Working with Content in Cisco Vision Director

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User Role: Administrator / Content Manager

This module provides information about how to use the Content screen to manage your content and an overview of the different content ingestion methods available in Cisco Vision Director.

This section includes the following topics:

Configuring the Default Video Channel

Specifying a default video channel allows you to quickly verify that video transmission is working after provisioning a media player without running an event script.

If the default video channel is not configured properly, or if a video channel is not available, then media players not running an event script will display a black screen. This is not necessarily a problem, but it does delay verification of proper multicast operation to the DMP.

To configure the default video channel:

1. Log into Cisco Vision Director as an administrator.

2. Go to the Management Dashboard.

3. Go to **Dynamic Signage Director Configuration > System Configuration > Dynamic Signage Director Settings.**

4. In the **Configuration Property,** find the **Default landscape content url** and the **Default portrait content url.**

5. Type the URL for the video stream (Figure 31 on page 82).

6. Save the changes (click disk icon in bottom right of panel).

7. Reload the media players.

Figure 31   Configuring the Default Video Channel
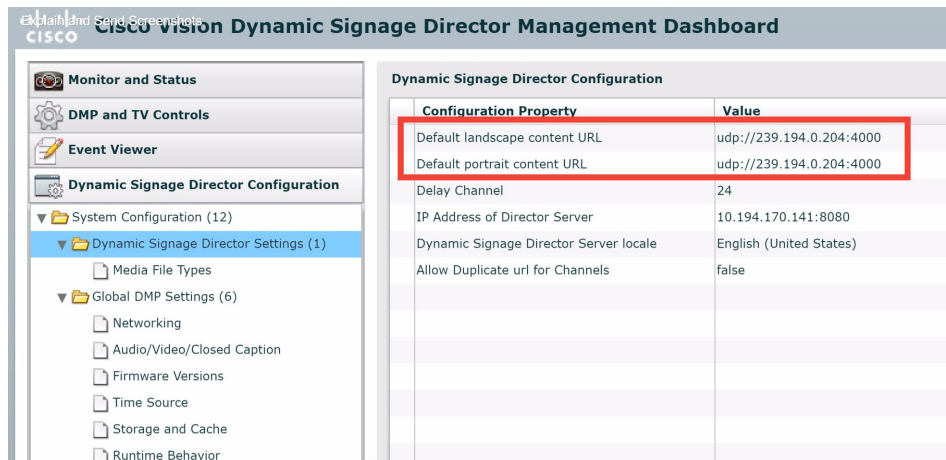
Tuning Selected Media Players to a Multicast URL

User Role: Administrator

You can tune one or more media players to a specific multicast URL in the Management Dashboard. This configuration will not remain after reboot of the devices but can be used as temporary workaround to a content issue at the venue.

To tune selected media players to a multicast URL:

1. From the Management Dashboard, go to:

2. DMP and TV Controls > TV Commands > Set Video Channel

3. In the Common panel, specify the URL for the multicast group (address and port) of the video channel that you want to display on the selected media players.

4. In the Select Devices panel, select the media players whose TV displays should display this default channel.

5. Click the Play button to send the command to the selected DMP.

Defining Channels and Channel Guides

Administrator / Content Manager

Cisco Vision Director allows you to distribute in-house video and re-distribute external channels including over the air (OTA) local channels, satellite, and cable TV. Video can be in either high definition (HD) or standard definition (SD). There is no limit to how many channels you can offer. The channels you select will be available for viewing anywhere you have TVs connected to DMPs: in bars and restaurants, the back office, and in luxury suites. Users can change channels from the IP Phone or using the IR remote.

Figure 32   Channel Guide Lineup on TV and IP Phone

Channel Lineup Designation at the Headend

A combination of external and internal channels make up the "channel lineup" that is available throughout the venue.

Although the concept of a channel number doesn't really exist in the IP world, channel numbers are typically assigned to each channel at the headend. These numbers are arbitrary, but can be numbered correspond to the top 15 channels that will show up on the IP phone control in the Luxury suites.

To enable channel selection at the endpoints:

■ On the Cisco DCM, each (in-house or external) channel received is mapped to its unique multicast group address and UDP port number.

■ In Cisco Vision Director, each unique multicast group/UDP port number pair is assigned a Vision channel number and a channel name.

■ Cisco Vision Director uses this mapping to direct DMPs to specific channels and populate an electronic program guide which lists the available channels.

Note: For information about how to configure the channel lineup at the headend, see the Cisco StadiumVision Video Headend Design and Implementation Guide available to qualified Cisco Vision partners.

Defining the Master Channel List

Once channels have been defined at the headend, you need to define a master channel list on the Setup > Channels page in the Cisco Vision Director Control Panel.

Consider the following before you configure the master channel list:

■ Channels to be offered: Decide how many in-house live video feeds you will have and which external channels you will offer.

■ Channel Numbering Scheme: You may want in-house channels at the top of your numbering scheme. You may want your numbering scheme to match the area satellite or cable numbering scheme. You may choose to hide some of the channels you have in house.

■ Channel Guide Appearance: Decide the channel guide descriptions that appear on the TVs in your luxury suites, bars, and restaurants and whether you want a team logo to appear on the screen.

■ For each channel that should appear in the channel lineup accessed by a Cisco IP Phone or IR remote, set the "Visible in IP Phone Guide" field on the Channels panel to Yes.

■ For each channel that is to appear in the channel lineup accessed by a third-party touch panel, set the "Visible in 3rd Party Guide" field on the Channels panel to Yes.

Adding Channels to the Master Channel List

Administrator / Content Manager

To add channels to the master channel list:

1. Open the Control Panel and select the Setup > Channels. The Master Channel List displays in the Master Channel List tab.

2. Click "+" at the top of the Master Channel List.

3. On the Basic Info tab, define the information listed in Table 13 on page 84. The description and source ID are optional.

Note: The Channel name configured in Cisco Vision Director should be limited to 12 characters or less. Due to the space allotted for channel names on the IP Phone interface, more than 12 characters may have undesirable results.

Table 13   Adding a Channel to the Master Channel List

Field	Description
Channel Name	The name of the channel as you would like it to appear on the channel guide that appears on your video displays. A maximum of 12 characters are supported.
Description	Description of what is playing on the channel (optional). This shows up on the TV only.
Multicast Address	The multicast IP address of this channel designated at the Cisco Vision headend.
Port	The multicast port used to communicate with this channel as designated at the Cisco Vision headend.
Channel Number	The number you want to assign to this channel. This channel number will appear in the channel guides on the TVs and IP Phones.
Source ID	Placeholder for future program guide integration. Not required.
Allow Ad Wrapping	Ad wrapping refers to displaying this channel in an L-wrapper or similar screen template where advertisements play alongside the video stream.
Favorite	Specify "yes" if you want the channel to be listed as a favorite in the channel guide controlled by a 3rd party touch panel.
Favorite Order	Enter a number (between 1 and 10) indicating the ordinal placement of this channel in the listing,

4. When you have filled in all the required fields, click Save. As soon as you save this channel, it will appear in the Master Channel List.

Note: You must Save before you add or modify another channel. As soon as you move from one channel to another without doing a save, all of your input is lost.

5. Repeat steps 3 and 4 to add all the channels you want to display in Cisco Vision.

Using "Favorites" (Third-Party Touch Panels Only)

In addition to the channel lineup, a maximum of 10 channels can be identified as favorites, which appear on the initial video control page of the third-party touch panels.

For each channel that should be listed as a favorite:

- In the Favorite field, select Yes.

- In the Favorite Order field, enter a number (between 1 and 10) indicating the ordinal placement of this channel in the listing.

Work with the third-party device integrator to determine how the favorites list should be displayed on the third-party touch panels. All installations should move to access channels directly versus indirectly through the favorites mechanism.

