Cisco StadiumVision Content Creation Design and Implementation Guide

Release 2.4

July 2012

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About this Guide…

This document serves as the master reference guide for creating content for the Cisco StadiumVision solution. It is intended for Cisco StadiumVision technical marketing engineers, product managers and the creative services delivery team to help customers prepare the graphics and content they want to deploy with Cisco StadiumVision.

Related Documentation

- *Cisco StadiumVision Headend Design and Implementation Guide*
- *Cisco StadiumVision Local Control Areas Design and Implementation Guide*
- *Cisco StadiumVision Video Endpoint (DMP) Design and Implementation Guide*

Document History

Table 1. Revision History

Date	Release	Comments
July 12, 2012	2.4.0-147	Revised the section "Cisco Unified IP Phone Services Image."
November 4, 2011	2.4.0-147	First publication.

Chapter 1   Screen Template Specifications
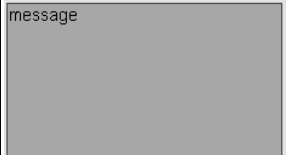
This chapter defines the screen templates supported for Cisco StadiumVision Director Release 2.4.
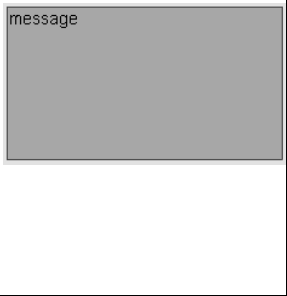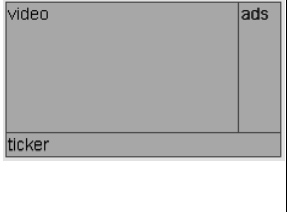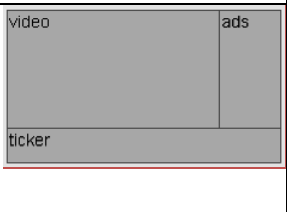
Default Screen Templates

Cisco StadiumVision Director includes default screen templates to make it easy to create event scripts. The dimensions for the default screen templates are fixed and cannot be changed. However, you can create custom screen templates where you specify different sizes for the screen template regions, and overlay screen templates where you have a non-video region overlapping a video region.

Table 2 defines the default screen templates that come with Cisco StadiumVision Director.

Table 2.   Default Screen Templates

Template Name	Content Type	DMP 4310G	DMP 4305G	Region Layout
3-REGION	Displays live video footage in Region 1, a playlist of advertisements in Region 2, and a ticker with scores or news in Region 3. Also referred to as an "L-wrapper"	Video: 1500 x 844 Ads: 420 x 844 Ticker: 1920 x 236	Video: 1066 x 600 Ads: 300 x 600 Ticker: 1366 x 168	video · ads · ticker
FULLSCREEN	Displays full-screen video or full-screen graphics.	Video: 1920 x 1080	Video: 1366 x 786	video
WELCOME	Displays a full-screen message or graphic (non-video)	Message: 1920 x 1080	Message: 1366 x 786	message

EXIT	Displays a full-screen Exit message	Message: 1920 x 1080	Message: 1366 x 786	
EMERGENCY	Displays full-screen emergency inside message	Message: 1920 x 1080	Message: 1366 x 786	
OUTSIDE-EMERGENCY	Displays full-screen outside emergency message.	Message (4310): 1920 x 1080 Message (4305): 1366x 786		
3-REGION-SINGLE	This is a variation of the 3-REGION screen template with a slightly shorter ticker region.	Video : 1624 x 914 Ads: 296 x 914 Ticker: 1920 x 166	Video: 1155 x 650 Ads: 211 x 650 Ticker: 1366 x 118	
3-REGION-DOUBLE	This is a variation of the 3–REGION screen template with a slightly taller ticker region.	Video: 1486 x 838 Ad: 434 x 838 Ticker: 1920 x 242	Video: 1057 x 596 Ads: 309 x 596 Ticker: 1366 x 172	

Template Resolutions

The default Cisco StadiumVision Director screen templates come in two pixel sizes or "resolutions": 1920 x 1080 and 1366 x 766. You need to choose and create screen templates based upon the resolution supported by your DMP. The DMP 4310G supports both 1920 x 1080 and 1366 x 768 resolutions. The DMP 4305G supports only the 1366 x 768 resolution. Regardless of the resolution of the attached TV, you can only use the 1366 x 768 screen templates with a DMP 4305G.

Full Screen Template

The full screen template that comes with Cisco StadiumVision Director is used to display full-screen video or full-screen graphics. Figure 1 shows an example of a graphic in the full screen template. This is a fixed screen template and cannot be customized.

