



# Overview of the Dynamic Menu Board

The DMB is a subsystem within Cisco Vision Director that allows you to add your own menu content for display in a menu board. The DMB menu themes support background graphics and both textual and graphical content depending on the predefined format for the selected theme and layout.

The new Cisco Vision Director HTML user interface allows you to quickly upload design menu content (images and video), create Menu Themes in the Data Integration interface, use the Designer Widget tool to preview your designs, and deploy them to a screen to check the output—all using Cisco Vision Director.

**Note:** When upgrading to the current release, all your previous menu graphics will be migrated into the **Asset Library** in a folder in the **Workspace** tree called **DynamicMenuBoard**. If a folder of that name already exists, Cisco Vision Director will append the folder name with 1, 2, and so on, to accommodate all of your menu image content.

While you can add items to a menu independently, or you can link to items that are already defined in Cisco stores in Cisco Vision Director, you need to decide whether you want to use a Store or Theme to implement as your data source for a menu board. The benefit of linking to items in a store is that you can make a change within the store, such as hiding a menu item or changing its price, and populate the change across all menus that are appropriately configured with a link to that item.

As you create a menu widget, you can preview what the menu will look like as you add and change menu items. You can deploy the menu to a DMP as you would any other Cisco Vision content, using the standard method of playlist and script creation using templates.

This module includes the following topics:

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## Prerequisites for the DMB

Before you use the DMB application, be sure that the following requirements are met:

- Be sure that you have a supported browser. Check the [Release Notes](#) for your version of Cisco Vision Director for browser details.
- You have a Cisco Vision Director user account that is configured for an administrator or concessionaire role.

- Store items have been defined in the DMB application for linkage to menu themes (as required).

## Restrictions for the DMB Application

Before you use the DMB application, consider the following restrictions:

- The formatting of areas in a menu for headers and items, textual versus graphical elements, and font type and size, are not configurable within the DMB itself. This level of formatting is defined in the widget designer. The Administrator can upload Fonts using the Software Manager interface.
- Concessionaires cannot upload content to the **Asset Library**. Content must be uploaded by users with permission.

## Advantages of the DMB

The Cisco Vision Director DMB Application provides the ability to dynamically update menu items and pricing before and during an event. Using the Dynamic Menu Board you can do the following:

- Allow food and merchandise operators within a venue to create and update menu boards by having an administrator assign the concessionaire role to limit access to just the DMB application in Cisco Vision Director. While concessionaire users can associate new images for menu items or theme background, the Content Manager (or Administrator) has the ultimate control in uploading those images.
- Manage user access by specific concessionaires to certain menu board themes.
- Create and display a menu board with background graphics, headers, and menu items from themes and layouts that can be updated by a concessionaire during an event.
- Use a menu board for local messaging and communication, such as for meetings or game schedules.
- Group DMPs to use the same menu theme so that all DMPs in the same group display the same menu. In this way, DMP groups can be split by concession type while also being subdivided by levels of the venue. You can create two menu board showing the same menu items but with different background images to add a level of customization.
- Simultaneously change the menu board of an individual concession stand or multiple concession stands during an event.
- Hide menu items as needed (such as when sold out) during an event.

## Cisco Vision Director DMB Architecture Basics

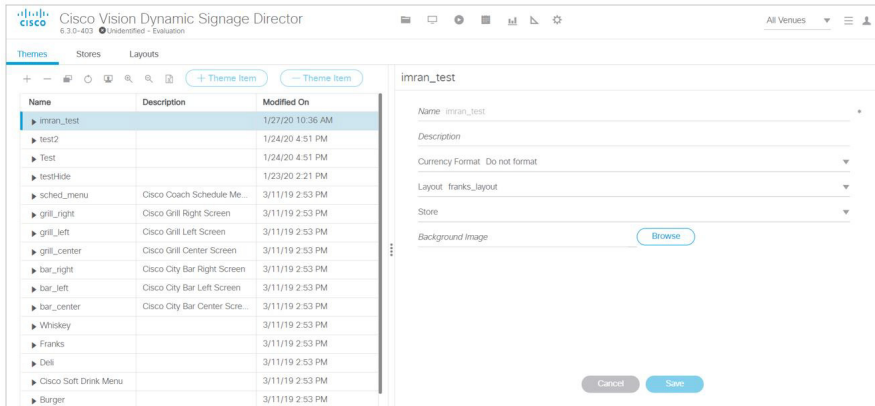
The Asset Library of Cisco Vision Director provides a repository of digital content. It manages image files that can be used in themes, stores, and in widgets.

