Working with Playlists in Cisco Vision Director

User Role: Administrator / Content Manager

This module provides information about how to create and modify groups of content items for sequential display using playlists in Cisco Vision Director.

Information About Playlists

A **playlist** is a series of content items (static images, video, widgets, external URLs) that are grouped together to display in sequential order (one after the other) for a set duration and repeat. The playlist appears in a given area of the screen called a **region**.

Each playlist runs independently of other playlists, and multiple playlists can be run in any given event script in separate regions.

Playlists are defined by the type of content that they contain—either static graphics only (Non Video), or video/other content types (Video or Mixed Media). A playlist set up as "Video or Mixed Media" can contain both video and static graphics, as well as other content types.

One of the most common uses of a playlist is in a screen template region where a series of advertisements cycle based upon a preset rotation. Playlists also can include tickers and full screen messages, among a number of other types of content.

Figure 1 on page 143 shows an example of a playlist that contains five static images that will each display for a set duration in Region 2 of the screen template.

Figure 1   Playlist Example of Static Images

The playlists to be run as part of an event script must be staged, or pre-loaded, to the Cisco DMPs prior to the event from the **Library** screen.

Playlist View

Figure 2 on page 144 shows the Content screen playlist view and the options available there.

Figure 2   Playlist View Navigation

New in this release are sizing bars. Put your cursor near the top of the area you want to change. When the cursor changes to the crossbar, drag whichever area you want, to improve your visibility.

How to Set Up Playlists

This section includes the following topics:

Guidelines for Creating Playlists

When creating playlists, consider the following guidelines:

- You cannot have playlists with the same name.

- Each region can have at most one playlist.

- For Proof of Play, you can have more than one region with an ad playlist.

- In all releases of Cisco Vision Director, graphic playlists can only play static graphics and certain .swf files*. Prior to Release 3.1, only video content could be in a video playlist. In Release 3.1 and later, Cisco Vision Director can support static graphics and video in mixed media playlists.

IMPORTANT: The Cisco digital media players do not support Flash content. For additional information, refer to allowable Static Graphic Formats.

■ Once a playlist displays the last content item in the list, it will loop back to the beginning of the playlist.

■ The recommended ad rotation time is 30 seconds. 15 seconds is the minimum supported time for all content. As a best practice, we recommend that you never use less than 15 seconds per playlist content items.

Note: All playlists from all zones/groups for a given event must be loaded on every media player prior to the event.

Each playlist can have its own ad rotation time independent of other playlists.

Content in the playlist is displayed in the order in which it is added unless you re-order your content.

Note: As a series of content items transition in a playlist (such as advertisements in Region 2 of a standard 3-region L-wrap template), there will be some variance in the appearance of each content item as the media player displays where that content is presented. Each content item will generally appear on all corresponding media player displays within about one second of each playlist item transition. However, the amount of time that it takes for all displays in your venue to show the same content item within a playlist might exceed a one-second duration based on the following venue conditions: Network infrastructure, number of regions on the display, number of content items in the playlist, and the playlist duration.

Table 1 on page 145 provides some guidelines for general playlist support in Cisco Vision Director.

Note: While these limits have been tested with basic Cisco Vision Director operation, the combination of maximum values and complexity of your system and content can potentially impact the actual limit. Therefore, be sure to test your playlist content for expected behavior before using in production.

Table 1   Playlist Guidelines and Limitations

Playlist Guideline	Limit
Number of playlists (any type) in the Cisco Vision Director content database.	1,000
Number of playlists per group.	100
Number of items per playlist.	1,200
Number of items of content (any type) used in entire SVD event. [1]	1,200
Number of characters in a playlist name (including spaces).	22

1. The number of content items that can be replaced in a playlist depends on the total number of content items, playlists, and the composition of the playlists in Cisco Vision Director. Typically a playlist containing 243–273 content items can be saved. Saving playlists larger than that will fail and content replacement will not work.

