



StadiumVision Content Creation & Design Guide

Cisco StadiumVision – What is it?

End-to-end experience delivery platform

- StadiumVision is a proven, end-to-end, high-definition IPTV solution that provides advanced video/content management and delivery.
- It is a centrally-managed, video processing and distribution solution that enables the integration and automated delivery of customized and dynamic content from multiple sources to different areas of the stadium.
- StadiumVision is purpose-built for sports and entertainment venues, which have extensive video systems deployed throughout.
- It is designed to enhance the viewing of live events

**It is a content driven, revenue generating, feature rich:
"Venue Advertising Network".**

StadiumVision and Content

StadiumVision Director can support and display different types of media providing our clients with many options to enhance the fan experience and provide a robust advertising platform for the team, sponsors and advertisers.



The difference between a successful StadiumVision system and an unsuccessful StadiumVision system is...

CONTENT.

StadiumVision Templates

Content Creation Guidelines: SVD Templates

StadiumVision Director provides the capability to create custom templates, allowing you to customize the size and arrangements of the regions on the screen. You can also create “overlay” templates that allow a non-video template region to overlap a video template region (DMP 4310G).

The following templates are supported for release 2.3:

Fullscreen Template

Standard Video L-Wrapper Template

L-Wrapper with Single Height Ticker

L-Wrapper with Double Height Ticker

Custom Templates

Overlay Templates

Content Creation Guidelines: Full Screen Templates



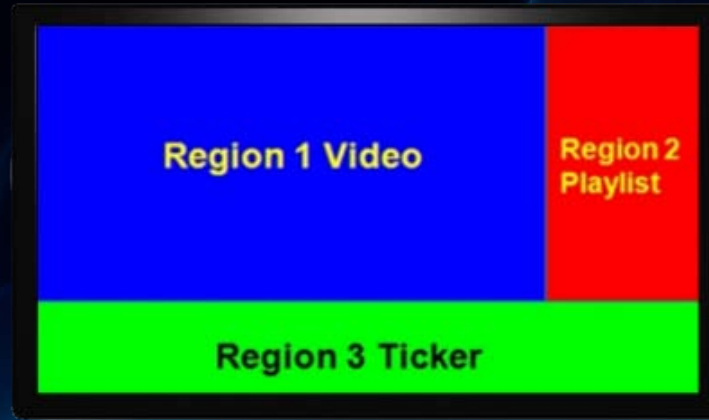
Full Screen Template 1920x1080:

The full screen template is used to display full-screen video or full-screen graphics. Here is an example of a full-screen graphic. This is a fixed template and cannot be customized.

Resolution: 1920x1080 @ 72 DPI

Graphic Format: 8 Bit PNG

Content Creation Guidelines: L-Wrapper w/ Single Height Ticker



L-Wrapper with a Single Height Ticker

Here is an example of the content for the L-wrapper template with a single height ticker. This is a variation of the standard video with L-wrapper template with a slightly shorter ticker region. This is a fixed template and cannot be customized.

Resolution: 1920x1080 @ 72 DPI

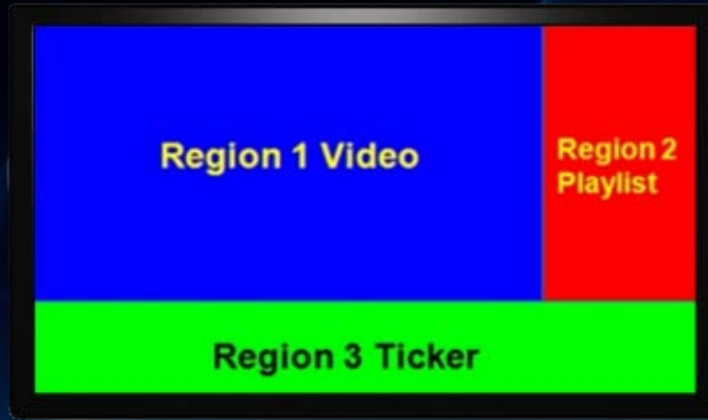
Graphic Format: 8 Bit PNG

Region 1 : 1624 x 914 (Video)

Region 2: 296 x 914 (Non-Video)

Region 3: 1920 x 166 (Non-Video)

Content Creation Guidelines: L-Wrapper w/ Double Height Ticker



L-Wrapper with a Double Height Ticker

Here is an example of content for the L-wrapper template with a double height ticker. This is a variation of the L-wrapper template with a slightly taller ticker region. This is a fixed template and cannot be customized.

