



CHAPTER 4

Work with Playlists

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Concepts

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DMP Support, by Model, for Asset Types




	... On These DMP Models		
	DMP 4305G	DMP 4310G	DMP 4400G
We Support These Asset Types...			

Image Formats

• BMP	✗	✗	✗
• GIF	✓	✓	✓
• GIF (<i>animated</i>)	✓ ✗ ¹	✗	✓ ✗ ¹
• JPG (<i>nonprogressive</i>)	✓	✓	✓
• PNG	✓ ✗ ²	✓	✓

Shockwave Flash (SWF) Formats³

• Version 6 (<i>with ActionScript 2</i>)	✓	✓ ⁴	✓ ⁴
• Version 7 (<i>with ActionScript 2</i>)	✓	✓ ⁴	✓ ⁴
• Version 8	✗	✗	✗
• Version 9 (<i>with ActionScript 2 or 3</i>)	✗	✗	✓ ✗ ⁵
• Version 10 (<i>with ActionScript 2 or 3</i>)	✗	✗	✓
• Version 10.1	✗	✗	✗
• FlashLite 3.1 (<i>with ActionScript 2</i>)	✗	✓	✗

- In releases 5.1.1 and earlier, DMP 4305G and 4400G models could render the first frame from an animated GIF but not any of its subsequent frames. Thus, it appeared to be an ordinary GIF image instead of an animation (CSCte64283). However, releases 5.2.0 and later render the entire GIF animation, as expected.
- In releases 5.1.1 and earlier, DMP 4305G endpoints could not render PNG images at all (CSCte64283). However, releases 5.2.0 and later render such images correctly. Even so, they render slowly on DMP 4305G and 4400G models and we recommend on these models that you prefer another format.
- See the “DMD Guidelines for SWF Animations” topics on Cisco.com.
Also: Any SWF that includes Stage.scaleMode = "noScale" in its ActionScript code will prevent older DMP models from scaling it correctly. (CSCtn84520)
- Backward compatible.
- Supported exclusively in DMD 5.2.0. Not supported thereafter.

Guidelines for Playlists

- [Prevent DMPs from Playing Cached Copies of Dynamic Webpages and DHTML](#), page 4-3
- [Bitmapped Images](#), page 4-5
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Prevent DMPs from Playing Cached Copies of Dynamic Webpages and DHTML

**Note**

DMP 4310G endpoints in this release do not include any web browser. Therefore, this topic applies only to DMP 4305G and 4400G endpoints.

Does your Cisco DMS network use a *content distribution system*, such as Cisco ECDS, Cisco ACNS, or Cisco WAAS? If so, special considerations apply to each **nonvideo** playlist that includes any dynamic web assets. There are two types of such assets.

DHTML

Dynamic HTML (DHTML) combines static markup, presentation layer descriptions, client-side scripting, and the Document Object Model to support animations, user interaction, and situational behaviors in webpages. In the end, DHTML's user experience relies equally on three factors:

- The quality and nature of the original page code, as it exists on its production webserver.
- Client-side rendering by browsers, after they download page code from the production webserver.
- User interactions with fully rendered DHTML in a browser.

Dynamic Webpages

Some web servers consider a range of parameters and variables per request before their server-side programming outputs fresh page code from a database. Even when they receive requests for a static URL, these servers transmit fresh page code, which generally will differ somewhat on a case-by-case basis.

The file extension for a dynamic webpage is likely to be CFM, ASP, PHP, JSP, CGI, PL, or SH, depending on the webserver's scripting environment.

**Note**

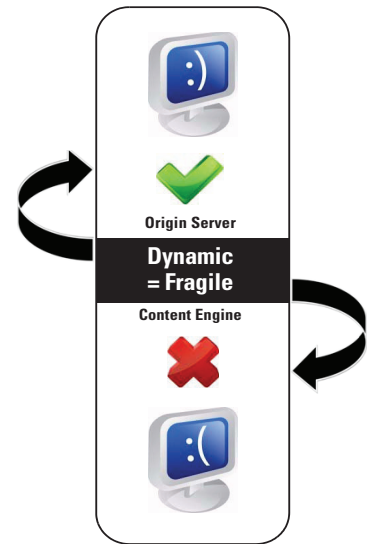
Some dynamic websites combine these methods.