Consider the following restrictions and expected behavior when configuring playlists:

■ Single video loop—You can configure a playlist to loop continuously when you have a playlist with a single video content item set for a duration of zero, with the playlist duration also set to zero.

■ Single non-video loop—You can configure a playlist to loop continuously when you have a playlist with a **single** non-video content item by setting the item duration to -1, and setting the playlist duration to a number greater than or equal to zero.

■ All playlists will loop their content (for example, once the last item plays, the playlist restarts with the first item) **unless** a duration of zero is configured on the first playlist item.

- To run a playlist one time, you can specify a duration of zero for the last item in the playlist. There is different behavior if the last item is a non-video item versus a video. If the last item has zero duration, and once the rest of the playlist items run, then if the last item is a non-video item, it continuously plays for the duration of the state. If the last item is a video, the video plays one time followed by a black screen for the duration of the state.

- If a change is made to a playlist and the playlist is currently being displayed, it is possible that items in the playlist that are past an item in the playlist with a duration of zero, could get displayed and the playlist continues until the item with zero duration is reached again.

Prerequisites for Playlist Creation

Before you create playlists, be sure that the following conditions are met:

- You are familiar with the playlist content types to specify the appropriate playlist types (Non Video, Video or Mixed Media).

- The content for the playlist is in the Library.

- You have a naming convention to ease identification and management of your playlists.
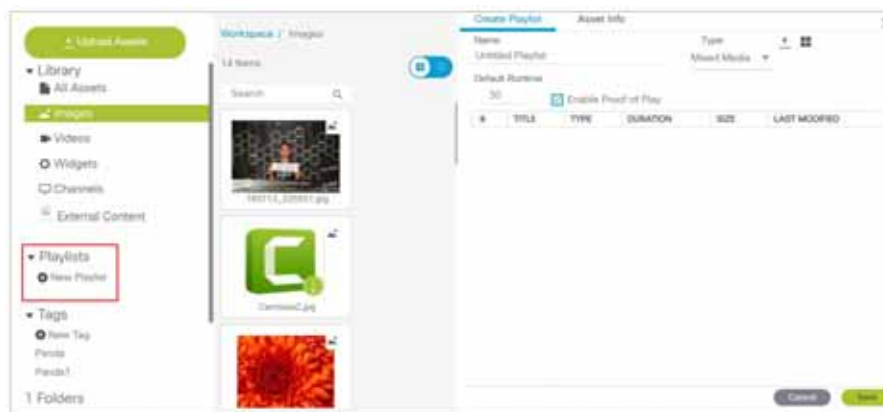
Creating a Playlist

User Role: Administrator / Content Manager

IMPORTANT: For video walls, the playlist must have the same number of items, and the same duration for each content item. Each list item must be of the same type. For more information, see Prerequisites for Video Walls, page 168.

To create a playlist:

1. From the **Main Menu (Library)** click **Playlist > New Playlist**. The Create Playlist box appears on the right Figure 3 on page 146.