Figure 1.   Full Screen Template

Standard Video with L-Wrapper Screen Template

The standard video with L-wrapper screen template that comes with Cisco StadiumVision Director is typically used to display live video footage in Region 1, a playlist of advertisements in Region 2, and a ticker with scores or news in Region 3. This is a fixed screen template and cannot be customized.

Table 3 lists the characteristics of the L-wrapper screen template.

Table 3.   Video with L-wrapper screen template characteristics

Region	Description
Region 1	• 16 X 9 aspect ratio. • Supports live video broadcasts in MPEG-4 (DMP-4310G) and MPEG-2 (DMP 4310G and DMP 4305G) format). For more details on video formats, refer to the *Cisco StadiumVision Video Headend Design and Implementation Guide*. •
Region 2	• Supports playlists of advertisements. • Due to the small dimensions of region 2, use graphic-intensive ads rather than copy-intensive ads in this region.
Region 3	• Designed for displaying a graphic and/or information in the form of a ticker. • The ticker content can be from a compatible RSS feed approved by the stadium. • The ticker region can be customized with the stadium logo (with the ticker content playing in the remaining space).

Table 4.   L-wrapper region dimensions

Content Type	DMP 4310G	DMP 4305G
Region 1: video Region 2: non-video Region 3: non-video	Region 1 : 1500 x 844 Region 2: 420 x 844 Region 3: 1920 x 236	Region 1: 1066 x 600 Region 2: 300 x 600 Region 3: 1366 x 168

L-Wrapper with a Single Height Ticker Screen Template

Figure 2 shows an example of the content for the L-wrapper with a single height ticker screen template that comes with Cisco StadiumVision Director. This is a variation of the standard video with L-wrapper screen template with a slightly shorter ticker region. This is a fixed screen template and cannot be customized.

Figure 2.   L-Wrapper with a single height ticker screen template

Table 5.   L-wrapper with single-height ticker region dimensions

Content Type	DMP 4310G	DMP 4305G
Region 1: video Region 2: non-video Region 3: non-video	Region 1 : 1624 x 914 Region 2: 296 x 914 Region 3: 1920 x 166	Region 1: 1155 x 650 Region 2: 211 x 650 Region 3: 1366 x 118

L-Wrapper with a Double Height Ticker Screen Template

Figure 3 shows an example of content for the L-wrapper with a double height ticker screen template that comes with Cisco StadiumVision Director. This is a variation of the L-wrapper screen template with a slightly taller ticker region. This is a fixed screen template and cannot be customized.

Figure 3.   L-Wrapper with a double height ticker screen template
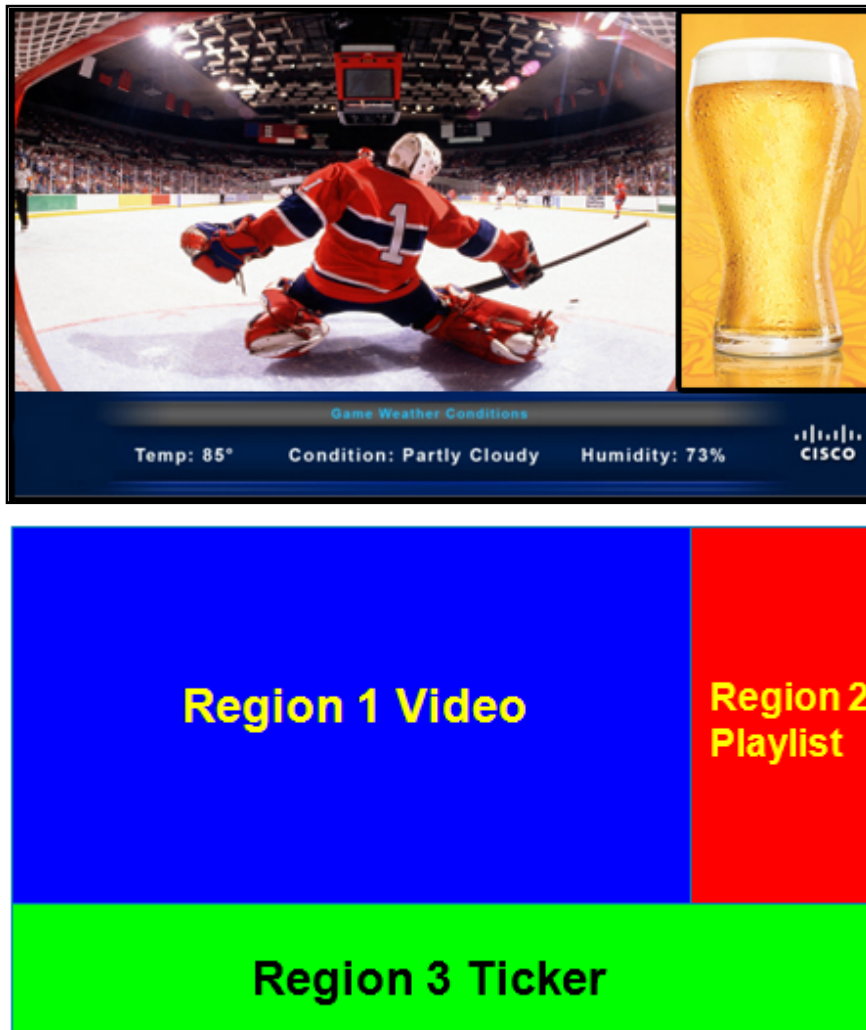
Table 6.   L-wrapper with double-height ticker region dimensions

