 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-UHD2, CV-UHD and SV-4K, UHD 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 UHD Video Content, page 67](#).

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 mobile device 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.

Content Orientation

- 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 **Configuration** interface.

Note: When using video in portrait mode, do not scale the video beyond the full HD resolution. Ideally, the aspect ratio of the video relative to the screen region should match, for non-UHD video.

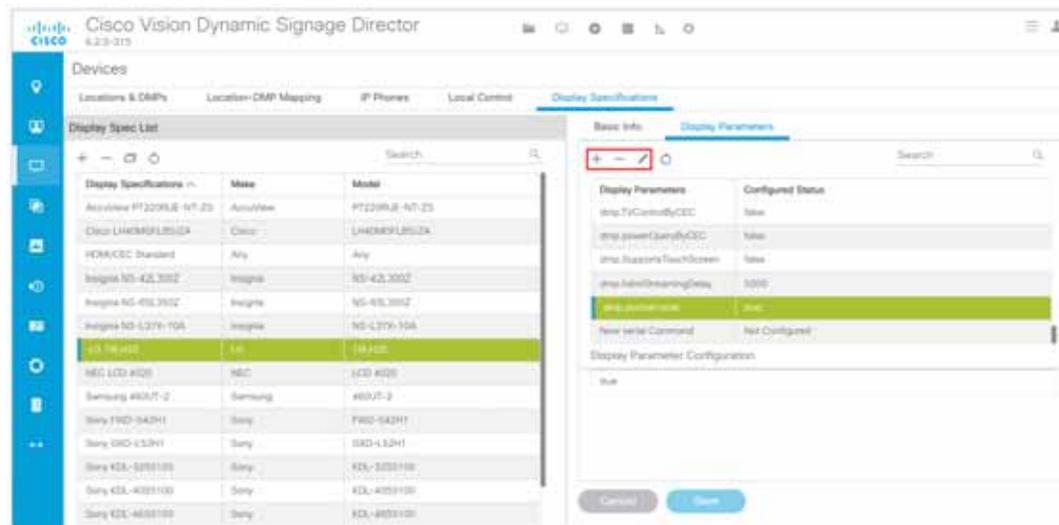
Flexible DMP Content Rotation

Release 6.0 introduced portrait-view content display. We enhanced that feature by allowing you to rotate the content 90 degrees and -90 degrees (or +270 degrees). This works for all content like videos, static images, widgets, local and multicast video, and external URLs. For situations where the display monitor has already been installed in a portrait position and to show your content the way you want, rotate the content.

To rotate content:

1. Go to: **Configuration > Devices > Display Specifications**.
2. Choose the specific display from the list on the left panel and click the **Display Parameters** tab in the right panel (Figure 1 on page 60).

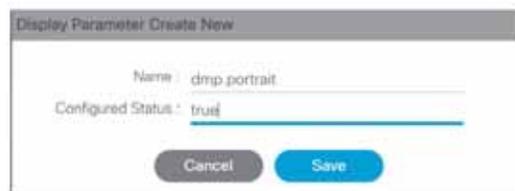
Figure 1 Enabling dmp.portrait Display Parameter



3. **Add** or **Edit** a Display Parameter called **dmp.portrait** or **dmp.portrait.clockwise** and set it to “true” to achieve the proper rotation value you need (see Figure 2 on page 60).

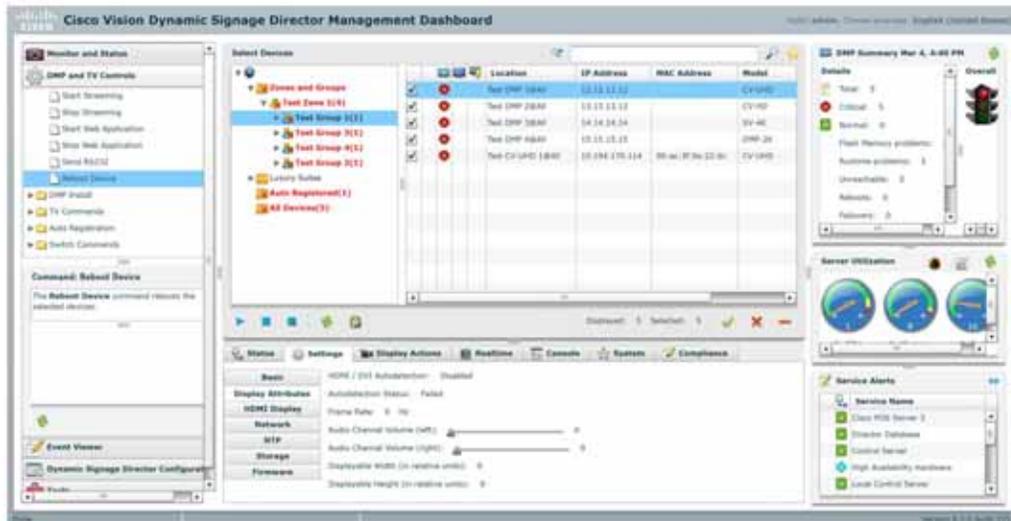
Note: By default, if you use dmp.portrait and set “true” to your content, it rotates the content 90 degree. If you set dmp.portrait.clockwise to “true,” it will rotate the content 270 degrees (or -90 degrees).