Figure 3   Create New Playlist Box
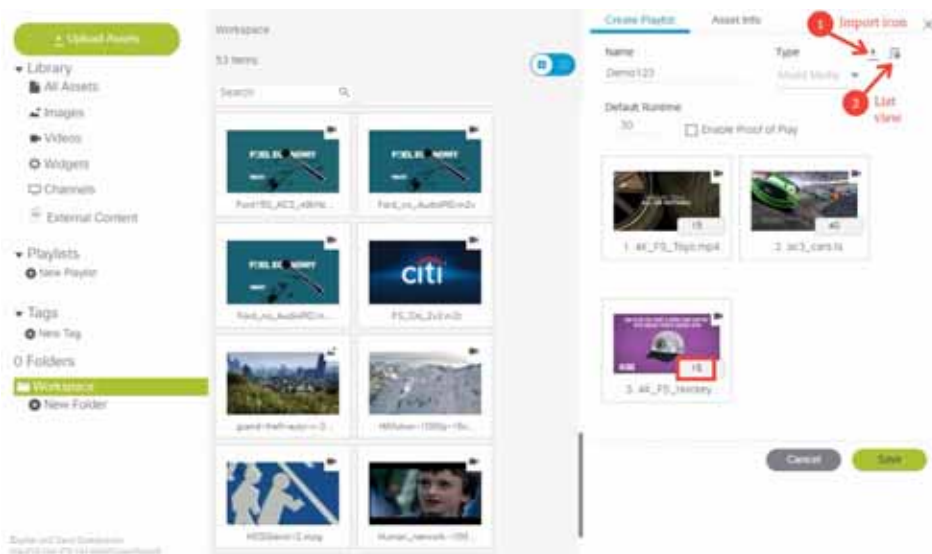

2. Specify the Playlist options, see Table 2 on page 147.

   a. Type a **Name** for your playlist.

   b. Use the pull-down arrow for **Type** of media. Best to choose **Mixed Media**.

Table 2   Playlist Options
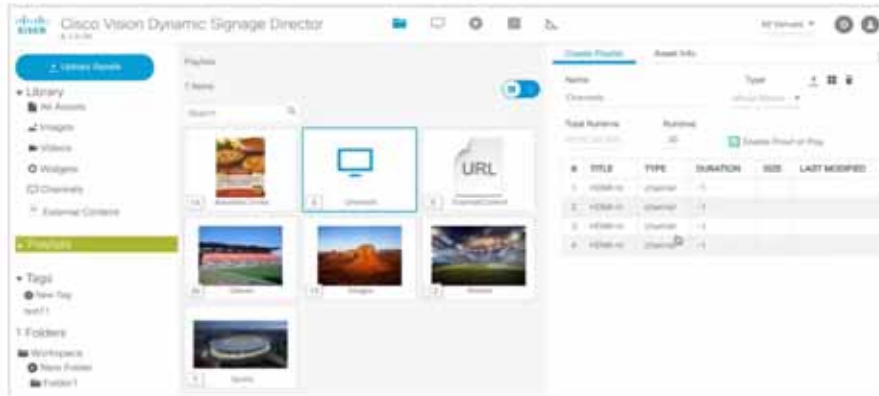
Option	Description
Playlist Name	(Required) Alphanumeric name for the playlist. Default is " New Playlist."
Type	Type of content to be used in the playlist: **Non Video**–(Default) Static graphics (images) only. **Video or Mixed Media**–Video content or combination of video and images.
Enable Proof of Play	Captures a log of items played for advertisement reporting. The default is Yes.
Default Item Duration	Length of time (in seconds) for the content item to play. The default is 30 seconds. Value must be an integer–fractions of seconds are not supported. Note: See the Guidelines for Creating Playlists, page 144 topic for information about how to properly use an item duration of 0 to loop content.
Playlist Total Duration	(Display field only) Estimates the length of time for all content items to play.

   c. Define Default Runtime (if necessary). Cisco default runtime is 30 seconds.

   d. Drag and drop content from the Asset Library (Figure 4 on page 147) or use the **Import** icon.

   e. Enable **Proof of Play** (check the box) to record the entire event script at your venue.

Figure 4   Importing Content to a Playlist

3. Click **Save**. The name of the new playlist will display in the text below the Playlist Items dialog box.

Figure 5   Playlist Specifics

The Playlist Detail in Listview shows: what order the content items were loaded, the title, the duration of each piece of content, the size, and when the playlist was last modified.

Adding Content Items to a Playlist

User Role: Administrator / Content Manager

IMPORTANT: For video walls, the playlist must have the same number of items, and the same duration for each content item. Each list item must be of the same type. For more information, see Prerequisites for Video Walls, page 168.

Adding Content Items from the Asset Library (Main Menu) to a Playlist

To add content items to a playlist:

1. From the **Main Menu,** click **Playlist > New Playlist**. The Create Playlist box appears on the right (Figure 3 on page 146).

2. In the Playlists pane, select the Name of the playlist where you want to add content items.

3. In the Asset Items list, select the content item(s) that you want to add to the playlist.

TIP: You can select multiple files using the standard multi-select keyboard strokes. Use the search or sort functions to find the content you want to add to the playlist.