Content Type	DMP 4310G	DMP 4305G
Region 1: video	Region 1: 1486 x 838	Region 1: 1057 x 596
Region 2: non-video	Region 2: 434 x 838	Region 2: 309 x 596
Region 3: non-video	Region 3: 1920 x 242	Region 3:1366 x 172

Custom Screen Templates

Cisco StadiumVision Director 2.4 supports custom screen templates, allowing you to change the size and arrangements of the regions on the screen to fit the sponsor/venue needs. Refer to Figure 4.

Figure 4.   Custom template
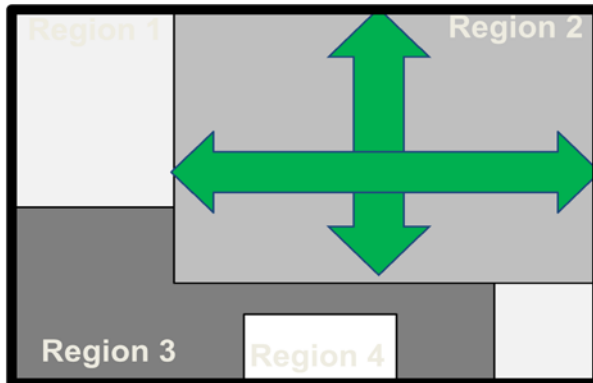
Rules for Custom Screen Templates

- You can have only 1 video region (always region 1).
- For the DMP 4310G, the sum of the regions should not exceed 1920 x 1080, unless you are using overlay, in which case you could have two regions that are both 1920 x 1080. For the DMP 4305G, the sum of the regions should not exceed 1366 x 768 (the DMP 4305G does not support overlaid graphics).
- Up to five regions are supported for each screen layout (e.g., a 5-region screen layout). A variable number is supported, but more than 5 will cause degradation.
- When creating custom templates, avoid the following:

  - multiple video regions
  - overlapping regions (unless you are using overlay)
  - too many regions causing performance problems

For details on how to create custom and overlay screen templates, see the *Cisco StadiumVision Content Creation Reference Guide*.

Overlay Screen Templates

The DMP 4310G supports graphics with transparency/opacity allowing a non-video region to overlap a video region. This overlay feature can be full screen or assigned to any region. Refer to Figure 6.

Note: The overlay screen template feature will only work on the DMP 4310G; it is not supported for the DMP 4305G.

Using the overlay feature you can display:

- A full-screen video region with a full-screen non-video content region overlaid on top.
- A brand/graphic overlaid in a small region of the screen.
- A ghosted brand/graphic such as a transparent logo where some of the colors in the logo are transparent and others are not.

The DMP 4310G uses the alpha-channel of the graphics plane (PNG, SWF file types). Therefore, content creators can use the alpha-channel to allow the background video to show through.

The recommended file format for graphics used in Overlay Graphic Templates are 8-bit or 24-bit PNG (alpha channel supported). If you plan to use the overlay feature, remember that JPG files have no transparency while PNG files have transparency. When you create the PNG file, you must make the pixels transparent for the full-size video region.

Note: The Global MIB Variable on the DMP needs to be changed to "Color Key Off" or you will not be able to create graphics with 00 Black (R:0 G:0 B:0) or anything black will appear transparent. Graphics always overlay video–you cannot put video over graphics.

For details on how to create an overlay screen template, see the *Cisco StadiumVision Content Creation Reference Guide*.

General Rules for All Screen Templates

When creating screen templates and populating content, consider the following:

- Regions can be used only for video or graphic content--not both. This is fixed for each screen template.
- There can be only one video region per template.
- Overlay screen templates are not supported on the DMP 4305G.
- For Proof of Play, you can have only one region with an ad playlist.