Figure 2 Adding dmp.portrait Display Parameter



4. Reboot the DMPs after setting this parameter. Go to: **More > Management Dashboard > DMP and TV Controls > DMP Commands > Reboot Device** (Figure 3 on page 61).

Figure 3 Reboot DMP



Note: When using video in portrait mode, do not scale the video beyond the full HD resolution. Ideally, the aspect ratio of the video relative to the screen region should match, for non-UHD video.

Figure 4 on page 61 is a figure displaying rotated content 90 and -90 degrees. Use clockwise and counter clockwise. You can only use 90 and -90.

Figure 4 90 Degrees and 270 Degrees, Content Rotation
 Clockwise Counter clockwise

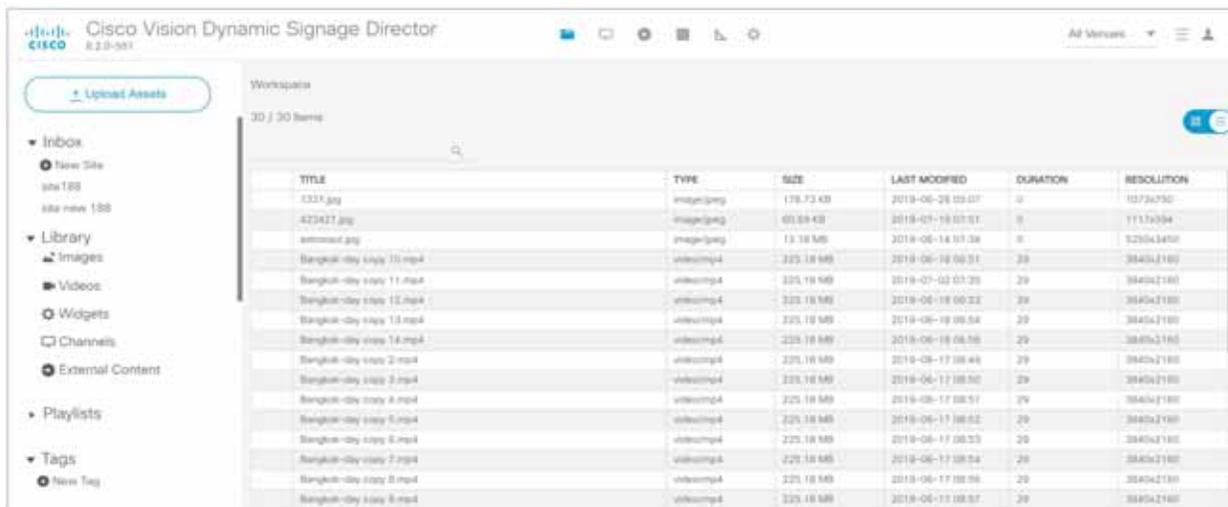


Automated Content Import to Library Inbox

New to Release 6.2 is running an automated import of content from a defined source. The source may be a defined SFTP location. There can be multiple SFTP locations defined in the system. This feature can be registered as a task and the task configured to run every day.

Note: A file that is already imported to Cisco Vision Director using the SFTP feature cannot be reimported with the same content name.

Figure 5 on page 62 shows how to access it in **Library**. Add the designated sites here.

Figure 5 Automated Content Import


The screenshot shows the Cisco Vision Dynamic Signage Director interface. On the left is a navigation menu with options like 'Inbox', 'Library', 'Images', 'Videos', 'Widgets', 'Channels', 'External Content', 'Playlists', and 'Tags'. The main area displays a 'Workspace' with 30 / 30 items. A table lists the imported content with the following columns: TITLE, TYPE, SIZE, LAST MODIFIED, DURATION, and RESOLUTION.