IMPORTANT: Be sure to select content that is formatted for the proper TV display resolution where you will be running the playlist, and that it matches the region size where it will be displayed. For example, if the TV supports 1920x1080 resolution, the content you add to the playlist must be in 1920x1080 format to display properly on the TV screen.

4. Drag and drop files onto the Playlist Items area.

   Content is displayed in the order in which it was added. A thumbnail of each piece of content is shown in the Playlist Items box. The header above the playlist box will indicate the number of items in the playlist.

5. (Optional) To duplicate an item in the playlist, select a content item in the Playlist Items panel, and do one of the following:

   a. To duplicate an item once—Click the Item duplicate icon.

   b. To duplicate an item multiple times—Click the drop-down arrow and select the "Duplicate multiple times" option.

      In the Duplicate Contents dialog, specify the number of times that you want to duplicate the item and click Duplicate.

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Metadata-Validity and Playability

Tag an asset with metadata comprised of validity and playability information. Add granularity to your asset by configuring exactly when it is effective (validity) and exactly when it can be shown (playability). These values are typically provided by a sponsor or asset provider. Previously, an asset was unrestricted. Now assets are scalable.

To set validity and playability data:

1. Go to: **Library** > **Workspace** > Click as Asset. The Metadata window appears.

2. Set values (see). Click the **Edit** icon (pen) at top of panel.

   a. For validity, set the **Effective Start Date** and **Effective End Date.**

   Note: If you do not set this metadata, the default for all content is *forever*.

Figure 6   Setting Metadata Values

   b. If you do not set the end date, it will default to forever.

   c. If you do not pick a time, it will default to midnight (12:00 am).

   d. Slide **Restrict Playback** button to enable greater flexibility. The Playable options appear.

Figure 7   Restricting Playback of Content

e. Choose days of the week you want the content to validly play. Previously, the default for content was everyday (always valid); now it's scalable. Uncheck days you do not want the content to play.

f. Choose Start and End times.

g. Click the **Save** icon at the top of the panel.

IMPORTANT: No matter where the physical location of the DMP is, once you set the start/stop data, the time you choose is "local" to that DMP, meaning content will play on that DMP at exactly the time you set, even if you are located out of the same time zone from that DMP.

Note: When your content become valid in the script, that content is not *instantly* valid. Meaning the next time the playlist loops back, the content becomes available (valid and playable).

IMPORTANT: Cisco Vision Director does **NOT** support a playlist with NO valid content. A playlist has to have at least ONE piece of content that is valid. Therefore the default for all content, unless you set its metadata, is **always valid**.

Adding Static Graphics to a Non-Video Playlist by Direct Upload

You can drag and drop images from the Asset Library to a playlist, or, if you have not already uploaded the content to Cisco Vision Director, you can upload images directly to the playlist.

To directly upload static graphics to a non-video playlist:

1. Go to **Library,** click **Playlist > New Playlist**.

2. In the Playlists listing, select the name of the playlist where you want to add images.

TIP: Once you select images to upload, you can change the target playlist name or even create a new playlist for the selected content in the Upload dialog box. You can also create and apply tags to the content.

3. At the top of the Playlist Items pane, click the import icon (Figure 8 on page 151).

Figure 8   Import Images Directly to Non-Video Playlist

4. In the Open dialog box, select the images that you want to upload.

TIP: You can also select a compressed .zip file to upload multiple images.

5. Click **Open**.

6. In the Upload Content dialog box (Figure 9 on page 151), do the following:

Figure 9   Import Content Dialog Box

a. (Optional) Change the target playlist to another existing playlist, or type the name of a new playlist to be created.

b. (Optional) Apply an existing tag, or create a new tag name to apply to the content.

c. Click **Continue**.

Changing the Order of Content Items in a Playlist

User Role: Administrator / Content Manager

Content is displayed in the order in which it is added.

TIP: If you do not want a specific order of items, you can click **Randomize** to put the content items into an arbitrary order.