Chapter 2   Content Rules and Specifications for Release 2.4

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

Content Dimensions

The content dimensions will depend on whether the image will play in full screen mode or in one region of a multi-region screen template. If it is shown in full screen mode, the image should match the resolution of the graphics screen of the DMP:

DMP 4310G: 1920 x 1080

DMP 4305G: 1366 x 768

Here are some things to consider regarding content:

- If the content will be shown in a region of a multi-region screen template, it must match the dimensions of that region.
- You should only use the 1920 x 1080 screen templates on the DMP 4310G.

Video and Video Ad Formats

Cisco StadiumVision supports two types of video:

- Video from the head end (in-house terrestrial TV and satellite and cable providers, typically multicast).
- Video locally stored on the DMP and played through a Video Playlist.

Video from the Head End

The format of video provided from the head end is dependent upon the source. See the *Cisco StadiumVision Video Headend Design and Implementation Guide* for more details.

Table 7 defines the supported video and audio formats for full screen video stored locally on the DMP 4310G and played through a video playlist.

Table 7.   Supported Video and Audio Formats for localized video files on the DMP 4310G.

Format	Specification
Format	MPEG2 TS (Transport Stream)
Video Resolution (DMP 4310G)	1920 x 1080
Aspect Ratio	Widescreen 16 x 9 (1.0 Square Pixels)
Field Order	Progressive
Video Bit rate	20 Mbps
Video Bit rate Encoding	CBR (Constant Bit Rate) GOP Settings: • M Frames 3 • N Frames 15
Audio Format	MPEG
Audio Layer	MPEG-1, Layer II
Audio Mode	Stereo
Audio Sample Size	16 bit
Audio Frequency	48 kHz
Audio Bit Rate	128

Static Graphic Formats

Static graphics are used for advertisements or informational messages that do not require motion. This could include Welcome messages for luxury suites or directional information after an event. Static graphics are stored locally in Flash memory on the DMP. Table 8 lists the allowable formats for static graphics.

Table 8.   Static Graphic Formats

Graphic Format	DMP 4310G	DMP 4305G
Maximum file size per graphic	2 MB	200 KB
JPEG, non-progressive; (Resolution and Format: 72 dpi, 8-bit RGB)	Yes	Yes
JPEG, progressive	No	No
PNG 8 and 24	Yes	No
Animated GIF	No	No
Flash Player 7, Action Script 2.0 Support (recommended)	Yes	Yes

Rules for Static Graphics

• The maximum number of files you can import at one time is 100. Therefore, if you have a large number of graphic files to upload, place them in a zip file and upload the zip file. Otherwise, upload them in batches of 100 files or less. The total file size must be less than 100 MB.

- For vertical content, graphics and video are not rotated by the DMP. Therefore, they need to be created in a vertical format.
- Content file names can have "-" and "_", but not white space(s) and other special characters.

Flash Content

Flash content includes low-motion graphics that are used to enhance advertisements, welcome messages, menu boards or directional signage for crowds. This type of content is stored locally on the DMP.

Rules for Flash Content

- Flash content must be stored on the local DMP. Flash content stored on a web server, is not supported by Cisco StadiumVision Director.
- A Flash object must fit into the screen template region where it will be displayed. Therefore, you may need to resize and/or crop as necessary.
- Low motion Flash objects (files with a .swf file extension) must be created with ActionScript 2.0 running on Adobe Flash Version 7 or lower at 5-6 frames per second or less on the DMP 4305G or 12 frames per second or less on the DMP 4310G. On the DMP 4305G, only low motion small asset movement or image swapping is supported.
- When creating Flash animations do not use tweening, only create Flash Animations using ActionScript 2.0.
- You can have a maximum of 2 animated objects in a region 2 Flash advertisement.
- We advise testing on the Cisco StadiumVision Platform before final deployment .

Event States and Event Scripts

Event states and *event scripts* control when and what content displays over the course of an event. For example, a Welcome message for Pre-game, a food promotion at halftime and an Exit message at the end of the game. An *event state* is a period of time in which the group of screens will exhibit the same behavior e.g., the same screen template, playlists and channel. Event states can change over the course of time (Pre-Game, In-Game, Post-game etc).

Rules for Event States and Event Scripts

- Delay, Inside Emergency and Outside Emergency states are pre-built states with actions defined as part of the customization process for a venue. The names and actions assigned to these ad hoc event states cannot be changed. Also, they should not be deleted.