Sorting the Master Channel List

Click the Master Channel List column headings (Name or #) to sort the channel names alphabetically in ascending or descending order or by channel number. You can also use the filter box to see only the subset of channels that have the characters you specify in the filter. The filter is not case sensitive. For example, if you type "e" in the filter box the following channels will appear: ESPN, ESPN2, Universal, HD Theater, HDNet, HDNet Movies, and E.

Creating and Assigning Channel Guides

Once you have added channels to the Master Channel List, you can create "per-area channel guides" to display a custom channel guide in different areas of the venue. For example, you can have a different set of channels available in each of the suites, concourses, clubs, the owners suite, back offices, locker rooms, concessions and ticket windows.

The per-area channel guides are a subset of the master channel list, meaning the channels numbers and descriptions are preserved. For example, a venue may have raw in-house channels that they want to make available only to the coaching staff and not to the general public. This is achieved by creating two channels guides: one private and one public. The private channel guide is assigned to groups/zones of DMPs that control the TVs in the coaches office and locker rooms. The public channel guide is flagged as the default channel guide and hence is automatically assigned to all other DMPs.

You can designate one channel guide as the default channel guide. Cisco Vision Director automatically assigns this channel guide to any DMP that is not associated with a luxury suite, bar, restaurant, or other area that supports local control, or any DMP that does not have a channel guide defined.

Note: If you make changes to a channel guide that is associated with an area serviced by a third-party touch panel, the third-party device must reload the latest channel guide information. Consult the third-party device integrator (AMX or Crestron) for reload options.

Creating a Channel Guide

Administrator / Content Manager

To create a channel guide:

1. Add channels to the Master Channel List. For more information, see .

2. Open the Control Panel and select Setup > Channels.

3. Click the Channel Guide tab (next to the Master Channel List tab).

4. Click the plus (+) above the Channel Guide and type a name and description for the new channel guide.

5. (Optional) Enable "Default Channel Guide for All Suites" to make this the default channel guide.

6. Click Save.

Assigning Channels to a Channel Guide

Administrator / Content Manager

To assign channels to a channel guide:

1. Create a channel guide. For more information, see Creating a Channel Guide, page 85.

2. Open the Channel Guide tab and select the per area channel guide to which you want to assign channels.

3. Click Assign Channel. The Master Channel list displays.

4. Select the channels you want to add to the channel guide and click Add. The channels you add display in the Channel Guide window.

TIP: You can use the keyboard Shift-click and Ctrl-click functions to select multiple channels.

5. Click Save.

Assigning a Channel Guide to a Luxury Suite/Local Control Area

Administrator / Content Manager

This task should be done after the master channel list and per area channel guide has been created.

To assign a channel guide to a luxury suite:

1. On the Setup > Channels page, select the per-area channel guide.

2. Click Assign (under the "Used in Suites" list). The list of undefined luxury suites/local control areas displays.

Note: The term "Luxury Suite" is used to define not only Luxury Suites but also any local control area.

3. Select the luxury suites/local control area to which you want to assign the custom channel guide.

TIP: To select more than one suite/local control area, use the keyboard Shift-click and Ctrl-click keyboard functions.

4. Click Assign.

By default, when the channel guide is brought up on the IP Phone, it is also displayed on the selected TV(s). You can change this behavior by setting the "tvguide.autolaunch" parameter to 0 in the Cisco Vision Director Management Dashboard Registry. See Controlling the Behavior of the Channel Guide, page 88.

Adding Icons to the IP Phone Channel Guide

You can associate channel icons that display in the IP Phone channel guide. Channel icons must be obtained locally (the venue must obtain permission from the network) and must be a 24 x 24 PNG file. The most common is a third-party channel icon file that is a 100 X 100 PNG. Figure 33 on page 87 shows some examples.

Figure 33   IP Phone Icons

Uploading a Phone Channel Icon

You can upload and tag multiple icons for the same usage type at the same time.

To upload a phone channel icon:

1. Copy the icon graphic(s) to your local drive.

2. Select Setup > Channels.

3. On the Channels toolbar, click the Icon button. The icon list displays.

4. Click Upload Icon and browse to the png file you want to assign as a channel icon.

5. In the Import Content dialog box, enter the following information: Under "Keyword Tags to Apply" select where the channel icon will be used:

   – DMP (for TV banner)

   – Phone

   – 3rd Party Remote

6. Select an expiration setting.

7. Click Upload. The icon you uploaded will now appear in the icon list.

Assigning a Phone Channel Icon

Administrator / Content Manager

Once you have created a master channel list and uploaded phone channel icons, you can assign icons to the channels.

To assign a phone channel icon:

1. In the icon list, select the channel for which you want to assign an icon. The channel number displays in the Assigned Icons box.

2. Select the icon you want to assign to the channel.

3. Click Assign Icon.

4. Click Save. A message displays confirming the icon assignment was successful.

Channel Guide Behavior

- If a DMP is assigned to more than one Luxury Suite, it will use the Per-Area Channel Guide associated with the last Luxury Suite to which it was assigned. For example if a DMP is added to Suite 1 and then added to Suite 2, it will use the Channel Guide defined for Suite 2. For this reason, it is recommended that you do not assign a DMP to more than one Luxury Suite.

- If the user changes the channel via an IP phone, IR remote, or 3rd-Party remote, the channel chosen by the user will override the currently playing video playlist with the selected video.

- If the template is full screen video or 3-region video, the template will not change, but the video will change to the selected channel.

- If the template is full screen signage, the signage will be replaced with full screen video showing the selected channel.

- If the DMP is showing a playlist of video, the entire playlist will be replaced by the single video channel. For example, if the playlist contains three videos, all three videos will stop and be replaced by selected channel.

- When the state changes on a DMP that is associated with a local control area (luxury suite, bar, restaurant, etc.), the script contents will override the user's local control.

Therefore, if you expect a DMP to be locally controlled, any states in use during that period should not change the template or channel. This is particularly important when using ad hoc states with locally controlled DMPs. Cisco Vision Director will treat the return from an ad hoc as a state change, so if the base state has a channel setting, the channel on all locally controlled DMPs will return to the base channel when the ad hoc state ends.
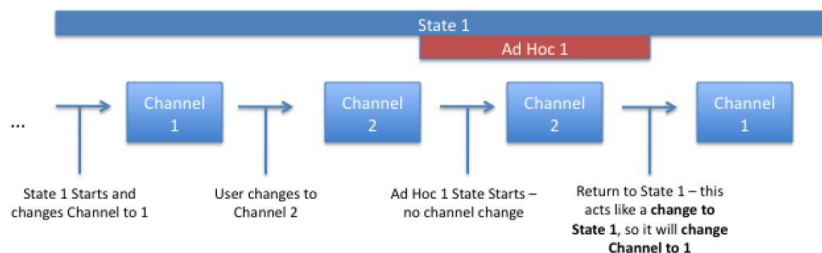
Controlling the Behavior of the Channel Guide

The appearance and behavior of the channel guide are controlled by parameters in the Cisco Vision registry. These settings control whether:

- A preview window is displayed when a channel is selected.

- The channel guide is automatically displayed on the TV when it is selected on the phone.

- The phone UI continues to display the channel guide after a channel has been selected.

For individual luxury suites, you can override the setting that controls the automatic display of the channel guide on the TV through the Control Panel.

Configuring Channel Guide Settings in the Registry

Administrator

To configure channel guide settings in the registry:

1. From the Management Dashboard, go to:

2. Tools > Advanced > Registry. To be sure that you are displaying the current settings, click Load.

3. Scroll through the Registry Data list to the desired parameters.

Note: To change the phoneControl.stayOnChannelSelect parameter from its default (1), you must add the parameter using Add Row.