To change the order of content items in a playlist:

1. Go to **Library,** click **Playlist.**

2. Go to List view.

3. In the Playlist Items list, select the content item that you want to move and drag and drop it into the desired position in the list. If you place the thumbnail of the content on top of another thumbnail, they swap positions.

Replacing Content in a Playlist During an Event

User Role: Administrator / Content Manager

You can perform content updates in a playlist during content presentation as long as you follow important guidelines.

Restrictions for Event-Time Content Replacement

CAUTION: **Event-Time Content Replacement should be used with care if you are using Proof of Play due to impact of Proof of Play reporting if changes are made while a script is running. Weigh the cost-benefit of replacing content versus PoP impact. Once an updated event script has stopped running, the PoP will operate normally upon re-running of the script.**
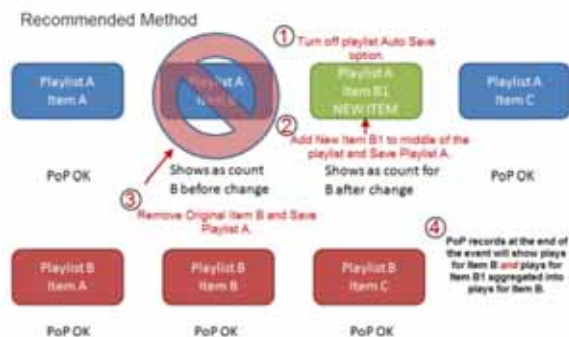
Before replacing content in a playlist during an event, consider the following restrictions:

- Avoid making the following types of playlist updates when using replacing content that is using Proof of Play:

    - Adding items to the end of a playlist—The new item will show up in the PoP raw data, but not the detailed report.

    - Removing an item from a playlist—Synchronization of the PoP reporting will be mismatched.

- The replacement content file name must be unique. Do not re-import content using the same file name as any existing playlist content item.

    The best practice is to Import the content item with a new file name and add it to the playlist before removing the content item to be replaced. See Figure 10 on page 152 for an illustration of the recommended workflow to preserve PoP reporting.

- Widgets are not supported for event-time content replacement.

- Content replacement can negatively impact video content synchronization and is not recommended. If you must consider this, plan to have non-video content available as the replacement.

Figure 10   Replacement of Existing Content Item

Enhancements to Content Replacement

New enhancements to content replacement allow you to update a playlist and save it, then update *another* playlist, without waiting for the first content replacement command to finish. In Release 6.0, you could make changes to a playlist, but not if the script that used the content you wanted to change was running. Content Replacement is defined as making changes to running scripts without restarting the script.

You can do multiple content replacements (playlist change or file upload) without waiting for the prior content replacements to finish. There are a couple limitations:

■ You can only have one replacement per content item or one replacement per playlist queued. In other words, you can't replace the same content a second time until the first replacement process finishes.

■ You cannot make *another* change to the same playlist until the first change to that playlist finishes.

■ All file uploads, even if you did not select content replacement, will temporarily block another upload of an item of the same name.

TIP: Check your work thoroughly before you start the content replacement process. That way, you won't need to go back and try to make more changes to your scripts before they get staged.

Note: Content replacement can invalidate the Proof of Play report.

This feature concerns uploading content to the Library (Director Server). Once completed successfully, this triggers uploading to the staging to the DMP specified.

To access content replacement:

1. From **Library > Upload Assets.** A dialog box appears. Choose the files (Figure 11 on page 153).

2. Click **Replace Now > Continue** if you want the content replacement to happen immediately, overwriting the content that may be staged to the DMP (Figure 12 on page 153).