Resolution: 1920x1080 @ 72 DPI

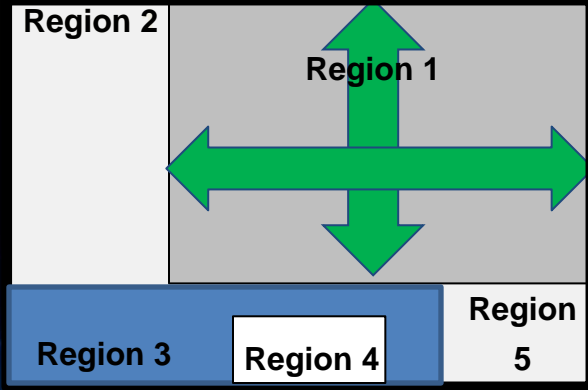
Graphic Format: 8 Bit PNG

Region 1 : 1486 x 838 (Video)

Region 2: 434 x 838 (Non-Video)

Region 3: 1920 x 242 (Non-Video)

Content Creation Guidelines: Custom Templates



Custom Templates

StadiumVision Director 2.3 supports custom templates, allowing you to change the size and arrangements of the regions on the screen to fit the sponsor/venue needs. Up to 5 regions can be created. Note: Region 1 is always the video region.

Rules for Custom Templates

1. You can have only 1 video region (always region 1).
2. Custom templates do not support proof of play.
3. 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.

When creating custom templates, avoid the following:

- Multiple video regions
- Overlapping regions (unless you are using overlay)
- Too many regions causing performance problems

Content Creation Guidelines: Overlay Templates

Overlay Templates

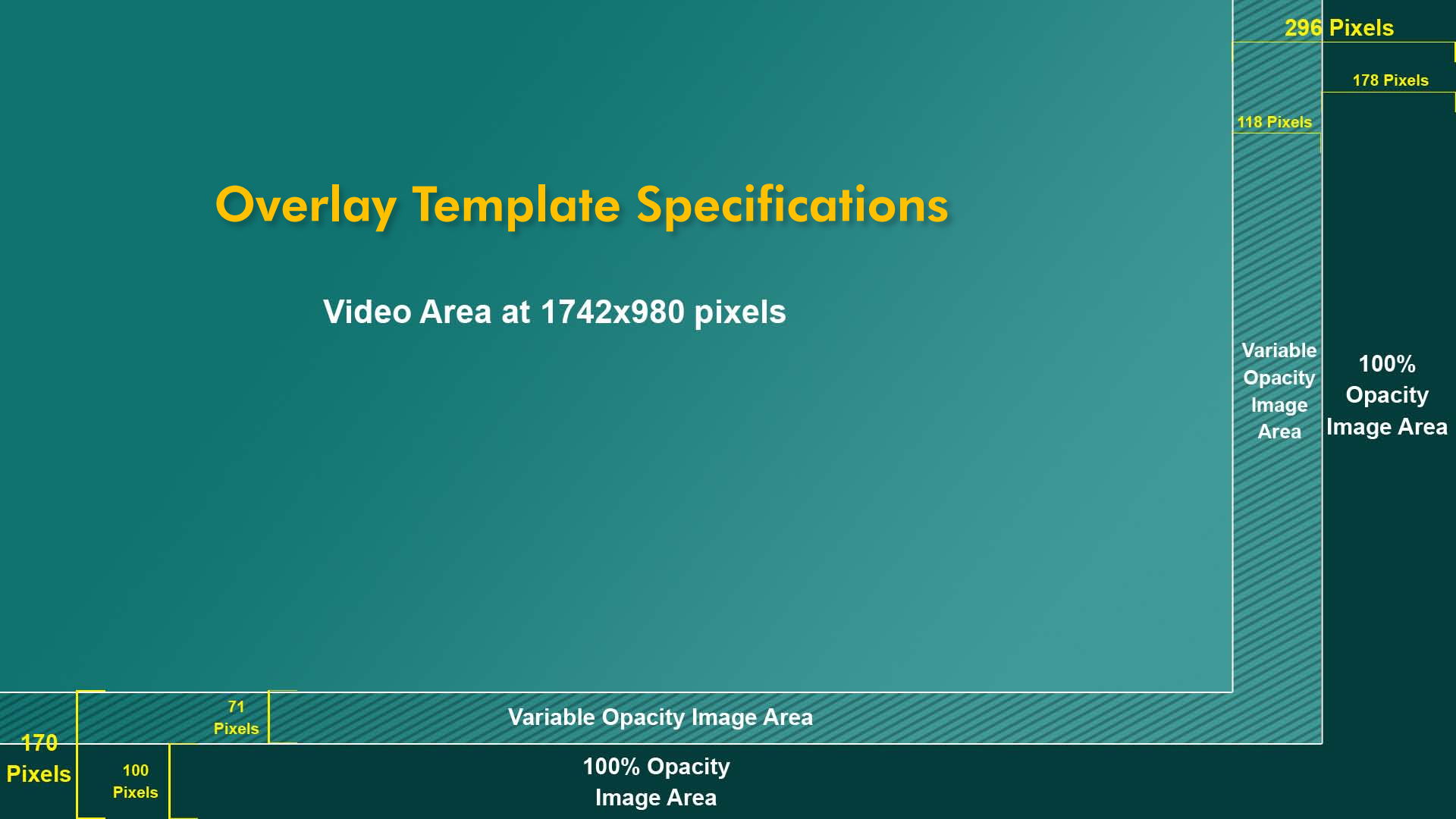
The DMP 4310G supports graphics with transparency allowing a non-video region to overlap a video region.