4. Click the Value field beside each parameter and enter the appropriate values.

5. Click Apply.

Defining a Delay Channel

Administrator / Content Manager

If you have assigned DMPs to a delay zone, then you can configure the channel you want to display on the TVs controlled by the DMPs in the delay zone during the delay event state.

If no channel is configured, the DMPs will display the default channel during the delay event state.

To define a delay channel:

1. Open the event script.

2. Click the green plus sign (+) above the Ad Hoc states panel.

3. Enable the Manual transition button (the default setting).

4. In the Ad Hoc State box, click Edit.

5. Select the delay group from the tree list.

6. Select the Set FULLSCREEN action source and drag it to the Assigned Actions list.

7. Click Region 1.

8. Select the channel you want to play during a delay from the Playlist Sources channels list.

9. Drag the channel to the Assigned Playlists.

10. Click **Apply**.

11. Click **Save**.

Defining a Non-Event Channel

Administrator / Content Manager

If you have assigned DMPs to non-event zone, you can configure the channel you want the TVs to play when no event script is running in that non-event zone.

If no channel is configured, the DMPs will display the default channel during the non-event state.

To define a non-event channel:

1. Open the event script.

2. Click the green plus sign (+) above the Ad Hoc states panel.

3. Enable the Manual transition button (the default setting).

4. In the Ad Hoc State box, click Edit.

5. Select your non-event group from the tree list.

6. Select the Set FULLSCREEN action source and drag it to the Assigned Actions list.

7. Click Region 1.

8. Select the channel you want to play when no event script is running from the Playlist Sources channels list.

9. Drag the channel to the Assigned Playlists.

10. Click **Apply**.

11. Click **Save**.

Setup: Channel Source Types

A new channel source type called **External URL** that allows you to specify an HTTP, HTTPS, or HTTP Live Streaming (HLS) source as a channel, including HTML page sources.

HLS sources are hardware-accelerated on the DMP. The content is specified as an External URL source type in the Channels setup. The system recognizes the content as an HLS source based on the Allowed HLS file formats designated in the Management Dashboard. The default extensions allowed are **m3u** and **m3u8**. See Media File Types (New), page 36 of the Release Notes for Cisco Vision Dynamic Signage Director Release 6.0, page 1.

Note: This feature does not replace the existing HTML pass-through feature (**New External Content** button) from the Control Panel Content screen. HTML pass-through is recommended for content that might be considered for more temporary use in the system.

The Source Type field is available with Video Stream, External URL, and HDMI-In options (Figure 34 on page 90).

To choose a source type:

1. Go to **Control Panel > Setup > Channel**.

2. Click the **Basic Info** tab.

3. At **Source Type** pull-down, select **External URL** to choose an external url for your channel. The dialog box appears (Figure 35 on page 91).

Figure 34   Channel Source Types in Release 6.0
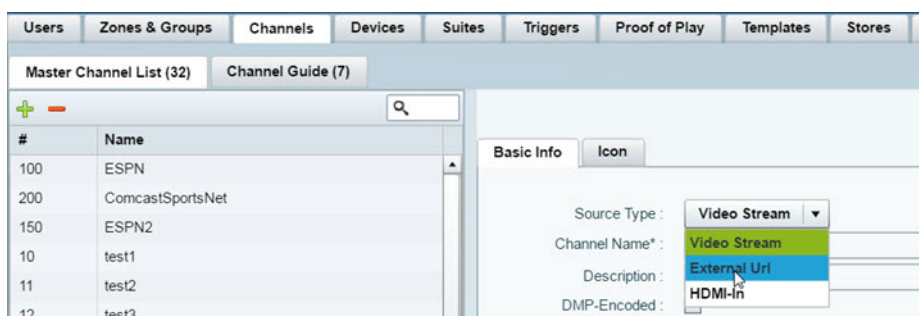
Use an external URL as a channel when you do not need synchronization of content, but you would like to be able to tune to that content from a script, User Control API, IP phone, or IR remote. External URL channels also can be streamed to a DMP-encoded multicast channel but do not support audio when streamed in that form.

Figure 35 External URL Channel Configuration

The items with an asterisk (*) are required.

How to Configure HDMI-In Video Sources on the SV-4K

This section includes the following topics:

Guidelines for Using HDMI-In on the SV-4K

When using HDMI-In on the SV-4K, consider the following guidelines:

- If using video with 4K resolution, be sure to observe the guidelines for 4K content in the Cisco Vision Content Creation Design and Specification Guide and use cables that are HDMI version 1.4 compliant.

- You can use different forms of local control only when using HDMI-In encoding to stream video as a multicast channel. Otherwise, you need to use scripts to start/stop streaming.

- If you want to maintain privacy of channels, create a DMP-encoded channel per suite with a unique multicast address (from 239.193.20.0/24 range), and create a separate channel guide per suite.

- For example, if you have 10 suites—create 10 separate DMP-encoded channels with unique multicast addresses, create 10 different channel guides for each DMP-encoded channel, and assign each suite to a different channel guide.

Prerequisites for Using HDMI-In on the SV-4K

Before you use HDMI-In on the SV-4K, be sure that the following conditions are met:

■ You have purchased a separate encoder software license. For more information, see the Release Notes for Cisco Vision Director.

■ Test the devices that you plan to connect to the SV-4K HDMI-In port to stream content for HDCP support.

■ 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.

■ When using HDMI-In encoded video channels, be sure that you have configured the allowable multicast range 239.193.20.0/24 for this feature in the Connected Stadium network.

Restrictions for Using HDMI-In on the SV-4K

Before you use HDMI-In on the SV-4K, consider the following restrictions:

IMPORTANT: The HDMI-In port on the SV-4K media player can only be supported either as a source to video region or source to encoder as a channel, but not both. Therefore, you cannot have a script in a state which tunes to the HDMI-In as video source in a region, and then transition to the next state where you are streaming video from HDMI-In.

■ Videos with 4K resolution are not supported for HDMI-In streaming.

■ When using HDMI-In encoding to stream video content as a multicast channel:

– The streaming state is synchronized only when streaming is started by script, IP phone, IR remote, or User Control API—not when started from the Management Dashboard.

  This means that if you start streaming from the Management Dashboard, then the IR remote menu might not properly show which channel is streaming or not streaming.

– The SV-4K playing HDMI-In encoded video stops streaming if the DMP is rebooted, even though the script is running. Start Streaming is a direct command, which is sent when the svd server changes state (like RS232 commands or tv on /off type commands). It is only executed when the state is changed, so it is not re-executed on reboot.

Configuring HDMI-In as a Video Source in a Region on the SV-4K Media Player

Administrator / Content Manager

To configure HDMI-In as a video source in a region:

1. From the Cisco Vision Director **Main Menu**, go to: **Event Management > Control Panel > Schedule** (Figure 36 on page 93).