3. This dialog shows you which content files are in conflict. Select the files to replace and click **Replace**.
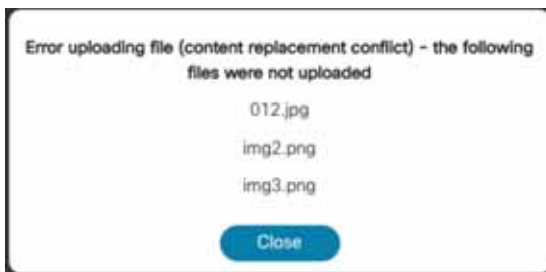
Figure 11   Upload Content Dialog Box

Figure 12   Content Replacement Conflict

4. Choose **CHANGE > Replace at script** start to stage the content to the DMP at script start (Figure 13 on page 154).

Figure 13   Replace at Script Start Option

If there is a previous upload that hasn't fully processed or you try to upload the same assets again, an error appears (Figure 14 on page 154). For these files, you must retry to upload them because no changes occurred.

Figure 14   Error Uploading File Message

Now you can perform content replacement on a second playlist (it cannot be the same playlist) even if the first playlist isn't done processing. With the newest content replacement enhancements you can make changes to running scripts, even if they have started.

Limitations to Content Replacement Enhancement

1. The Proof of Play may become invalid if you do content replacements

2. Content replacement only applies to local video and image files only (not channels, external URLs, or widgets)

3. Playlists containing 1 item will not content replace (change). To make this work:

   a. Create a playlist of the same item twice

   or

   b. Change states to a different state with a different playlist, then return to the prior state

IMPORTANT: If the DMP performs a reboot during this uploading and staging process, check your script and be sure the process completed and the replaced content commands will get pushed to the DMP. There is no auto-retry command to the DMP of the staging to make certain the content gets replaced. **Workaround**: Go the DMP staging screen and manually stage the content to the DMP.

Creating a Playlist with Looping Content

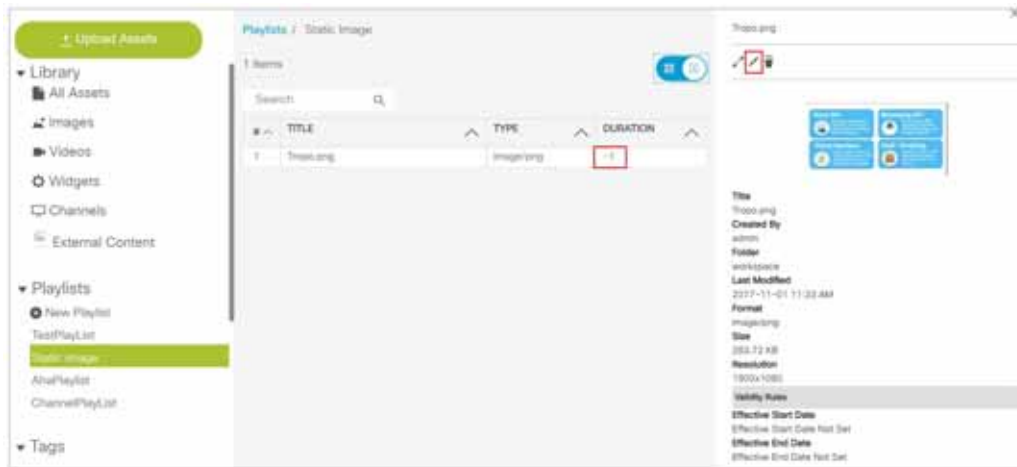User Role: Administrator / Content Manager

Once a playlist displays the last content item in its list, it will automatically loop, or replay content from the beginning of the playlist, as long as an item duration of 0 is **not** specified for the first content item.