- Cisco StadiumVision uses the non-event state to put all non-event displays in full screen mode with a default channel (the channel customized for the venue) at the time of day configured in the Control Panel.
- When you start an event script, it takes a while for the system to settle. Therefore, wait at least 1 minute after the completion of the DMP loading sequence before you change to a different state.
- Do not change an event state more frequently than every 60 seconds. Since multicast messages are rebroadcasted every 30 seconds, you should wait for 2 rebroadcasts (60 seconds) to insure that all DMPs are switched to the current event state.
- When an event script only contains actions on a Group, but not on the enclosing Zone, the DMPs in the enclosing Zone will not be controlled by the event script.
- If there is no screen template or action assigned to a DMP and the DMP reboots, the TV will automatically be tuned to full screen video and display the default channel. Also, if a DMP misses the prior multicast state transition and the event state does not contain a screen template, it may display the wrong screen template. To avoid this situation, keep the DMP in an event state that has an assigned screen template action, or an event state whose predecessor has an assigned screen template action.

Table 9 lists the tested limits for deploying event scripts and event states.

Table 9.   Tested Limits for Event Scripts and Event States

Specification	Limit
Maximum items per playlist	1200
Maximum of items per event script	2200
Maximum event states per event	100

Groups and Zones

Groups and *zones* allow you to apply attributes to a number of screens with a single action. They simplify the control of advertisements in sponsored areas of the stadium, enabling all the screens in a sponsored zone to have the same branded messages, the same playlists, and the same video content.

Group and zone associations can be made any time prior to writing an event script and can be used for multiple events.

Table 10 defines the limits for deploying groups and zones.

Table 10.   Limits for Deploying Groups and Zones

Specification	Limit
Max number of zones	100
Max number of groups	500
Max number of groups per zones to be supported	20
Max number of templates you can have in different groups and zones for a single event state	50

Rules for Groups and Zones

- The more groups and zones you have, the more complicated the deployment becomes.
- To simplify the deployment, keep the number of unique advertising areas, exit directions, and welcome screens to a minimum.
- While it is possible for a zone to have different screen templates throughout the course of an event, the more screen templates you use, the more complex the deployment and administration becomes. To simplify the system management, limit the number of screen templates for a given zone.
- A DMP can be in different zones during each event state.
- A DMP that is in multiple zones and groups cannot have more than one action assigned to it for a given event state.
- A DMP can be in only one group at a given state. However, a DMP can switch groups when in a different event state.
- The maximum number of groups that is supported for a zone is 20; however, typically you'll have three or four groups for a given zone.
- The maximum number of zones supported in a venue is 100; however, 20 zones is typical for a given venue.
- The background for an RSS ticker can change per group/zone.
- All zone and group names must be unique.

Playlists

A *playlist* is a series of content items connected together (images, flash) to play for a set duration one-after-the-other in a given region and then repeat. Each playlist operates independently of other playlists, and multiple playlists can be run in a given event script. The most common use of a playlist is in a flash region where a series of ads will cycle based upon a preset rotation. Playlists also can include tickers and full screen messages.

[Figure 5](#) illustrates a playlist with five images, each shown for five seconds and then repeating.

Figure 5.   **Playlist**
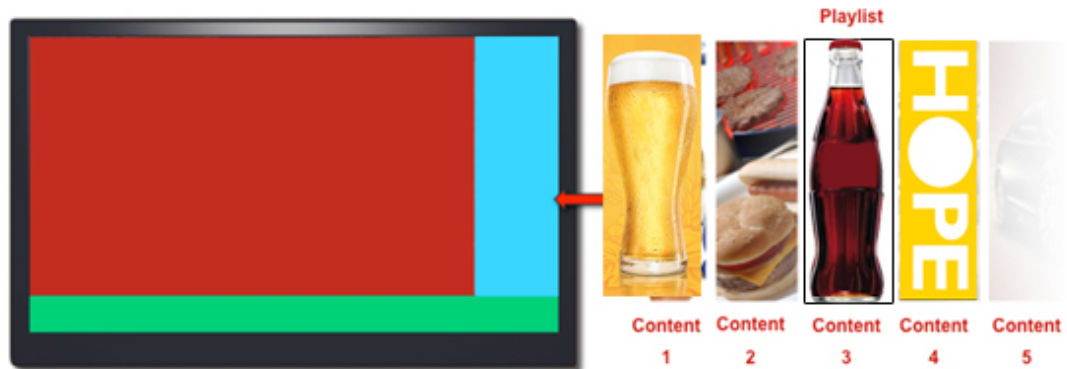
Rules for Creating Playlists