Restrictions for Using HDMI-In on the SV-4K

Figure 36   Control Panel Schedule Screen Workflow
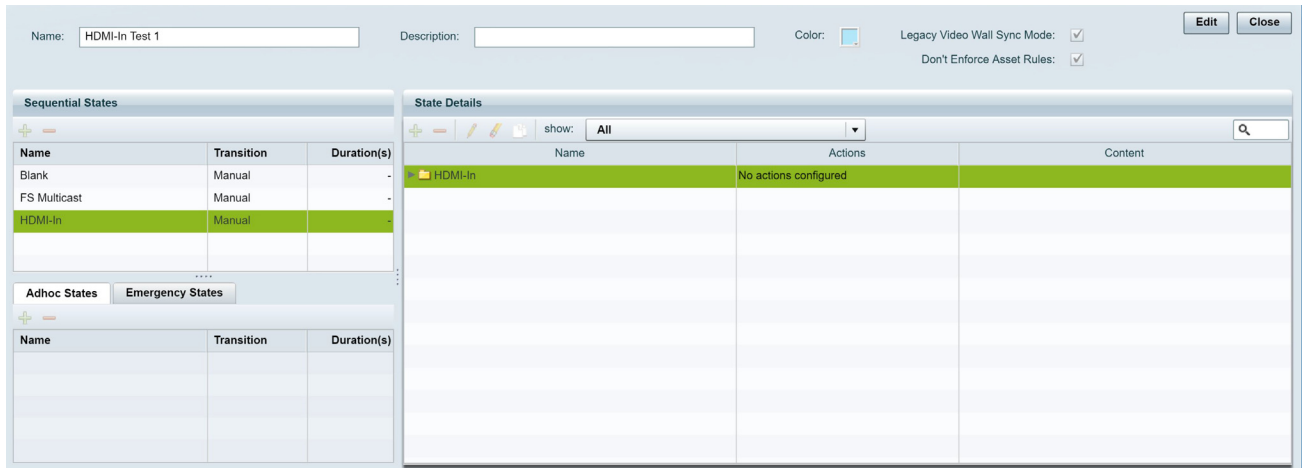
2. Create a new script by typing a name ().

3. Add the state named HDMIIn_State.

4. Select the group/zone where the event script runs to assign actions and content to the HDMIIN_State ().

Restrictions for Using HDMI-In on the SV-4K

Figure 37   New State Name

Figure 38   Script State

5. Select a video/mixed media template.

6. Click **Channels**.

7. Drag Local HDMI-In to a template region.

8. Click **OK** to save the script.

Verifying the Script Plays Local HDMI-In Content

To verify (Figure 39 on page 95) that the script plays the local HDMI-In content:

Figure 39   Script Verification
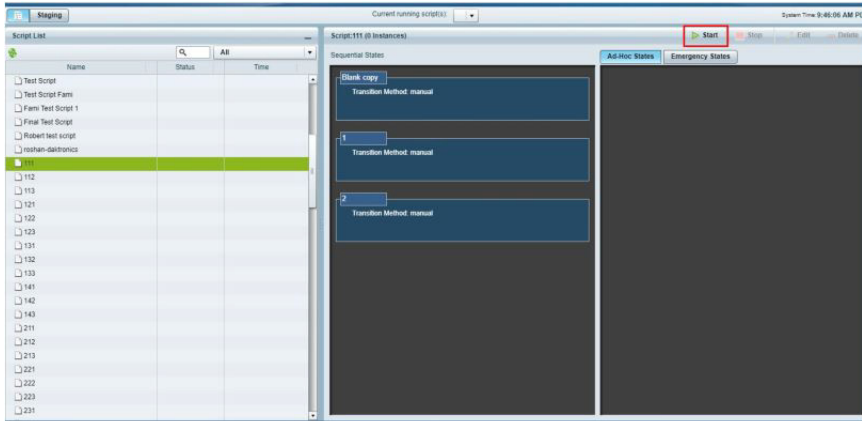
1. \From the Cisco Vision Director Main Menu, go to **Event Management > Control Panel > Control**.

2. Select the Local HDMI-In script that you created. The Start Script dialog box appears (Figure 40 on page 95).

Figure 40   Start Script Dialog Box
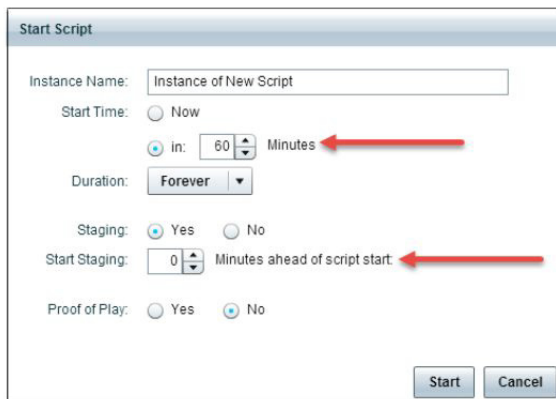
3. Add in all the parameters.

4. Click **Start**.

Figure 41   HDMIIN_State Verification
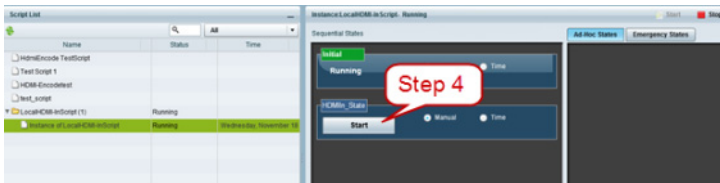
5. Start the HDMIIn_State. Verify that the TV display for the target DMP is playing the expected HDMI-In content.

Configuring a DMP-Encoded Multicast Channel on the SV-4K in Cisco Vision Director

Administrator / Content Manager

To configure a DMP-encoded multicast channel on the SV-4K:

1. From the Cisco Vision Director **Main Menu, Event Management > Control Panel > Setup > Channel.**

2. Select or create a channel guide where you want to include the DMP-encoded channel.

TIP: If you want to maintain privacy of channels, create a DMP-encoded channel per suite with a unique multicast address (from 239.193.20.0/24 range) and create a separate channel guide per suite.

3. From the Basic Info tab, configure the options shown in and described in .

Figure 42   DMP-Encoded Multicast Channel Example

Table 14   DMP-Encoded Multicast Channel Options

Option	Description
Channel Name	Simple name for the channel that will appear in local control devices.
DMP-Encoded	(Required) Select this checkbox to configure an encoded multicast channel on the SV-4K.
Maximum Bit Rate	Two times the encode bit rate.
Video Mode	Resolution that matches the configuration of the content and TV display.
TTL	Time-to-Live for the multicast packet.
Display Encode Bitrate	Value between 2000 to 25000 Kbps.
Protocol	UDP
Multicast Address	(Required) Multicast address from range 239.193.20.0/24 according to your Connected Stadium network configuration.
Port	(Required) Multicast port.
Channel Number	Number that appears in local control.

4. Click **Save**.

Starting and Stopping HDMI-In Streaming on the SV-4K Media Player

Table 15 on page 97 summarizes the methods of starting and stopping streaming for HDMI-In video sources on the SV-4K.

Table 15   Methods for Starting and Stopping HDMI-In Streaming by Type of HDMI-In Content Source

Method	HDMI-In as Video Source	DMP-Encoded Multicast Channel
IP Phone	No	Yes
IR Remote	No	Yes
Management Dashboard	No	Yes
Script	Yes	Yes
User Control API	No	Yes

Note: When the Management Dashboard is used to start/stop streaming for a DMP-encoded multicast channel, the channel parameters are configured directly in the Management Dashboard.

Starting and Stopping Streaming by IP Phone

A luxury suite user can use a configured IP phone to select HDMI-In Broadcast on the selected DMP-encoded player. The user can select the configured DMP encoded channels or Off to start streaming or stop streaming respectively.

For more information, see the phone guide **Using a Cisco Unified IP Phone with Cisco Vision: HDMI-In Broadcast**.

Starting and Stopping Streaming by IR Remote

A luxury suite user can use an IR Remote to broadcast HDMI-In contents. On selection of the HDMI-In Broadcast menu, the list of DMP-encoded channels for streaming are listed for selection and 'Off' to stop streaming.

Starting and Stopping Streaming by Script Action

Two new actions of Start and Stop streaming can be defined as actions within a script. When the script starts running according to the defined state either start streaming or stop streaming action will be executed.