Cisco Vision Director software includes a WYSIWYG designer for creating widgets. A widget can include images and text items. In the simplest case, you can implement a static menu board by creating a standalone widget that does not rely on themes and stores. In typical deployments, menu contents dynamically change. This is where the widget's powerful support for associating (or binding) widget components, such as text or graphics, to a data source comes in to play. Data binding is made possible due to the application's data integration capabilities.

Cisco Vision Director software provides a data integration subsystem that allows you to define a data source and selectively choose, and possibly transform, data that you want to consume in the widget. A menu theme or store is one of the many data source types supported by Cisco Vision Director.

To access the Dynamic Menu Board interface in Cisco Vision Director, click **More > Dynamic Menu Board** from the top right. The screen displays (Figure 1 on page 11).

**Figure 1 Dynamic Menu Board Interface in Cisco Vision Director**



Use the Dynamic Menu Board to configure the menu board layout, themes, and stores. Use the Cisco Vision Director Asset Library to select widgets to prepare the DMB items for inclusion in a playlist.

The event script controls the start/stop of a menu board widget and what area of the display it uses. The menu widget will typically be configured to fetch (or pull) the menu board text elements, such as the menu item names and menu item prices, from Cisco Vision Director.

## Role-Based Access Control

Cisco Vision Director uses role-based access control (RBAC) to determine which software functions are accessible by users. [Table 1 on page 11](#) describes the related DMB functions that can be performed by user accounts with the assigned roles.

**Table 1 RBAC Permissions for Related Dynamic Menu Board Functions**

Role	Permissions	Related Dynamic Menu Board Functions
Administrator	<ul style="list-style-type: none"> <li>Access to all functions in Cisco Vision Director</li> <li>Access to all functions in the DMB application</li> </ul>	<ul style="list-style-type: none"> <li>Configures integration with menu theme or store data sources</li> <li>Creates stores for the menu items</li> <li>Creates menu board widget</li> </ul>
Concessionaire <b>Note:</b> cannot upload new content	<ul style="list-style-type: none"> <li>Access to certain functions in the DMB application</li> </ul>	<ul style="list-style-type: none"> <li>Creates and updates menu themes</li> <li>Creates stores only</li> </ul>
Content Manager	Access to functions in Cisco Vision Director to configure event states/scripts, zones, groups, screen templates, playlists, and tickers	<ul style="list-style-type: none"> <li>Manages image content for use in themes, stores, and in widgets</li> <li>Creates event scripts with DMB application instances to be played by DMPs for concessions</li> <li>Creates menu board widgets</li> </ul>

## Dynamic Menu Board Components

The Dynamic Menu Board references the following related components to create a Dynamic Menu Board application instance:

- [Images, page 12](#)
- [Layouts, page 12](#)
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- [Layouts, page 12](#)

### Images

*Images* can be associated to menus, sub-menus, and items. The groups, items, and images are configured through the Dynamic Menu Board interface. Images of items are used to display the available items on the designated TV in the concession stand. Use the Cisco Vision Director Asset **Library** interface to manage the images.

### Layouts

*Layouts* define the number of columns, headers, and items supported by a menu theme.

Layouts determine what the general layout of and how the menu items will show on the screen. You can have multiple types of layouts within the system, but their formatting (for example, fonts, colors, location, and so on) are defined in the widget.

**Note:** Changes to a layout definition will not automatically update the theme. The number of columns, headers, etc., in a theme is determined by the definition of the associated layout at the time of theme creation only.

In the user interface for DMB, menu theme configuration, columns, headers, and items are displayed hierarchically beneath the expansion arrows for the layout. To display the hierarchy, click on the arrow beside the layout name, and continue to click the expansion arrows to see the full hierarchy. [Appendix A: DMB Default Menu Theme Reference, page 43](#) shows snapshots of the UI hierarchy for each sample layout.

The following sections provide descriptions of layout components:

- [Columns, page 12](#)
- [Headers, page 13](#)
- [Items, page 13](#)

### Columns

Columns have two different conceptual meanings for menu layouts in the DMB application, but these are not explicitly distinguished in the UI.

This difference is important to understand because sometimes a menu theme in the DMB application can have a different number of physical columns seen on the menu display, than internal or *soft* columns that you will see defined within the user interface for formatting:

- *Physical* column—The typical interpretation of a column, which is the number of vertically-aligned groups of menu items seen on the display for that theme. Many times the number of physical columns corresponds one-to-one with the soft columns for a theme in the UI, but not always.
- *Soft* column—The widget list component (either rendered as text or graphics), which is seen in the widget designer when you add menu items, is responsible for formatting of items in a column.

## Dynamic Menu Board Widget

For example, a one-column physical layout such as “Bar right,” implements 4 column levels in the theme’s UI to distinguish the variances in format and content within that single-column menu theme.