The Problem

Content distribution systems such as Cisco ECDS, Cisco ACNS, and Cisco WAAS make perfect copies of files from an origin server. Then, they seed these duplicate copies—which are frozen in time—to any number of content engines in your network. So, when a content distribution network shows users its cached and unchanging snapshot of a formerly dynamic file, there is no longer anything dynamic about it.

Client systems that request the dynamic page receive only its pale substitute. And yet, dynamic values lose all validity unless they fluctuate, increase, or decrease in ways that are appropriate to their respective contexts. For example, fragile values might include:

- dates or times of day
- weather conditions
- transit schedules
- alert notifications
- seasonal messaging
- status or capacity indicators
- ostensibly current news headlines
- financial information or product and commodity prices



Cached information in these and other categories might be construed as amateurish or silly at best, and as misleading or legally actionable at worst. In any event, digital signs that play misleading information undermine their sponsors' credibility, efforts, and agenda.

Do Not Let This Happen to You

Instead, consider your alternatives. The availability and suitability of such alternatives might sometimes differ slightly between any two DMD releases or any two DMP models.

Alternatives, Tips, Options, and Best Practices

Note There is no web browser on a DMP 4310G. For this method, use a 4305G or a 4400G.

- You can create a wrapper HTML file, which calls the dynamic page. Then, add the wrapper file to your nonvideo playlist instead of adding the dynamic page. Only the wrapper file is cached. For example:

```
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
  <head>
    <title>Today's Date
    </title >
    <style type="text/css">
      iframe.c1 {border:0px}
    </style >
  </head >
  <body>
    <iframe id="frame1" class="c1"
      src="http://www.example.com/includes/today_date.cfm" name="frame1">
    </iframe >
  </body >
</html >
```

Note There is no web browser on a DMP 4310G. For this method, use a 4305G or a 4400G.

- We create a wrapper for you automatically whenever the URL for a nonvideo playlist asset includes at least one query string “get” parameter. Therefore, you can use the actual URL in such cases and nothing else is required of you. For example, if the actual URL were <http://example.com/index.php?dynamic>, we would generate a wrapper for it on your behalf.

Note There is no web browser on a DMP 4310G. For this method, use a 4305G or a 4400G.

- You can append an arbitrary query string “get” parameter to the URL.¹ For example, suppose that the actual URL were <http://example.com/index.html>. You might point instead to <http://example.com/index.html?nocache>. The origin server ignores the specious parameter and delivers the actual URL instead.
- You can create a rule for your CDS that forbids it to cache the URL.²

- Do not append any query string arbitrarily to a webpage whose file extension is CFM, ASP, PHP, JSP, CGI, PL, or SH.
- Some content distribution systems might not support rules of this kind. Please check the product documentation from your system’s manufacturer of record.

Bitmapped Images

When you use a bitmapped image in a playlist, be sure that the playlist object uses the same height and width in pixels that the bitmapped file uses. **When the playlist object is too small, DMD crops the bitmapped image.** DMD does not automatically resize or scale the bitmap.

Shockwave Flash (SWF) Motion Graphics

A DMP 4310G might stop rendering a playlist immediately before it should load and render a SWF asset. Or, it might fail to render a SWF asset in some other context. In either case, examine the FLA source for the SWF and verify that it does not use ActionScript 3.



Tip

When you do not have the FLA source:

1. Open DMPDM on the DMP 4310G.
2. Choose **Flash Playback** from the Display Actions list.
3. Direct DMPDM to play the SWF.

- DMPDM will not play an incompatible SWF.
- We do not support any use of ActionScript 3 on a DMP 4310G. We support ActionScript 2.

Assets

You must add assets to your media library before you can organize them in a playlist.

Bridging Images

Whenever you use a bridging image in a playlist, you must set it to preload. Otherwise, it cannot serve its intended purpose.




Synchronization




Synchronization might truncate the playback for one or more assets in a *secondary* playlist, which inherits its timing for transitions from a *primary* playlist. Also, the Properties panel values that you see for a *secondary* playlist object might be confusing after you override the natural timing of transitions between its assets.