Starting and Stopping Streaming by Management Dashboard Command

Administrator

To start and stop streaming in the Management Dashboard:

Figure 43   Start/Stop Streaming Commands in Management Dashboard
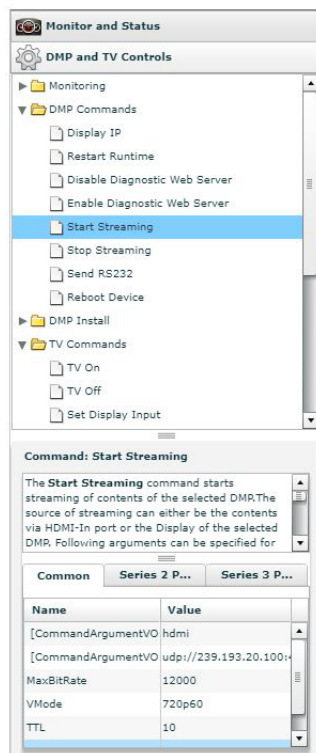
1. From the **Management Dashboard**, go to **DMP and TV Controls > DMP Commands > Start Streaming**.

2. Configure the DMP-encoded channel options in the SV-DMP Parameters.

3. Select the SV-4K device where you want to start HDMI-In streaming.

4. Click the **Play** button to execute the command.

5. From the Management Dashboard Console, verify that the Start Streaming command is successful.

HDMI-In Streaming Versus Display Streaming

For HDMI-In streaming, what streams from the DMP is the audio/video from the HDMI-In port source ONLY (Figure 44 on page 100).

For Display Streaming, entire video composition (without audio) will be streamed from the DMP - i.e., an encoded rendition of what you see on the TV connected to the DMPs HDMI-out.

Display streaming can be used even when your video source is not HDMI-In, or in cases where you want to encode/stream not just HDMI-In but also other elements on the screen, or maybe an HTML5 page (you don't need a video source in display streaming) Display streaming parameters are set in channels where the DMP is the encoder (DMP encoded channels).

HDMI-In Streaming

Local HDMI-In (HDMI-In Pass-Through Supported by SV-4K and CV-UHD Players)

Script Configuration

1. Assign for DMP .94 pre-defined Channel 0 "Channel HDMI-In" to action **Full Screen Mixed Video**.

When script runs, all input from HDMI-In will be streamed out to the Display via HDMI-OUT (Figure 45 on page 100).

Restrictions for Using HDMI-In on the SV-4K

Figure 44   HDMI Streaming

Figure 45   Full Screen Video Streaming

DMP HDMI-In Streaming

Script configuration

1. Create DMP-encoded CH1 configuration (Figure 46 on page 101).

Figure 46   Create DMP-Encoded Channel 1

2. Attach video source to HDMI-IN.

3. For DMP .94 (Figure 47 on page 101): Script action Start HDMI-In Streaming and assign it to DMP encoded channel 1.

4. For DMP .93: Tune in on DMP Encoded channel 1 (Figure 48 on page 101).

Figure 47   Start HDMI-In Streaming to DMP-Encoded Channel 1

Figure 48   DMP-Encoded Channel 1

5. On DMP .94: stop display streaming (Figure 49 on page 102).

Restrictions for Using HDMI-In on the SV-4K

Figure 49   Stop HDMI-In Streaming

HDMI-In Streaming with External URL Source or Playlist

When you want to use the DMP HDMI-IN encoder to broadcast an External URL Script or a Playlist, there is an additional head-end DMP required (DMP .95).

Script Configuration

1. Create separate script and run Ex. Mixed playlist on DMP .95.

2. Connect the HDMI-OUT to the HDMI-IN of DMP .94 ().

Figure 50   Start HDMI-In Streaming and Assign to DMP-Encoded Channel

3. In DMP .94 Start HDMI-Streaming and assign to DMP encoded Channel.

4. DMP .93: Select DMP Encoded channel 1.

5. On DMP .94, stop display streaming ().
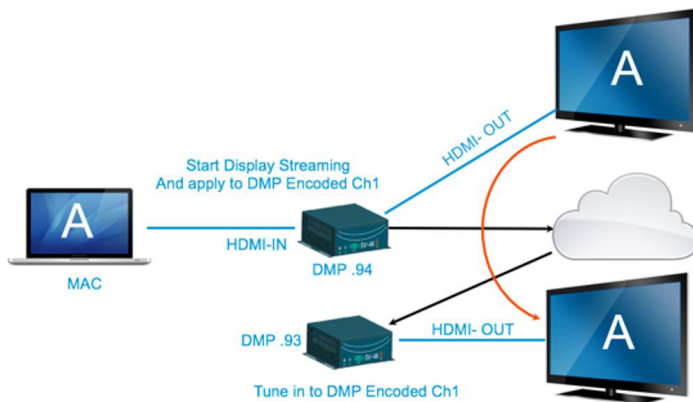
Figure 51   Stop HDMI-In Streaming on DMP 94

Restrictions for Using HDMI-In on the SV-4K

Display Streaming

Display Streaming with Video Source Input on DMP HDMI-In

In this scenario, everything entering the HDMI-IN is displayed on the TV connected to the encoder DMP (DMP .94) and will be streamed out on DMP channel Encoded Ch1.

Script Configuration

1. In DMP .94, start display streaming () and assign to DMP encoded Channel 1 ().

Restrictions for Using HDMI-In on the SV-4K

Figure 52   Start Display Streaming on DMP .94

Figure 53   Select Streaming Channel

2. For DMP .93, tune to DMP-encoded Channel 1 (Figure 54 on page 104).
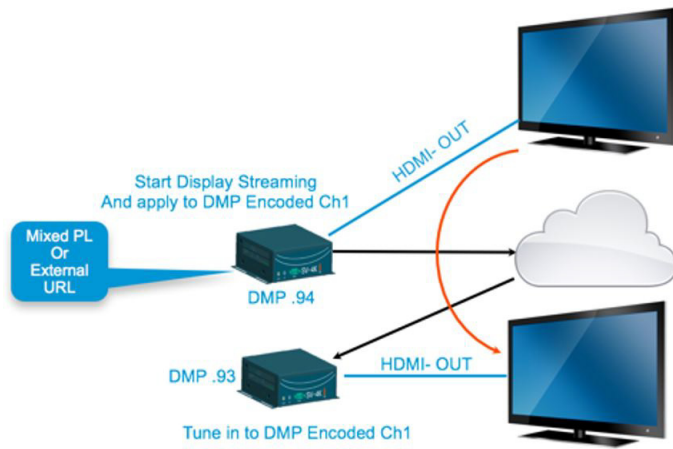
Figure 54   Start Display Streaming on DMP .93

Display Streaming with External URL or Mixed Media Playlist

In this scenario, no HDMI-IN of the DMP is used. A script in DMP 94 is setup and started. Once the script runs, "Start Display Streaming" will attach it to the DMP-encoded channel, functioning as a multicast channel.
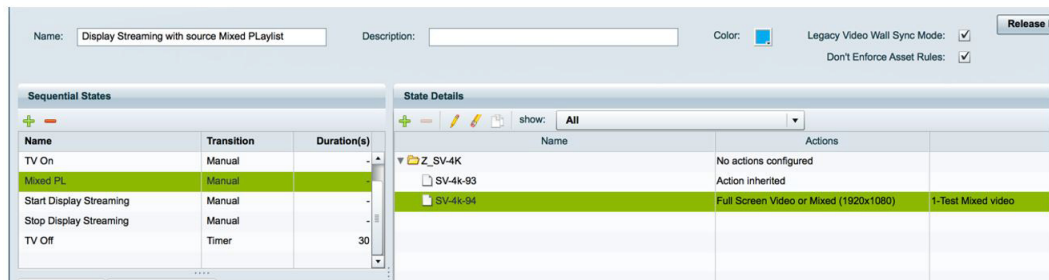
Restrictions for Using HDMI-In on the SV-4K