For playlists with only a single video or non-video item, you need to be sure that the item duration and playlist duration to specific values to achieve a continuous replay (loop) of the playlist.
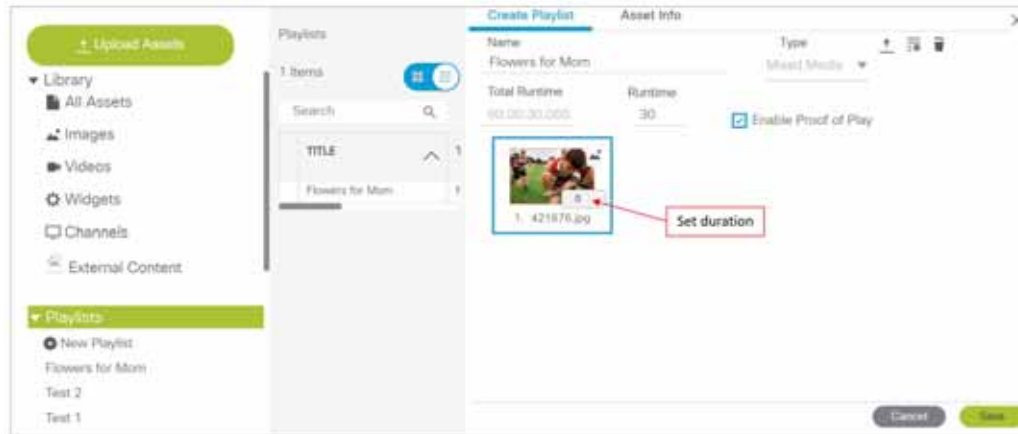
To create a playlist with looping content:

1. Go to **Library,** click **Playlist.**

2. Select an existing playlist or create a new one.

3. Change the screen to Gridview for the thumbnails.

4. Add content items to the playlist. For more information, see Adding Content Items to a Playlist, page 148.

5. Select the playlist that you want to modify and do the following:

   a. To loop a playlist with multiple content items—Automatic. Be sure that the item duration for the first content item in the playlist is not 0.

   b. To loop a playlist with a single, non-video item—Set the Default Item Duration for the playlist to a value greater than or equal to 0 and set the item duration to -1. Use the Pen icon to edit. See Figure 15 on page 155.

Figure 15   Duration Values to Loop Single-Item Non-Video Playlist

   c. To loop a playlist with a single, video item—Set both the Default Item Duration and item Duration to a value of 0 (Figure 16 on page 156).

IMPORTANT: When looping a single video item of 0 duration, be aware that content synchronization is lost on the SV-4K media player.

Figure 16   Duration Values to Loop Single-Item Video Playlist

6. Click **Update** for an existing playlist, or Save for a new one.

Setting the Item Duration in a Playlist

User Role: Administrator / Content Manager

IMPORTANT: For video walls, the playlist must have the same number of items and the same duration for each content item.

The Default Item Duration is set in the Playlist Details panel. The default value is 30 seconds.
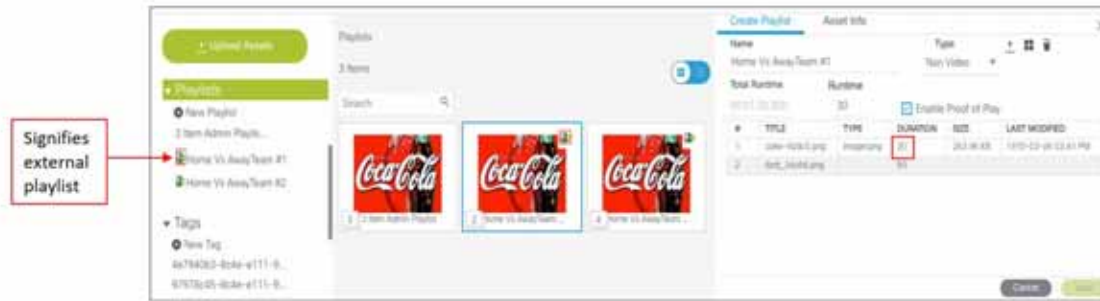
When you add non-video content items to the playlist, the value set in the Default Item Duration is used by default. In list view, you will see an item duration value of -1 (ignore) for the content item, which means that the default item duration set for the playlist is used.

Video content items use the length of the video as their default duration when added to a playlist.

To set the item duration in a playlist:

1. Go to **Library > Playlists**. Click on the playlist you want to check or change. The playlist content displays in Listview with all the durations shown for each asset (Figure 17 on page 157).