Plan ahead to avoid these potential pitfalls. Consider when you populate a playlist (and when you configure the playback duration for each of its assets) whether you might eventually synchronize it..

Which Properties Can I Change?

After you click an object to choose it, tabs in the Properties drawer show and sort all of that object's properties—both editable and uneditable. Various properties apply to various object types.

Properties Drawer	Support by Playlist Type		
	All Media 	Image Slideshow 	Audio Only 
Style Tab			
Background color	Yes	No	No
Size Tab			
Width and height	Yes	Yes	No

	Support by Playlist Type		
	All Media 	Image Slideshow 	Audio Only 
Properties Drawer			
Constrain proportions	Yes	Yes	No
X and Y coordinates	Yes	Yes	Yes
Options Tab			
Randomize playlist	Yes	No	No
Preload time	Yes	No	No
Transition effect	No	Yes	No



Tip

You can drag a playlist object up or down in the Objects drawer to change your canvas layer stacking order. Doing this changes the cumulative and relative effects of your drop shadows, opacity percentages, rounded corners, and so on.



Understand Playlist Stacking Order

Visual rendering by a DMP 4310G is completely faithful to your actual design for any presentation that you direct it to show. However, earlier DMP models were less stringent in one, key way. Therefore, it might appear that a DMP 4310G is in error when its rendered output of identical content is compared to—but does not match exactly—what earlier DMP models show.

Behavioral Logic

This difference is limited to the front-to-back stacking order of presentation design layers (sometimes called visual planes) in presentations that use video.

- Earlier DMP models always play video assets on the foremost (top) plane, even when the layering of your design might place them lower.
- In contrast, a DMP 4310G plays video on precisely the same layer where your design indicates that it should be played.

Necessary Conditions

*Such differences become noticeable only when **all three** of these statements are true **simultaneously**.*

- The presentation shows multiple playlists at once and one of these is a video playlist.
- The video playlist shares any coordinates in common with a nonvideo playlist.
- The nonvideo playlist layer is stacked higher than the video playlist layer.

Design Once; Render Anywhere

You can work around any noticeable differences in layer stacking order when various DMP models control your digital signs. Merely reopen your presentation designs in Digital Media Designer and move their video playlists to the highest layer. Then, resave these presentations and redeploy them. Afterward, all of your DMPs will render their layer stacking order identically.

Details



All Media Playlist Objects

- When you drop an all media playlist object (🎬) onto your canvas, it becomes the topmost layer automatically. What this means for *you* depends on which DMP model—or models—will render your designs for playback on a presentation system.

	... From This DMP Model		
	DMP 4305G	DMP 4310G	DMP 4400G
Expect This Behavior...			

Actual playback matches DMD object layering—*unless you later do one of the following.*

- Stack the all media playlist object **under** an audio only object (🔊) that is already present on your canvas.
- Drop an audio only playlist object (🔊) onto your canvas.

Note Thus, you cannot use other objects to create an overlay or mask for video. For an overlay of this kind, we recommend that you encode the video file itself so that it includes an overlay before you add it to your media library. Alternatively, you can use JavaScript¹ or ActionScript² to create a presentation outside of DMD.

✔	✘	✔
---	---	---

Actual playback matches DMD object layering—*no matter what.*

✘	✔	✘
---	---	---

1. For a DMP 4305G or 4400G.
 2. For a DMP 4310G. Must use ActionScript 2, not ActionScript 3.



Audio Only Playlist Objects

- When you drop an audio only playlist object (🔊) onto your canvas, it becomes the topmost layer automatically. What this means for *you* depends on which DMP model—or models—will render your designs for playback on a presentation system.

	... From This DMP Model		
	DMP 4305G	DMP 4310G	DMP 4400G
Expect This Behavior...			

Actual playback matches DMD object layering—*unless you later do one of the following.*

- Stack the audio only playlist object **under** an all media playlist object (🎵) that is already present on your canvas.
- Drop an all media playlist object (🎵) onto your canvas.