Script Configuration

1. Set up script.

2. Choose event state "Mixed PL."

3. Assign "Full Screen Video or Mixed (1920X1080)" to DMP .94 (Figure 55 on page 105).

Figure 55   Assign DMP .94

4. For DMP .94, Start Display Streaming (Figure 56 on page 106) and assign it to DMP-encoded Channel 1 (Figure 57 on page 106).
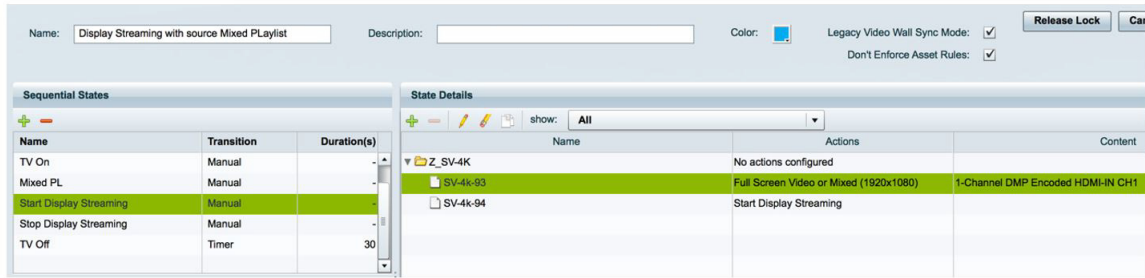
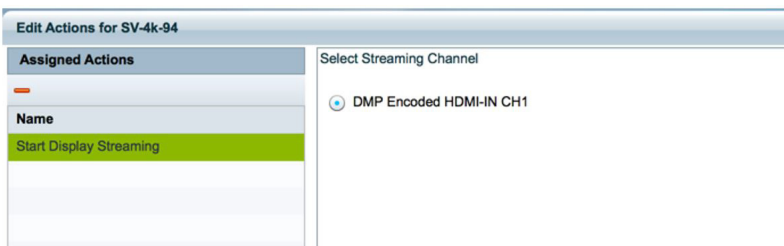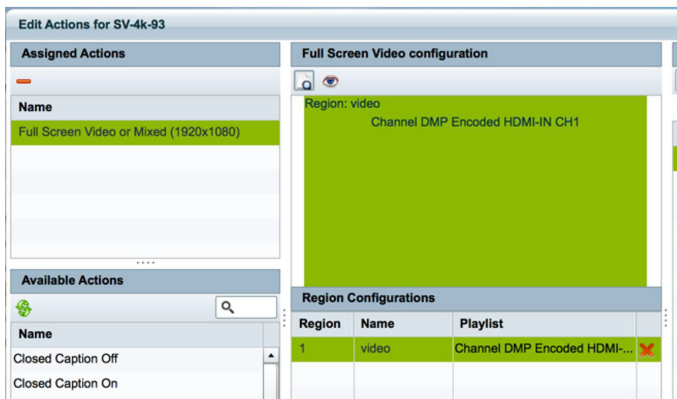**Figure 56   Start Display Streaming on DMP .94**
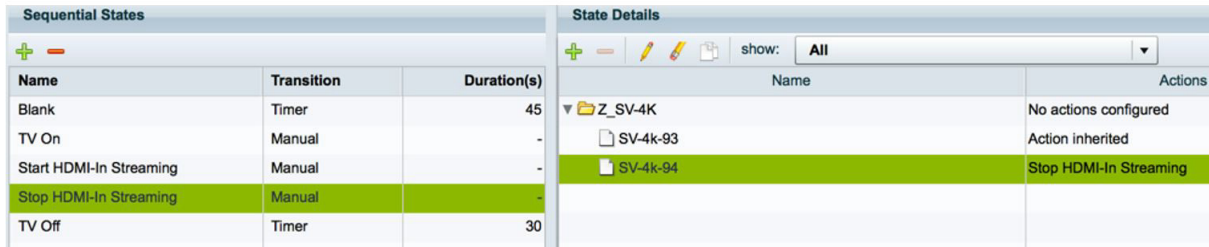

Figure 57   Select Streaming Channel

On DMP .93, choose the DMP-encoded channel 1 (Figure 58 on page 106).

Figure 58   Assign DMP .93 to Channel DMP Encoded HDMI-In Channel 1

On DMP .94, Stop HDMI-In Streaming (Figure 59 on page 106).

Figure 59   Stop HDMI-In Streaming on DMP .94

How to Manage Content

This section includes the following topics:

- Information About the Content Screen, page 107
- Creating and Assigning Content Tags, page 111
- Removing a Tag From Content, page 112
- Getting Content Into Cisco Vision Director, page 113

Information About the Content Screen

The Control Panel Content screen allows you to both manage content as well as create and modify playlists.

Use the Content screen to do the following tasks:

- Import static graphics or local video content.
- Add an HTML pass-through URL.
- Manage content:
  - Sort the content by name, type, URL, size, or expiration date.
  - Search for content.
  - Tag content.
  - Delete content.
- Create and manage playlists.

Content Screen Views

The Content screen has three views:

- Content View, page 107 (default)
- Playlist View, page 108
- Split View, page 109 (content and playlist panels displayed)

The menu bar is organized based on the selected view.

Content View

Figure 60 on page 108 identifies the content-related layout and task options available from the Content view.

Several areas of the Content view also appear in the other screen views.

Figure 60   Content View Navigation

Content Items Panel

Content items can be displayed as thumbnails or as a file list with details.

By default, the Content Items panel shows thumbnails of the following items stored in the Content Management System (CMS) library:

- Dynamic Menu Board (DMB) gadgets

- Images (static graphics)

- Pass-through URLs

- Videos

- Widgets

Items Not Displayed in Content Items Panel

Certain content types and applications in Cisco Vision Director are not directly visible from the main Content screen in the Control Panel, including the following:

- Data integration sources (RSS feeds, generic data sources, other).

- Dynamic Menu Board (DMB) default images and themes.

- Content albums (images or videos).

- Uploaded fonts.

Playlist View

identifies the playlist-related layout and task options available from the Content view.

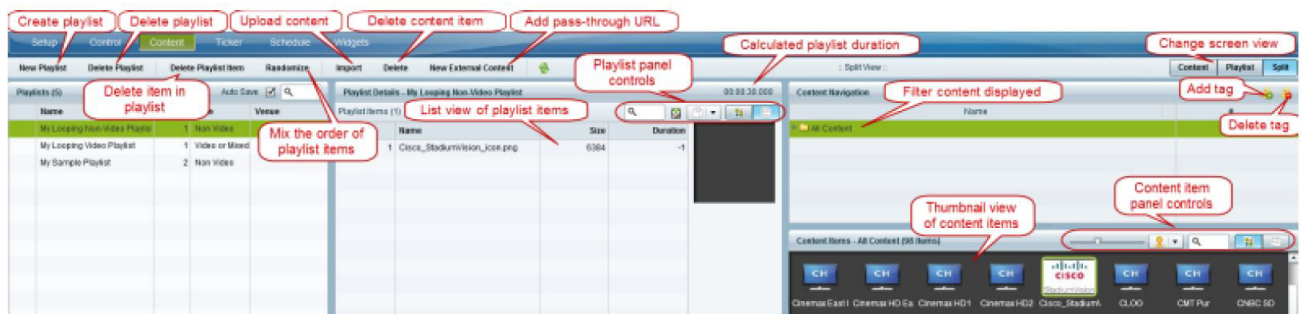Several areas of the Playlist view also appear in the other screen views.

Figure 61   Playlist View Navigation

Split View

Figure 62 on page 109 identifies the layout and task options for the combined views for content and playlists on the same screen.

Figure 62   Split View Navigation

Content Search Methods

You can use the Control Panel Content screen to find your content items or playlists in multiple ways:

■ Search for content items assigned with a particular tag name by selecting the tag in the Content Navigation panel.

■ Search for content items by name or file type using the Search box on the Content Items panel.

TIP: You can enter the first few letters of the content file name, or enter a file type such as ".jpg" in the search box.