TITLE	TYPE	SIZE	LAST MODIFIED	DURATION	RESOLUTION
333.jpg	image/jpeg	178.73 KB	2018-06-26 03:07	0	1073x750
42347.jpg	image/jpeg	60.58 KB	2018-07-19 03:51	0	1115x934
amazon.jpg	image/jpeg	13.18 MB	2018-06-14 07:26	0	525x345
Bangkok-day copy 10.mp4	video/mp4	225.18 MB	2018-06-19 00:51	29	3840x2160
Bangkok-day copy 11.mp4	video/mp4	225.18 MB	2018-07-02 03:25	29	3840x2160
Bangkok-day copy 12.mp4	video/mp4	225.18 MB	2018-06-19 00:22	29	3840x2160
Bangkok-day copy 13.mp4	video/mp4	225.18 MB	2018-06-19 00:54	29	3840x2160
Bangkok-day copy 14.mp4	video/mp4	225.18 MB	2018-06-19 06:58	29	3840x2160
Bangkok-day copy 2.mp4	video/mp4	225.18 MB	2018-06-17 08:49	29	3840x2160
Bangkok-day copy 3.mp4	video/mp4	225.18 MB	2018-06-17 08:50	29	3840x2160
Bangkok-day copy 4.mp4	video/mp4	225.18 MB	2018-06-17 08:51	29	3840x2160
Bangkok-day copy 5.mp4	video/mp4	225.18 MB	2018-06-17 08:52	29	3840x2160
Bangkok-day copy 6.mp4	video/mp4	225.18 MB	2018-06-17 08:53	29	3840x2160
Bangkok-day copy 7.mp4	video/mp4	225.18 MB	2018-06-17 08:54	29	3840x2160
Bangkok-day copy 8.mp4	video/mp4	225.18 MB	2018-06-17 08:55	29	3840x2160
Bangkok-day copy 9.mp4	video/mp4	225.18 MB	2018-06-17 08:56	29	3840x2160
Bangkok-day copy 9.mp4	video/mp4	225.18 MB	2018-06-17 08:57	29	3840x2160

To create a designated site to fetch files:

1. Click **New Site**. The Create Site box appears (Figure 6 on page 62).

Figure 6 Create New Site to Get Content From


The 'Create Site' dialog box contains the following fields and options:

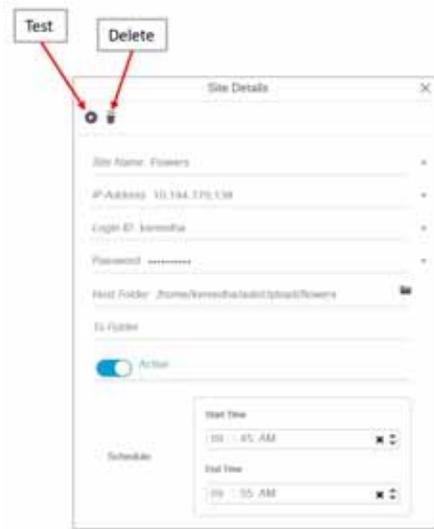
- Site Name ***: Enter site identifier
- IP Address ***: Enter host site address
- Login ID ***: Enter login ID
- Password ***: [Masked]
- Host Folder**: Enter FTP host folder path
- To Folder**: Enter workspace folder path
- Active**:
- Schedule**:
 - Start Time**: 02 : 30 AM
 - End Time**: 03 : 30 AM

Buttons: Cancel, Save

2. Fill in the required fields.
3. Choose a **Host Folder** and a designation folder (**To Folder**) where the content will reside in Cisco Vision Director. If you don't choose a destination folder, the content goes to the Inbox list of sites.
4. Schedule a **Start** and **End** time to fetch files.
5. Click **Save**.

After you create a new site, you can **Test** or **Delete** the source sites (Figure 7 on page 63).