Stack the audio only playlist object under an all media playlist object (🎵) that is already present on your canvas.	✓	✗	✓
Drop an all media playlist object (🎵) onto your canvas.			

Actual playback matches DMD object layering—*no matter what.*

	✗	✓	✗
--	---	---	---

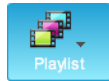
Procedures

- [Add a Playlist Object, page 4-11](#)
- [Rename a Playlist Object, page 4-12](#)
- [Lock or Unlock a Playlist Object, page 4-13](#)
- [Delete or Restore a Playlist Object, page 4-14](#)
- [Manipulate a Playlist Object, page 4-15](#)

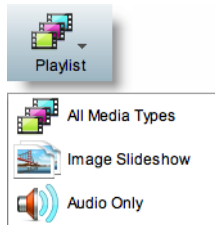
Add a Playlist Object

Procedure

Step 1 Click **Playlist** on the toolbar.

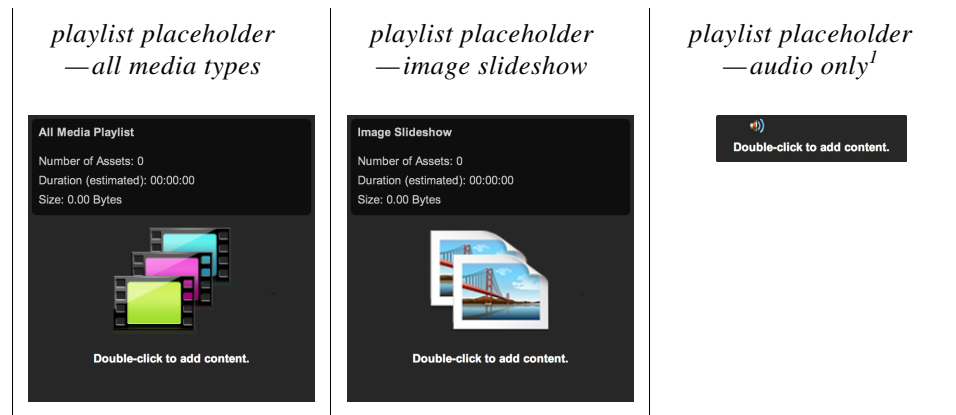


Step 2 Choose whether the new playlist should include a combination of media types, images exclusively, or audio exclusively.



- An image slideshow playlist supports JPEG, GIF, and PNG images, SWF files, and—*on DMP 4305G and 4400G endpoints exclusively*—pages on web servers.
- An all media types playlist supports MPEG-1_TS, MPEG-2_TS, MPEG-4.2_TS, MPEG-4.10 (H.264)_TS, multicast video streams, JPEG, GIF, and PNG images, SWF files, and—*on DMP 4305G and 4400G endpoints exclusively*—pages on web servers.

DMD drops the new playlist object onto your canvas.



1. A presentation cannot contain any more than *one* audio only playlist.

Step 3 Stop. You have completed this procedure.

What to Do Next

- *Would you like to change anything about this object?*
See the [“Manipulate a Playlist Object”](#) section on page 4-15.

Rename a Playlist Object

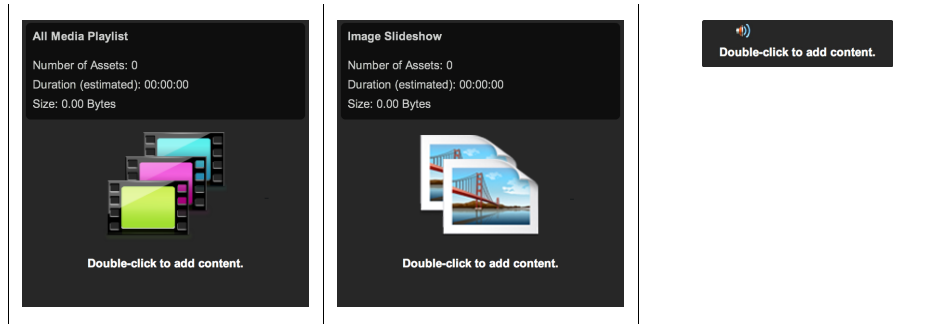
Before You Begin

- Verify that the object is not locked. You cannot rename a locked object.