■ In the Content Items panel, sort the content by name, type, or size to locate content.

■ Search for playlists using the Search box on the Playlist panel, and by typing in the first few letters of the playlist name.

Content File Information

You can use the Control Panel Content screen to get file information about your uploaded content in either thumbnail or list view.

Thumbnail View File Information

From thumbnail view, you can select a content item and click the arrow in the lower right corner and select **Get Info** (Figure 63 on page 110).

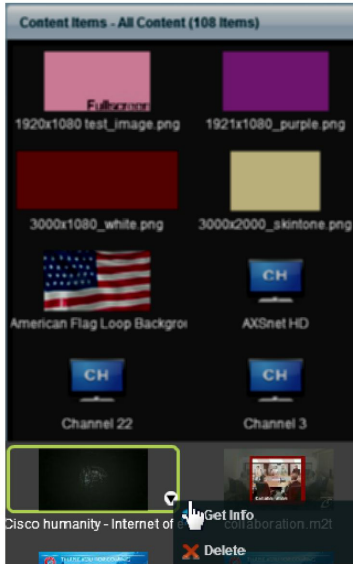**Figure 63   Get Info for Content Item in Thumbnail View**

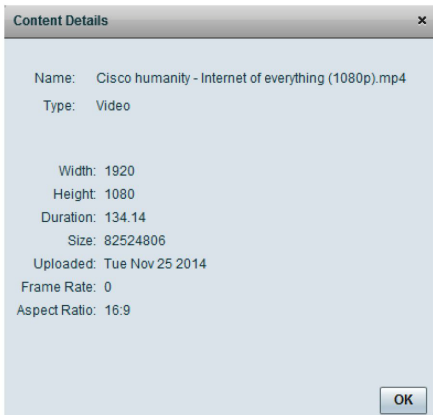Figure 64 on page 110 shows an example of the file information that is displayed for the selected video file in the Content Details window.

Figure 64   Content Details Window for Video Content

List View File Information

Figure 65 on page 111 shows an example of the file information available in list view for the same selected content item shown in Figure 63 on page 110 thumbnail view.

Figure 65   File Information in List View

Guidelines for Content Tags

Consider the following guidelines to create content tags:

■ Proof of Play processing requires the following naming convention:

■ <tag name> **_PoP**

where <tag name> is the name for your proof of play label, and the "_PoP" suffix is required to designate the label for proof of play processing.

■ The following characters are not supported in tag names: / ? < > \ : * | "

■ Content in multiple playlists can use the same tag. The number of playlists that have content assigned to a tag displays under the # column in the Content Navigation window next to the tag name.

Creating and Assigning Content Tags

Administrator / Content Manager

TIP: Consider assigning zone and group names as tags for the content files used in those areas. This allows you to type in a single search word or phrase and find all the content for a given zone or group, such as "Luxury Suite Delta" or "Concourse A." You can also use tags that correspond to the type of content in the playlist, such as "menu."

To create and assign content tags:

1. Go to Control Panel > Content.

2. In the Content Navigation panel, click the " Add new tag" icon.

3. In the name box, type a new name for the tag.

IMPORTANT: The following characters are not supported in tag names: / ? < > \ : * | ".

Be sure to include the required "_PoP" suffix in your tag name for proof of play records. For more information about Proof of Play, see the Cisco Vision Director Proof of Play.

4. To assign a tag to content, drag and drop content items from the content library to the tag name in the Content Navigation panel (Figure 66 on page 112).

Figure 66   Assigning a Content Tag
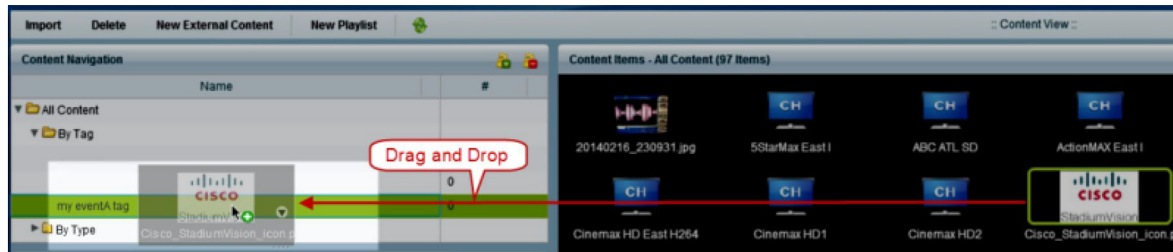
TIP: Content can also be assigned to tags when you first upload the content to the library.

5. To verify that the content has been assigned to the tag, click the tag name. The content assigned to the selected tag will display in the Content Items area (Figure 67 on page 112).
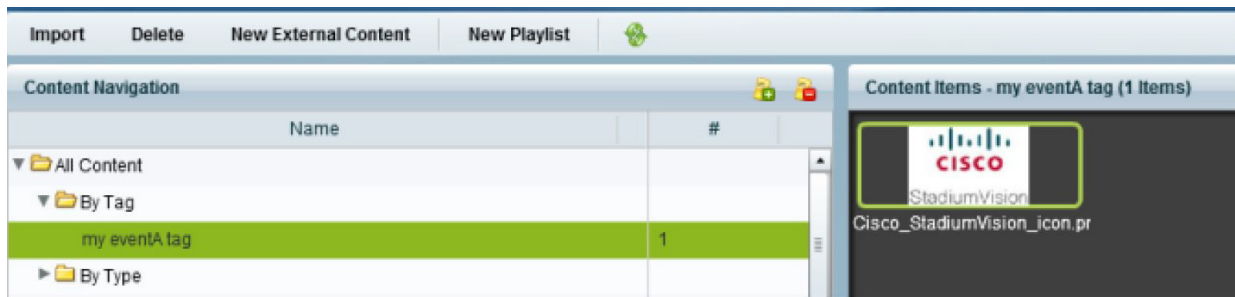
Figure 67   Viewing Tagged Content

Removing a Tag From Content

Administrator / Content Manager

When you remove a tag from content, the content will no longer be associated with that tag but the content itself remains in the content library. Figure 68 on page 112 summarizes the steps to remove a tag from selected content.

Figure 68   Workflow Summary to Remove a Tag From Content
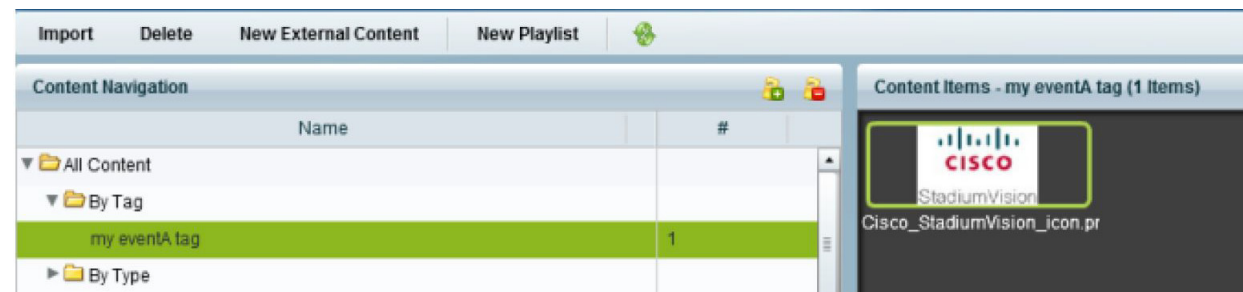
To remove a tag from content:

1. In the Content Navigation panel, select the tag name. The content items for that tag display in the Content Items panel.

2. Click on the content item from which you want to remove the tag.

TIP: Use the keyboard Shift-Click function to select and untag multiple content items assigned to a tag.

3. Click "Remove selected tag from content" icon with the red "x".
There is no confirmation prompt. The tag is immediately removed from the content.