When creating playlists, consider the following:

- Advertisements with long filenames impact the number of total files you can have in the playlist. As a best practice, the filename for each ad file should not have more than 20 characters.
- If the name of the content contains a space, Proof of Play will not recognize it.
- You cannot have playlists with the same name.
- For Proof of Play, you can have only one region with an ad playlist.
- Only Flash and static graphics are supported in a playlist. Video is only supported in a Video Playlist (see Video Playlist section)
- Once a playlist displays the last ad in the list, it will loop back to the beginning of the playlist.
- The playlist ad rotation time must be the same for all ads for a given playlist.
- The recommended ad rotation time is 30 or 60 seconds for all ads. As a Best practice we recommend you set your playlists for 15 or 30 seconds per ad. Note: All playlists from all zones/groups for a given event must be loaded on every DMP prior to the event.
- On the DMP 4310G, the entire playlist in the event script cannot exceed 200 MB for a given DMP. On the DMP 4305G, the entire playlist in the event script cannot exceed 160 MB for a given DMP.
- Each playlist may 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.
- Multiple playlists can be configured to run sequentially on the same Cisco DMP.

Table 11 lists specifications for creating playlists.

Table 11.   Specifications for creating Playlists

Specification	DMP 4310G	DMP 4305G
Maximum number of playlists (any type) in the entire Cisco StadiumVision Director content database	1000	1000
Maximum number of items of content (any type) used in the entire Cisco StadiumVision Director event	2200	2200
Maximum number of items per playlist	1200	1200
Maximum aggregated playlist size:	200 MB *(hard limit of SDRAM size 28 GB)	160 MB (hard limit of SDRAM size 1.8 GB)
Maximum length of playlist name	22	22
Maximum playlist per group	100	100

RSS Tickers

A *ticker* is a Flash region that displays information received from an RSS feed (news, weather, or other dynamic information) over a customizable background. RSS feeds can come from external or internal sources. Venue operators can use RSS feeds to publish their own in-house promotions or other proprietary messaging.

The source for the ticker can be multiple RSS feeds, but they are all aggregated into one ticker stream. Therefore, all screens with a ticker will show the same information.

The feeds from multiple sources are interleaved in the ticker until one source runs out of new content. Then, only the feed from the remaining source is displayed. When both run out, the ticker starts over at the beginning. In addition, the interleave ratio is established before the approved status is checked. Therefore, approval status may change the ratio.

Each RSS ticker headline can be approximately 100 characters long given variable width fonts and the standard ticker layout. The standard ticker truncates to 1 row of 45 characters; however, you can create a ticker on multiple lines that uses up to 100 characters.

The aggregated ticker stream is updated every 30 seconds. Ticker updates are sent to the screens that employ a ticker approximately every 3-5 minutes via IP Multicast.

Ticker backgrounds are Flash files (.swf) that are stored as content in Cisco StadiumVision Director.

Figure 6 shows an example of a double-height RSS ticker feed.

Figure 6.   Double Height RSS Ticker Feed

Supported RSS Ticker Formats

The following formats are supported for RSS tickers:

- RSS 0.90
- RSS 0.91 Netscape
- RSS 0.91 Userland
- RSS 0.92
- RSS 0.93
- RSS 0.94
- RSS 1.0
- RSS 2.0
- Atom 0.3
- Atom 1.0

Rules for RSS Feeds

- The aggregated ticker stream is updated every 30 seconds or the refresh rate specified in Cisco StadiumVision Director. Ticker updates will be sent every 3-5 minutes via IP Multicast to the screens that employ a ticker.
- Rotating ads not supported in the ticker region (region 3).
- If the total RSS data exceeds the character limit of 5000 characters (approximately 40 RSS headlines) the ticker headline is truncated.
- Real-time ticker updates (for example, balls and strikes, down and distance or the clock) are not recommended.

Table 12 lists limits for deploying RSS Tickers.

Table 12.   Limits for Deploying RSS Tickers

Specification	Limit
Max frame rate (DMP 4310G)	12 fps
Max frame rate (DMP 4305G)	5 fps
Max message size	15822 bytes
Max characters for a RSS ticker headline	100
Max characters for RSS ticker data	5000

Max number of aggregated ticker streams per deployment	1
Default ticker refresh rate	30 seconds
Ticker update rate via IP Multicast	3-5 minutes

Rules for Customizing the Ticker

The background color of the ticker (region 3) can be changed and a logo can be included. The background is a Flash file (.swf). Cisco StadiumVision provides sample files for use with the preset screen templates.