Procedure

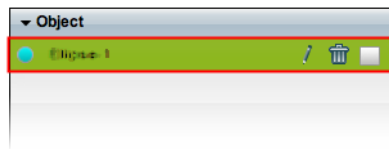
Step 1 Select the object that should change. You can:

- Click it on your canvas.

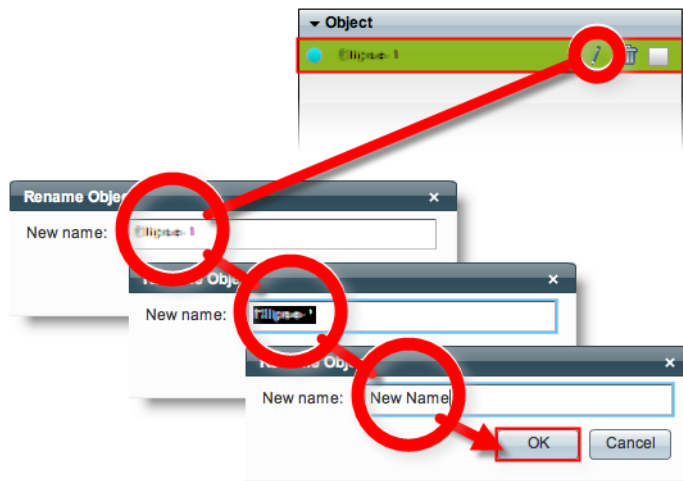


OR

- Click its name in the Object drawer.



Step 2 Click its Edit icon in the Object drawer, enter its new name, and then click **OK**.



Step 3 Stop. You have completed this procedure.

What to Do Next

- *Would you like to change anything about this object?*
See the “[Manipulate a Playlist Object](#)” section on page 4-15.

Related Topics

- [Lock or Unlock a Playlist Object](#), page 4-13

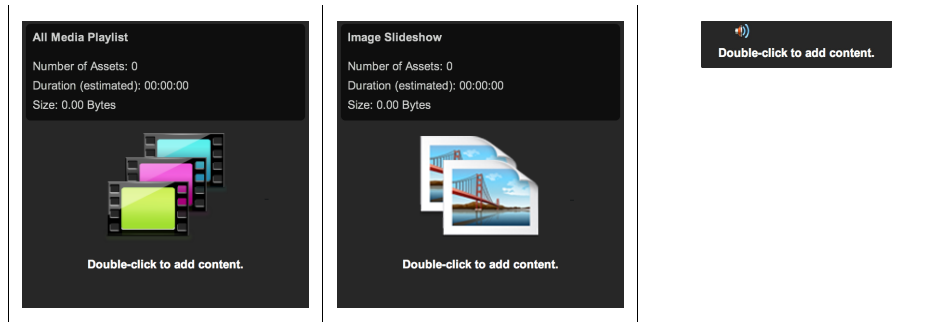
Lock or Unlock a Playlist Object

While an object is locked, you cannot edit or delete it.

Procedure

Step 1 Select the object that should change. You can:

- Click it on your canvas.



OR

- Click its name in the Object drawer.



Step 2 Click the Unlocked check box.



The object is now locked.



Tip

When you want to edit or delete the object, simply reverse these steps.



Step 3 Stop. You have completed this procedure.

Delete or Restore a Playlist Object

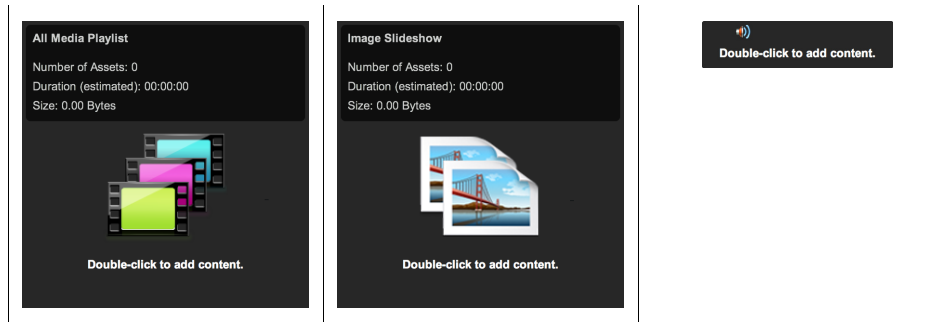
Before You Begin

- Verify that the object is not locked. You cannot delete a locked object.