Columns are second-level entries seen under the **Theme** configuration. They always correspond to the *soft* columns and are normally labeled “Column1,” “Column2,” and so on.

## Headers

Headers describe the category of menu items, such as “Snacks” or “Beverages.”

The header is a third-level entry in the DMB menu **Theme** configuration that is beneath a column entry in the DMB UI.

Depending on the menu layout definition, the header can be text or an image:

- Textual headers in the DMB UI always use the *Name* field, and some also use the *Description* field.
- Images are predefined for the sample layouts. You can replace these images by selecting an existing image for that header.

**TIP:** Headers that are formatted for images do not use the *Name* or *Description* fields. This can be confusing when you look at the UI for the sample layouts because some of them show the same text in the Name and Description fields as what is also in the image. You can enter values for these fields into the UI to help you spot the header in the layout hierarchy, but they have no effect on the actual menu display.

Whatever is in the image is what will appear in the header location on the display. The Burgers layout in [Appendix A: DMB Default Menu Theme Reference, page 43](#) shows an example of this.

## Items

Items describe the individual entries under the header, normally identifying specific things available for purchase, such as “Grilled Cheese” or “Bottled Water.”

The item is a fourth-level entry in the DMB menu **Theme** configuration that is beneath a header entry in the DMB UI.

Items always support the *Name* and *Price* fields.

## Stores

*Stores* are collections of items that can be linked to appear on one or more menu boards. Cisco Vision Director supports a virtual Cisco store, which is a collection of manually entered items.

## Themes

*Themes* define the content and overall appearance of a menu. Themes include specification of the layout, background, and the specific header and item content, either manually entered or linked to, from a Cisco store.

## Dynamic Menu Board Widget

The resulting menu that is created once you create a corresponding widget is a *Dynamic Menu Board Widget*. Dynamic menu widgets appear as gear icons on the Asset Library. You can schedule a dynamic menu widget (and any widget) in Cisco Vision Director just as you would any other piece of content. For example, you can add a dynamic menu widget to playlists. This enables you to assign a specific menu to a particular group or zone and include it in the event script to play different menu content in the assigned group or zone throughout the game or event.

## Video on Menu Boards

Consider the following guidelines when implementing video on menu boards:

- A DMB menu works like any other graphic in Cisco Vision Director, so it sizes to the non-video region of the template that you put it in.
- Whatever is not part of the background will appear on the top of any other graphic or video.
- To insert a video region as though it were embedded or part of the menu background, do the following:
  - In the menu widget, do not use a background image. You may still use images for menu items.

**TIP:** Transparent regions must use .png format only.

- Create a template with a video region of the size of the full screen menu background.
- Create a non-video playlist for the menu widget.
- Create a video playlist for the video background.

When you add the menu widget and video to the playlist template, the menu items will be displayed on top of the video by default.

New in Release 6.3 is the ability to configure the video layer order while designing your content. For example, you can design a menu in HTML5 with a video background that will then display a video overlay (such as during a Moment of Exclusivity). Configure a new Display Parameter called **dmp.layerOrderMode**. See the Working with Screen Templates chapter of the [Cisco Vision Dynamic Signage Director Operations Guide](#).

## DMB Examples

This section provides examples of the architecture of some of the sample themes and layouts in Cisco Vision Director:

- [Cisco Cola Menu Example, page 14](#)
- [Bar Menu Board Set, page 15](#)

### Cisco Cola Menu Example

Figure 2 on page 14 shows an example of the three-column Cisco Cola menu board. The basic areas targeted for update in this theme are item name and price, which are supported in column 1 and column 3 only.

**Figure 2 3-Column, Mixed-Media Menu**



The headers for the menu board are defined as three images, which are each made up of two different food graphics (Figure 3 on page 15). By embedding pricing or text within the menu board images, it reduces the ability to do dynamic changes. Use widgets with text above the images, if desired.

DMB Examples

**Note:** You can upload alternative images to the Asset Library and select them to replace the default header images in the Cisco Cola menu theme, or the background. See [Appendix A: DMB Default Menu Theme Reference, page 43](#) for image size information.

**Figure 3 Embedded Headers and Prices in Images**



Bar Menu Board Set

Both the Bar and Grill menu board themes are designed to be used as a set across three TV displays.

[Figure 4 on page 15](#) shows an example of the Bar three-menu board set. The basic areas targeted for update in this theme are the textual headers (two per column), and item images, name, and price.

**Figure 4 Bar Menu Board Set – Default**



Many options exist in deploying these menu boards to include the addition of streaming video and additional advertisements. [Figure 5 on page 16](#) shows an example of a custom bar menu board, with graphics added to the margins, images for certain food and beverages, and the calories field revealed for items.

DMB Examples

Figure 5 Bar Menu Board Set – Custom