For custom templates, you will need to create a new Flash file according to the ticker specification. The text size and logo size will also need to be adjusted accordingly.

When creating tickers and assigning them to screen templates, consider the following:

- Ensure that the dimensions of the .swf file for the RSS ticker background match the dimensions of the ticker region specifications. Refer to Table 16.
- When including a logo in the ticker background, embed the logo to the side away from a specified text screen. Sizes of logos can vary as long as the logo fits to the side of the text screen on the ticker.
- The background for an RSS ticker can change per group/zone.
- For the ticker logo, create your background per the dimensions of the ticker in either Illustrator or Photoshop.
- Embed the logo to the side away from a specified text screen (this is where the text of your ticker will populate: the grey/black area of the ticker background).
- Sizes can vary for the logos so long as the logo fits to the side of the text screen on the ticker.
- Tickers that run on the 4310 should have a frame rate of 12 fps whereas tickers that run on the 4305 should have a frame rate of 5 fps.

Table 13 defines the file names, sizes, and specifications for the sample Cisco StadiumVision RSS ticker files.

Table 13.   Sample Ticker Files

DMP Model	Template	Filename	Dimensions	Text Size	Logo Size
4310	L-wrapper	sv2_ticker_1920_236_L-Wrapper	1920 x 236	50 pt	~166 x 115
	Single-height	sv2_ticker_1920_166_singleheight	1920 x 166	50 pt	~151 x 114
	Double-height	sv2_ticker_1920_242_doubleheight	1920 x 242	50 pt	~166 x 146
4305	L-wrapper	sv2_ticker_1366_168_L-Wrapper	1366 x 168	44 pt	~115 x 74
	Single-height	sv2_ticker_1366_118_singleheight	1366 x 118	42 pt	~110 x 79
	Double-height	sv2_ticker_1366_172_doubleheight	1366 x 172	44 pt	~112 x 126

For details on how to customize tickers for a given venue or event, see the *Configuring Tickers* feature guide.

Graphic Specifications for Local TV Control and Commerce Integration

Table 14 defines specifications and locations for creating and storing graphics (or images) used for local TV control and commerce integration in luxury suites.

Table 14. Local TV control and commerce integration graphics specifications

Graphic	Location	Specifications
IP Phone Desktop background	CUCM	Supplied with Cisco StadiumVision Director IP Phone 7975: 320x216x16 IP Communicator: 320x212x12
Welcome Message example	Cisco StadiumVision Director	Supplied with StadiumVision Director DMP 4310: 1920x1080 DMP 4305: 1366x768
Channel icons used in channel lineup on the IP Phone	Cisco StadiumVision Director	Must be supplied locally with network approval. IP Phone: 24x24, PNG 3rd party: 40x40, PNG
Team logo used in channel lineup on the TV	Cisco StadiumVision Director	Must be supplied locally. DMP 4310: 300x180, PNG or JPEG DMP 4305: 218x128, JPEG
Food, beverage, and merchandise images used in the ordering process	Quest or Micros	Must be supplied locally. 265x265, JPEG non-progressive

TV Channel Guide Content Formats

The TV channel guide is a Flash file that is displayed on the TVs in luxury suites, bars, clubs and restaurants. If desired, this guide can include a venue or team logo in the upper left corner.

Note: Channel icons are not supported on the TV channel guide.

The logo must be stored in the Cisco StadiumVision Director content repository using a specific keyword tag. Then, when the channel guide is displayed, the Flash application pulls in the graphic with this file name and places it at the upper left of the screen.

The size, file type, and required keyword tag of the logo depends on whether the venue is using the DMP 4305G or DMP 4310G. Refer to Table 15.

Table 15.   Logo formats for the TV Channel Guide

DMP Model	Resolution	File Type	Keyword Tag
DMP 4310G	300x180	PNG or JPEG	Icon_Team_4310_SYS
DMP 4305G	218x128	JPEG	Icon_Team_4305_SYS

See the *Cisco StadiumVision Content Creation Reference Guide* for information on using logos in the channel guide.

Cisco Unified IP Phone Channel Icons

You can use Cisco StadiumVision Director to associate channel icons for display on the Cisco Unified 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.

See the *Cisco StadiumVision Content Creation Reference Guide* for more information about adding logos and assigning channel names to the phone channel guide.

Cisco Unified IP Phone Services Image

Cisco StadiumVision provides a background image (homeBg.png) which is used as the background for the services on the Cisco Unified IP Phone. This is included with the default images. Default images are located at:

/opt/sv/servers/config/webapps/StadiumVision/images/phone/phone/phoneImages

The resolution for the phone services image is 298 x 168.