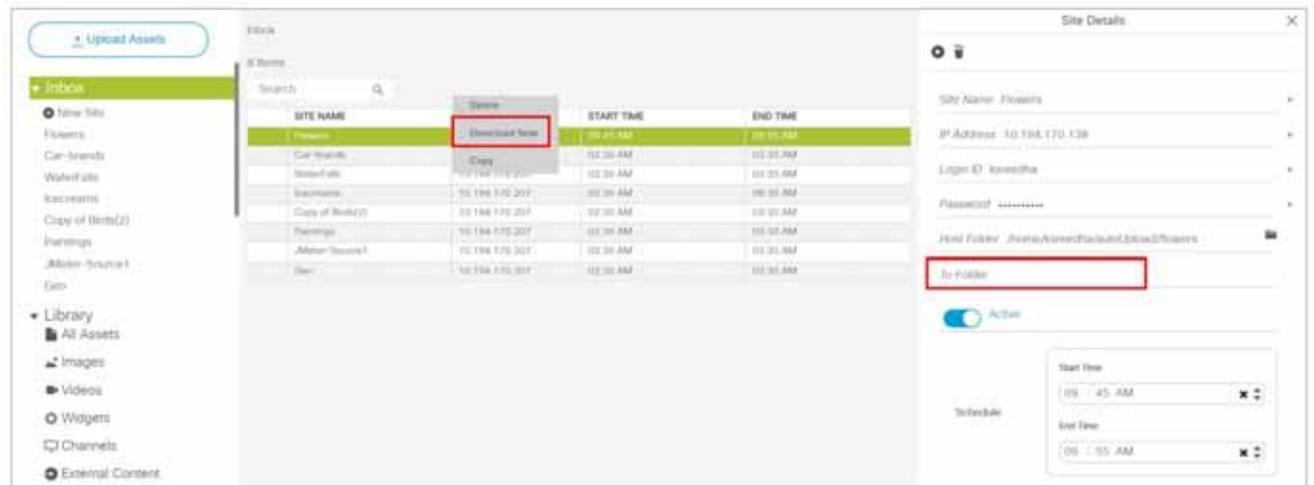
Figure 7 Test or Delete a Content Source



To download, copy, or delete the content:

1. Select the content and right click it. An Action box appears (Figure 8 on page 63).

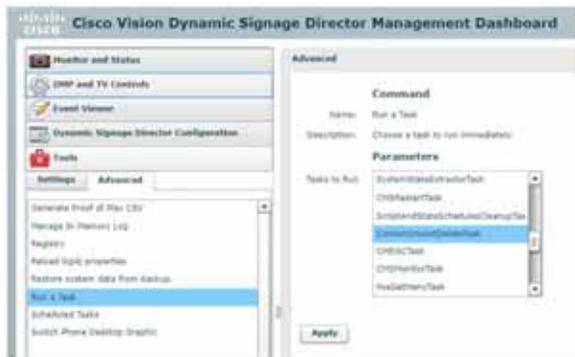
Figure 8 Action Box Operations for Auto-Content Import



If you choose **Download Now**, you see “Content Import successfully triggered now.” This action executes the content import On Demand. The content appears in the site folder. If you didn’t choose a destination folder (in red box above), all the imported files are visible under the sites in the Inbox list.

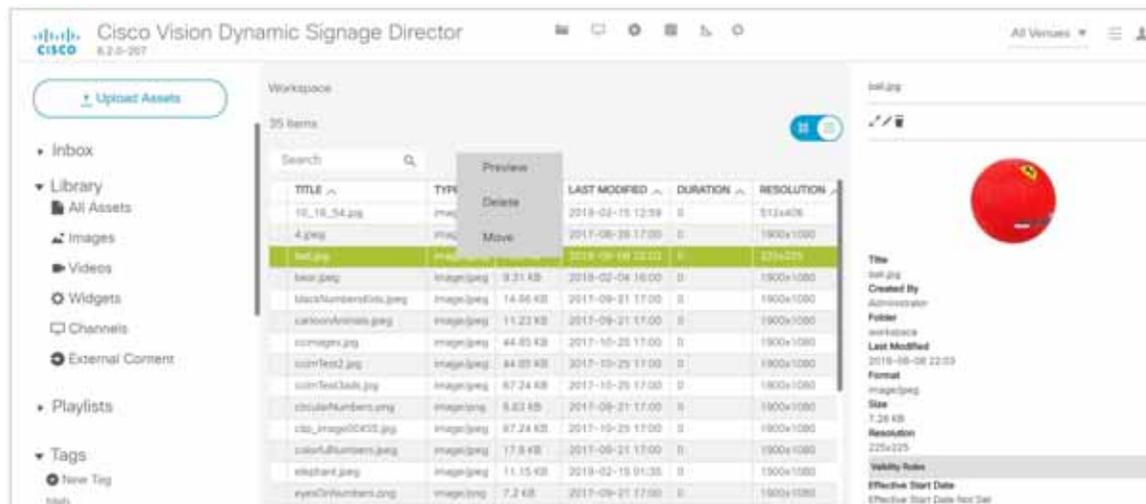
IMPORTANT NOTES:

- If you did not specify a Folder in the import action, you **must** move all the files to the correct Workspace folder or subfolders you’ve created. Otherwise the content is not available to use in a playlist.
- If you delete a site, the site is not visible in the list. However, the site details are not removed until the scheduled task runs. The default is 8:00 am. If you need to create a site with the same name before the scheduled task runs, Go to **Tools > Management Dashboard > Tools drawer > Advanced tab > Run a Task > ContentImportDelete**. Click **Apply** (Figure 9 on page 64). This allows you to add the same site details the same day.