Getting Content Into Cisco Vision Director

Cisco Vision Director supports a wide variety of content types and methods for ingesting content.

There are limitations and specifications for the content size and formats supported by Cisco Vision. These vary depending upon a number of factors including the TV display resolution, the media player used in the venue, the screen template region layout, and the TV proximity to the fans.

Before you deploy content to Cisco Vision Director, be sure that you refer to the Cisco StadiumVision Content Creation Design and Specification Guide to be sure the 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 region into which it will be placed, the image will either be cropped or there will be blank space in the region.

Table 16 on page 113 summarizes the different content types supported by Cisco Vision Director, the methods of how you ingest the content, and references to topics in this document and other external guides where you can find the details about how to work with that content type.

Table 16   Content Ingestion Methods by Type of Content

Type of Content	Method	For more information see:
Channel Guide	Control Panel > Setup > Channels	Configuring the Default Video Channel, page 81
Content Feeds (Atom, RSS)	Control Panel > Setup > Data Integration	Cisco Vision Director External Content Integration Guide
Database (MySQL or SQLServer)	Control Panel > Setup > Data Integration > Generic Data Source	Cisco Vision Director External Content Integration Guide
FTP Data	Control Panel > Setup > Data Integration > Generic Data Source	Cisco Vision Director External Content Integration Guide
HTML Pass-Through	Control Panel > Content > New External Content	Adding a URL for HTML Pass-Through Content, page 114
HTTP/HTTPS Data	Control Panel > Setup > Data Integration > Generic Data Source	Cisco Vision Director Data Integration Guide
JSON Data	Control Panel > Setup > Data Integration > Generic Data Source	Cisco Vision Director Data Integration Guide
Menu Boards Using DMB	Main Menu > DMB Application	Cisco Vision Director Dynamic Menu Board and Store Configuration Guide
Menu Boards Using POS Data Sources	Control Panel > Setup > Data Integration	Cisco Vision Director Data Integration Guide
NFL Data	Control Panel > Setup > Data Integration	Cisco Vision Director Data Integration Guide

Type of Content	Method	For more information see:
Scoreboard Controllers	Control Panel > Setup > Data Integration	Cisco Vision Director Data Integration Guide
Static Graphics (Content screen)	Control Panel > Content > Import	Importing Local Video and Images to the Content Library, page 114
Static Graphics (Direct upload to non-video playlist)	Control Panel > Content > Playlist view	Adding Static Graphics to a Non-Video Playlist by Direct Upload, page 126
TCP Data	Control Panel > Setup > Data Integration > Generic Data Source	Cisco Vision Director Data Integration Guide
UDP Data	Control Panel > Setup > Data Integration > Generic Data Source	Cisco Vision Director Data Integration Guide
Video (Headend)		Cisco StadiumVision Video Headend Design and Implementation Guide (Available to qualified Cisco Vision partners.)
Video (Local)	Control Panel > Content > Import	Importing Local Video and Images to the Content Library, page 114

Importing Local Video and Images to the Content Library

Administrator / Content Manager

To import local video and images from the Content screen:

1. Go to **Control Panel > Content.**

2. Click **Import**.

TIP: Use the keyboard Shift-Click function to select and untag multiple content items assigned to a tag.

3. Browse to the file that you want to upload.

TIP: Use the drop-down box by the File name to filter your selection by file type, including .zip files.

4. Click **Open**.

5. From the Import Content dialog box, do the following:

    a. (Optional) Add or delete available tags.

    b. (Optional) Select available tags to be assigned to the content that you are uploading.

    c. Click **Upload**.

Adding a URL for HTML Pass-Through Content

Administrator / Content Manager

For HTML content guidelines, see the Cisco Vision Content Planning and Specification Guide.

To add a URL for HTML pass-through content:

1. Go to **Event Management > Control Panel > Content.**

2. Click **New External Content.**

3. Type the name and URL for your content.

4. Click **Save**.

Staging Content to the Media Player

Once you have content uploaded to Cisco Vision Director, it must be pushed to the media player before it can be run by a script. This process of pushing content to the media player is called **content staging**.

Content staging needs to be done when:

■ (SV-4K and DMP-2K only) New custom fonts or language packs have been installed in the Software Manager.

■ There have been changes to any content imported to the content library (CMS). This includes local video and graphics files.

Note: Changes to widgets or data integration sources do not require content staging.

There are two ways that you can stage content from the Control screen in the Control Panel:

■ Staging content manually

Manual content staging is performed outside the actual running of the script using the Staging button on the Control screen. With this method, you can stage content per script for all media players, or by selected media players.

Note: Only Administrator and Event Operator roles can stage content manually. Venue operator roles cannot stage content this way.

■ Scheduling content staging

With this method, you can schedule content staging to occur at a specified number of minutes ahead of script start, or just before a script starts.

Staging Content Manually

Administrator / Event Operator

To stage content manually:

1. Go to **Event Management > Control Panel > Control.**

2. Select the script whose content you need to update on the media players.

3. Click **Staging**.

4. In the Staging screen, click the green arrow to start manual staging. The Start Manual Staging dialog box appears ().

Figure 69   Start Manual Staging Dialog Box

5. Select the target media players to receive the content updates. If you click "Selected DMPs configured in script," a list of available media players appears (Figure 70 on page 116).

Figure 70   Selected DMPs Configured in Script
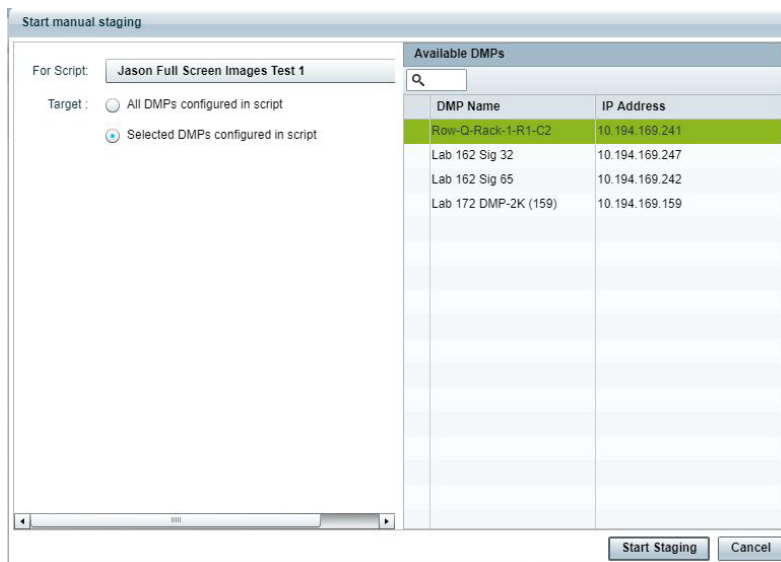
6. Select the available media players to receive the content updates.

7. Click **Start Staging.**

Scheduling Content Staging with Script Start

Administrator / Event Operator / Venue Operator

It is up to the user to determine how long before the script start to schedule staging. However, the script will not start until staging is complete, even if 0 minutes ahead of script start is configured.

For more information about running event scripts, see also the Running an Event Script from the Control Panel, page 160.

To schedule content staging with script start:

1. Go to **Event Management > Control Panel > Control**.

2. Select and start the script. The Start Script dialog box appears (Figure 71 on page 117).

Figure 71   Start Script Dialog Box

3. To delay the start of a script, specify the Start Time in: option.

4. To configure the staging options, do the following:

   a. Set Staging to Yes.

   b. In the Start Staging spinner box, specify the number of minutes ahead of the scheduled script start time to stage content to the media players.

      To run staging immediately before running the script, specify a value of 0. The script will not start until staging is complete.

5. Click **Start**.

How to Manage Content