Procedure

Step 1 Select the object that should change. You can:

- Click it on your canvas.



OR

- Click its name in the Object drawer.



Step 2 Click **Delete** (🗑️).



Note

The deletion occurs immediately. DMD does not prompt you to confirm this action.

**Tip**

You can restore an object that was deleted accidentally. Simply choose **Edit > Undo** immediately afterward. The object returns to its previous state.

Step 3 Stop. You have completed this procedure.

Related Topics

- [Lock or Unlock a Playlist Object, page 4-13](#)

Manipulate a Playlist Object

- [Populate and Organize a Playlist, page 4-15](#)
- [Rename a Playlist Object, page 4-17](#)
- [Set a Playlist Object's Size, page 4-18](#)
- [Set a Playlist Object's Coordinates, page 4-20](#)
- [Synchronize the Playback Timing of Two Playlists, page 4-21](#)

Populate and Organize a Playlist

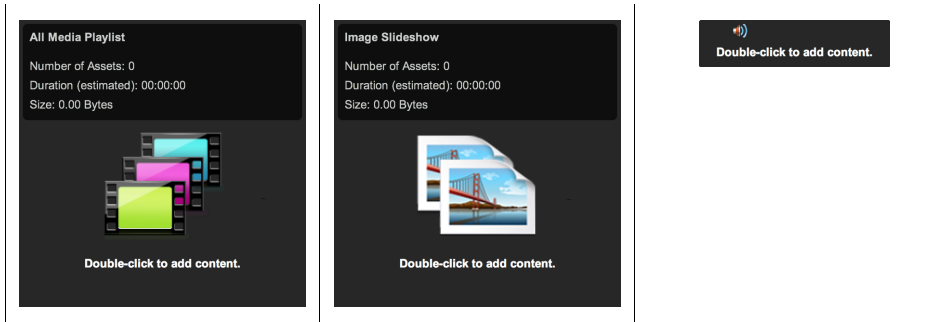
You can populate a playlist with assets stored in your media library or on remote servers. Later, when anyone runs your playlist, it plays these assets in your preferred sequence, with timing that you specify.

**Caution**

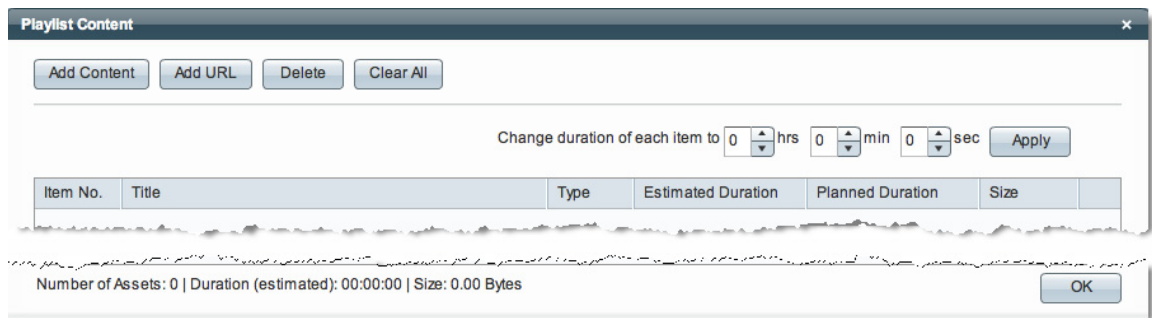
Playback is looped continuously for an asset whose duration is set to 0 (zero) seconds. This looping stops only when you stop the playlist. Therefore, unless your playlist contains only one asset, never set a duration of 0. **Continuous looping prevents playback for any other asset that should be played later as part of the same playlist. This behavior occurs because DMD expects to play every asset in a playlist.** For this reason, it interprets zero duration to mean not the absence of playback itself, but instead the absence of any stopping point during playback. Each nonvideo asset in a playlist must have a planned duration of at least 1 second.