Resolution: 1920x1080 @ 72 DPI

Graphic Format: 8 Bit PNG (alpha channel supported)

Overlay Template Specifications

Video Area at 1742x980 pixels



Content Creation Guidelines: Templates

General Rules for All Templates

1. Regions can be used only for video or graphic content--not both. This is fixed for each template.
2. There can be only one video region per DMP/TV.
3. 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.
4. You should only use the 1920 x 1080 templates on the DMP 4310G.

Flash Content

Content Creation Guidelines: Flash Content

General Rules for Flash Content

1. A Flash object must fit into the screen template region where it will be displayed.
2. 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 12 frames per second or less on the DMP 4310G. Only low motion small asset movement or image swapping is supported.
3. When creating Flash animations do not use tweening only create Flash Animations using ActionScript 2.0.
4. You can have a maximum of 2 animated objects in a region 2 Flash advertisement.
5. We advise testing on the StadiumVision Platform before final deployment.

Video Specifications and Video Playlists

Content Creation Guidelines: Video Formats

Video from the Head End

Supported Video and Audio Formats for Full Screen Video

Video Settings:

Format: MPEG2 TS (Transport Stream)

Resolution: 1920x1080

Aspect Ratio: Widescreen 16x9 (1.0 Square Pixels)

Field Order: Progressive

Bitrates: 20 Mbps

Bitrate Encoding: CBR (Constant Bitrate)

GOP Settings: M Frames 3, N Frames 15

Audio Settings:

Audio Format: MPEG

Audio Layer: MPEG-1, Layer II

Audio Mode: Stereo

Sample Size: 16 bit

Frequency: 48 kHz

Bitrate: 128

Content Creation Guidelines: Video Playlists

Video Settings:

Format: MPEG2 TS (Transport Stream)

Resolution: 1920x1080

Aspect Ratio: Widescreen 16x9 (1.0 Square Pixels)

Field Order: Progressive

Bitrate: 20 Mbps

Bitrate Encoding: CBR (Constant Bitrate)