2. The the screen to Gridview for the thumbnails.

3. Select the existing playlist or create a new one.

4. Add content items to the playlist. For more information, see Adding Content Items to a Playlist, page 148.

5. In the Playlist Items panel, select the list icon so that you can see the content items detail, including the item Duration (Figure 17 on page 157).

Figure 17   Playlist Item Duration

6. Click the item Duration cell for the content item that you want to modify.

7. Type a value or use the spinner controls to set the item duration (in seconds), using the following guidelines:

    a. **For advertisements**—Set a value of 15 (recommended).

    b. **To use the Default Item Duration set in the playlist properties**—Use a value of -1 (This is the default).

    c. **To run a playlist one time (where last content-item is non-video)**—Set a value of 0 for the last non-video content item.

        The content will play one time, and the last non-video item will run until the end of the Event state.

IMPORTANT: If the last content item is a video, then the video will play one time and a black screen is displayed for the remainder of the Event state.

    d. **To loop a playlist with multiple content items**—Automatic. Be sure that the item duration for the first content item in the playlist is not 0.

    e. **To loop a playlist with a single, non-video item**—Set the Default Item Duration for the playlist to a value greater than or equal to 0 and set the item duration to -1.

    f. **To loop a playlist with a single, video item**—Set both the Default Item Duration and item Duration to a value of 0.

8. Click **Update** for an existing playlist, or **Save** for a new one. For more information about creating playlists with looping content, see Enhancements to Content Replacement, page 152.

Copying Content From One Playlist to Another

User Role: Administrator / Content Manager

You can easily copy content from one playlist to another. This task is useful for video walls or other groups of TV displays where you want to show identical content.

To copy content from one playlist to another:

1. Go to **Library,** click **Playlist**.

2. Create the new playlist if it does not already exist.

3. Select the name of the playlist that you want to copy content items from.

TIP: Use the Search box to find a playlist.

4. In the Playlist Items panel, select all of the items.

5. Drag and drop the content items to the target playlist in the Playlists panel where you want to copy the content.

6. Specify the Playlist options (see Table 3 on page 158).

Table 3   Specify Playlist Options

Option	Description
Playlist Name	(Required) Alphanumeric name for the playlist. Default is " New Playlist."
Type	Type of content to be used in the playlist: **Non Video**–(Default) Static graphics (images) only. **Video or Mixed Media**–Video content or combination of video and images.
Enable Proof of Play	Captures a log of items played for advertisement reporting. The default is Yes.
Default Item Duration	Length of time (in seconds) for the content item to play. The default is 30 seconds. **Note**: See the Guidelines for Creating Playlists, page 144 topic for information about how to properly use an item duration of 0 to loop content.
Playlist Total Duration	(Display field only) Estimates the length of time for all content items to play.

7. Click **Save**. The name of the new playlist will display in the text below the Playlist Items dialog box. Since you have not yet added items to the playlist, (0 Items) are indicated.

Deleting Content Items From a Playlist

User Role: Administrator / Content Manager

When you delete an item from a playlist, the item remains in the content library and is only removed from the playlist.

To delete an item from a playlist:

1. Go to **Library,** click the Playlist arrow to see the listing, select the playlist where you want to delete a content item.

2. In the Playlist Items panel, select the content item that you want to delete.

3. Click **Delete Playlist Item.**

IMPORTANT: There are two delete buttons that pertain to playlists–one to delete the actual playlist itself (**Delete Playlist**) and one to delete items in a playlist (**Delete Playlist Item**). Be sure to choose the correct button.

4. In the confirmation dialog box, click **Delete** to remove the item.

Deleting a Playlist

User Role: Administrator / Content Manager

When you delete a playlist, the playlist is permanently removed from the content library. However, the content items in the playlist are still available to you in the content library.

To delete a playlist:

1. Go to **Library,** click the Playlist arrow to see the listing.

2. In the Playlist thumbnails, select the playlist that you want to delete.

3. In the Playlist Detail Panel, select the trashcan icon (Delete).

4. Click **Delete Playlist**.

5. In the confirmation dialog box, click **Delete** to remove the playlist.

How to Set Up Playlists