Figure 7.   Default Services Image
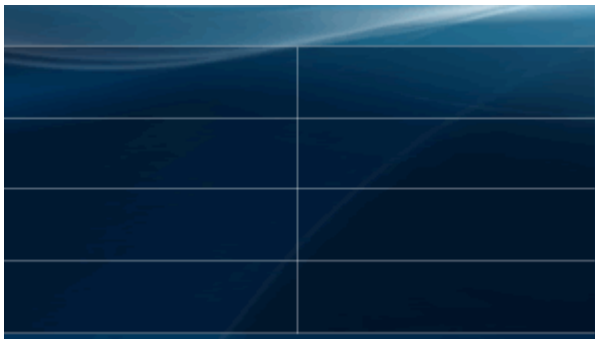
To customize the phone services image, create a background graphic saved out in the .png format and name it BG.png. Your customized image now needs to be stored at:

/var/sv/phone/phone/phoneImages

To load the custom image you will need an FTP Client (FileZilla, etc) and you will also need a SNE TAC log-in account to access this area (which is currently only available to Cisco Employees).

StadiumVision will first look for a customized image, if one is not found then it will use the default image.

Cisco Unified IP Phone Background Image

Cisco StadiumVision Director includes phone background images (download/cucmitems.zip) that need to be uploaded to CUCM. There are two images (one for the Cisco Unified IP Phone 7975 and one for the Cisco IP Communicator).

The resolution for the phone background image is 320 x 216 x 16 pixels. Up to eight phone background images (in PNG format) can be loaded in to CUCM.

You can customize the phone background image by including a logo that can be changed for a particular venue or event. The logo should be centered in a space that measures 146 x 70 approximately 10 pixels from the bottom of the desktop image, as illustrated in Figure 8.

Figure 8. Logo placement on the phone background image

PNG File Specifications for Custom IP Phone Background Images

Each phone background image requires two PNG files:

- Full size image—Version that appears on the phone.
- Thumbnail image—Version that appears on the Background Images screen from which users can select an image. Must be 25% of the size of the full size image.

Tip: Many graphics programs provide a feature that will resize a graphic. An easy way to create a thumbnail image is to first create and save the full size image, then use the sizing feature in the graphics program to create a version of that image that is 25% of the original size. Save the thumbnail version using a different name.

The PNG files for background images must meet the following specifications for proper display on the Cisco Unified IP Phone:

- Full size image—320 pixels (width) X 216 pixels (height).
- Thumbnail image—80 pixels (width) X 53 pixels (height).

- Color palette—Includes up to 16-bit color (65535 colors). You can use more than 16-bit color, but the phone will reduce the color palette to 16-bit before displaying the image. For best results, reduce the color palette of an image to 16-bit when you create a PNG file.

Tip: If you are using a graphics program that supports a posterize feature for specifying the number of tonal levels per color channel, set the number of tonal levels per channel to 40 (40 red X 40 green X 40 blue = 64000 colors). This is as close as you can posterize to 65535 colors without exceeding the maximum.

Creating a Custom Background Image for the Cisco Unified IP Phone

For more information, see the "Customizing the IP Phone" section of the Cisco Unified IP Phone Administration Guide for the Cisco IP Phone 7975G at:

http://www.cisco.com/en/US/products/hw/phones/ps379/prod_maintenance_guides _list.html

Also refer to the *Cisco StadiumVision Local Control Areas Design and Implementation Guide*.

Luxury Suite Welcome Screen Graphics

Some venues may want to customize the welcome screens in luxury suites. This is particularly useful for suites that are not owned by a single person or group but are rented out to different groups on an event-by-event basis.

Cisco StadiumVision Director provides two example welcome message graphics in Adobe Photoshop format:

- Welcome_SV2-1366-template.psd is for use with the DMP 4305G.
- Welcome_SV2-1920-template.psd is for use with the DMP 4310G.

These sample graphics can be used "as-is" in luxury suites to help guests understand that the phone is used to control the TVs. This graphic can also be modified to include a customized greeting.

When customizing this image, the logo or greeting should have a transparent background and should be centered in the blank space on the right side of the image, as illustrated in Figure 9.

Figure 9.   Custom Greetings on the Welcome Screen

The recommended best practice for implementing customized greetings on the welcome screen is to use the Cisco StadiumVision full screen graphic template as a basis for creating a separate image with a logo or greeting added.

Load this image as content into Cisco StadiumVision Director and create a script to display the image on the designated "Welcome" TVs, as described in the *Cisco StadiumVision Local Control Areas Design and Implementation Guide*.