GOP Settings: M Frames 3, N Frames 15

DMP Video Storage Specs

Total Video Storage: 20 GB

Maximum size each video file: 2GB

Audio Settings:

Audio Format: MPEG

Audio Layer: MPEG-1, Layer II

Audio Mode: Stereo

Sample Size: 16 bit

Frequency: 48 kHz

Bitrate: 128

Content Creation Guidelines: Video Playlists

Rules for Video Playlists

1. Content Loading: All video content must be loaded via VDM to each individual DMP that will be included in a video playlist.
2. Currently in SVD 2.3 only 100 DMP's at any given time should be used with video playlists.
Background
3. Maximum File size per video is 2GB.
4. Maximum video storage on an individual DMP is 20GB.
5. If a single video is in a playlist it will continually loop while that playlist is actively playing.
6. If multiply videos are in a playlist they will play through each video in the order they were set in the playlist and when the finial video finishes it will loop back to the first video.
7. "Proof of Play" is supported for Video Playlists.

Event States & Event Scripts

Content Creation Guidelines: Event States & 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 examples: Pre-Game, In-Game, Post-game, etc.

Event Script example: Football Script, Concert Script

Event States & Event Scripts Specifications

Maximum items per playlist:	1200
Maximum items per event script:	2200
Maximum event states per event:	50

Content Creation Guidelines: Event States & Event Scripts

Rules for Event States & Event Scripts

1. 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.
2. 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.
3. 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.

Content Creation Guidelines: Playlists

When creating playlists, consider the following:

1. As a best practice, the filename for each ad file should not have more than 20 characters.
2. If the name of the content contains a space, it will not be recognized.
3. You cannot have playlists with the same name.
4. For Proof of Play, you can have only one region with an ad playlist.
5. Only Flash, static graphics and videos are supported in a playlist.
6. Once a playlist displays the last ad in the list, it will loop back to the beginning of the playlist.
7. The playlist ad rotation time must be the same for all ads for a given playlist.
8. The recommended ad rotation time is 30 or 60 seconds for all ads.
9. All playlists from all zones/groups for a given event must be loaded on every DMP prior to the event.
10. Content in the playlist is displayed in the order in which it is added unless you re-order your content.

RSS Tickers

Content Creation Guidelines: 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.
- When the content ends, the ticker starts over at the beginning.

Content Creation Guidelines: RSS Tickers

List Limits for Deploying RSS Ticker

Max frame rate (DMP 4310G):	12 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

Content Creation Guidelines: RSS Tickers

Rules for Customizing the Ticker

1. The background color of the ticker (region 3) can be changed and a logo can be included.
2. The background is a Flash file (.swf). StadiumVision provides sample files for use with the preset screen templates.
3. 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.
4. Tickers that run on the 4310 should have a frame rate of 12 fps
5. Font Size 50 pts

Luxury Suite Content

Luxury Suite Content: IP Phone



CISCO IP PHONE 7965 BACKGROUND IMAGE

Full size image—320 pixels (width) X 212 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 the PNG file.

Luxury Suite Content: IP Phone



You can use 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.

Luxury Suite Content: IP Phone



1. Start with an Illustrator or EPS version of the logo (If this format is not available then use the most high-res version available)
2. Create a 24x24 template in Photoshop with a transparent background.
3. Resize each logo to fit centered in the 24x24 template
4. When saving use: "Save for web and Devices" Needs to be a PNG-8. Make sure in the "No Transparency" dropdown you select "Diffusion Transparency Dither" and then "Save" as a "Images Only" (PNG).

Luxury Suite Content: TV Channel Guide



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. The logo must be stored in the 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.

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

Logo Specification: DMP 4310G 300x180

PNG or JPEG

Icon_Team_4310_SYS

Luxury Suite Content: Welcome Message



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.

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

Questions:

Q1: What is the FPS (frames per second) of all Flash animations or RSS tickers in SVD?

A1: 12 FPS (frames per second)

Q2: What file type is the recommended file type for all the graphics used in SVD?

A2: 8 bit PNG or PNG

Q3: What is the fullscreen resolution of all graphics created for SVD?

A3 1920 x 1080



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