Figure 9 Run Task ContentImportDelete in Management Dashboard

To manage your content source assets once they are placed in a folder:

1. Select one from the **Library Inbox** and right click. The action box appears (Figure 10 on page 64).

Figure 10 Inbox Content Source Assets

Content source files can be batch uploaded to **Library**, as long as all the content files go into the same folder you create.

To set the configuration properties for the content site:

1. Go to **More > Management Dashboard > Dynamic Signage Director Configuration > System Configuration > Dynamic Signage Director Settings > Content Source Settings** (Figure 11 on page 65).
2. Type in the specific values you want.
3. Click the **Save** icon.

Figure 11 Set Values for Content Source Settings

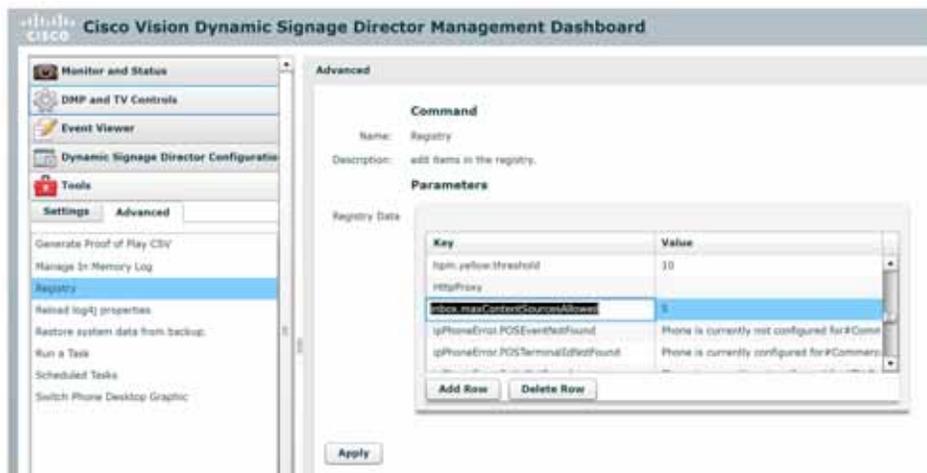


Use **Management Dashboard** to configure global settings for automated content import for the configuration properties shown above. Use the **Asset Library** (Figure 10 on page 64) window to configure and setup the content sources.

To set the registry value for automated content:

1. Go to **More > Management Dashboard > Tools** drawer > **Advanced** tab > **Registry**.
2. Scroll to **inbox.maxContentSourcesAllowed**. The default value is 5 (Figure 12 on page 65).

Figure 12 Automated Content Registry Value



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.

Guidelines for Video Content

Note: Content scaling works with multicast video and local video, as well as for static graphics, widgets, and external URLs.

Note: Scale down large content and keep the correct aspect ratio. If your image or widget resolution is smaller than the region, the content resolution will not scale up.

No need to configure. This is just an added feature/ability of Cisco Vision Director. For video walls, videos always scale to the region. However, if your region is out of spec, it may not display. For non-video, content will be scaled down (scale-to-fit for images and widgets, maintaining aspect ratio; scale-to-fill for external URL). This feature will scale non-video content down so it will not spill over beyond the region size.

Limitation: If you have content that is too small for your region, you can scale up—for video only.

Best practice: Match content resolutions with region resolutions.

Guidelines for Video Content

To deploy video content in Cisco Vision Dynamic Signage Director, use the following guidelines:

- Video files 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 37](#).
- Test the devices that you plan to connect to the SV-4K, CV-UHD, or CV-UHD2 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. The device manufacturer and OS determine whether or not this is supported.
- Using multicast or locally-stored videos for both video regions is supported, we recommend using a combination of multicast and locally-stored videos for the video regions (or local video for both video regions).
- For best performance of local video playback on the media players, use Constant Bit Rate (CBR). 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.
- For frameless external HTML browser content, the videos will likely render at the lowest layer. We do not recommend rendering video content on the external HTML.

Additional Guidelines for UHD Video Content

- [Best Practices for UHD Video Content, page 66](#)
- [Restrictions for UHD Video Content, page 67](#)

Best Practices for UHD Video Content

Before preparing video content with UHD resolution for the SV-4K, CV-UHD, or CV-UHD2 digital media player, consider the following best practice:

- When using any templates with native UHD video, it is best to design all content/regions for HD 1920 x 1080. The image content that is displayed with the UHD video will resize proportionally to a 3840 x 2160 canvas size automatically.