Procedure

Step 1 Double-click the playlist object on your canvas.



Step 2 Use the Playlist Content dialog box to choose assets, place them in their sequence, and set their durations (in seconds) for playback.



Caution

When you populate an all media playlist, do not include any more than 70 video assets. (CSCtk32223)

- **Estimated Duration**—An estimate of an asset's actual running time from start to finish, without regard for how much time your playlist has reserved to show it.
- **Planned Duration**—The amount of time that your playlist has reserved to show an asset. A planned duration of 0 (zero) seconds in the playlist causes a video to play from beginning to end. To skip a video instead of playing it, you must remove it from the playlist.



Note

There is no factory default value for the planned duration of any nonvideo asset. You must enter all such duration values manually. These values become editable only after you double-click them.

Item No.	Title	Type	Estimated Duration	Planned Duration	Size
1	CNN (http://cnn.com)	URL	00 : 00 : 10	00 : 00 : 10	0.00 Bytes

Step 3 Click **OK**.

Step 4 Stop. You have completed this procedure.

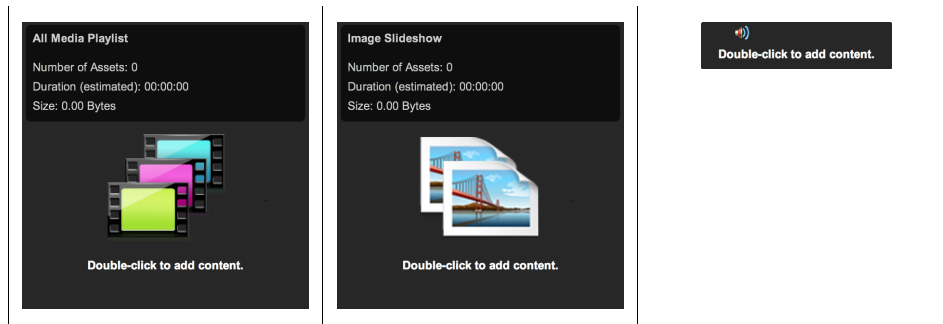
Related Topics

- [Lock or Unlock a Playlist Object, page 4-13](#)

Rename a Playlist Object**Procedure**

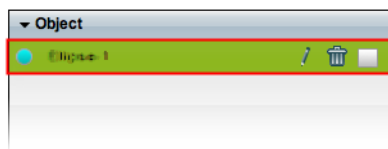
Step 1 Select the object that should change. You can:

- Click it on your canvas.

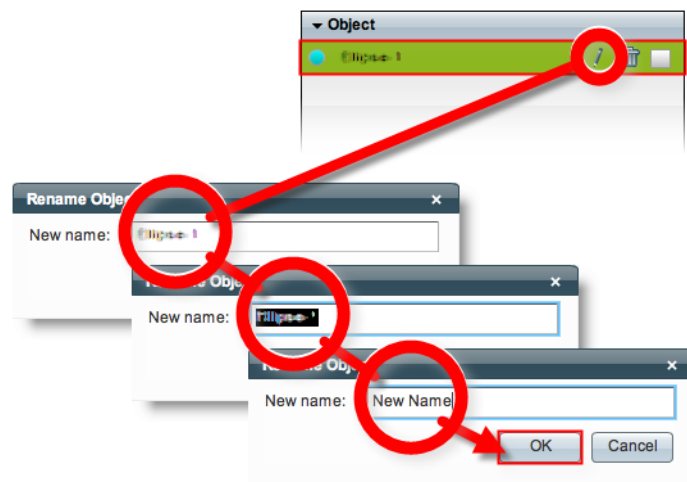


OR

- Click its name in the Object drawer.



Step 2 Click its Edit icon in the Object drawer, enter its new name, and then click **OK**.



Step 3 Stop. You have completed this procedure.

What to Do Next

- *Would you like to change anything about this object?*
See the [“Manipulate a Playlist Object”](#) section on page 4-15.

Related Topics

- [Lock or Unlock a Playlist Object](#), page 4-13

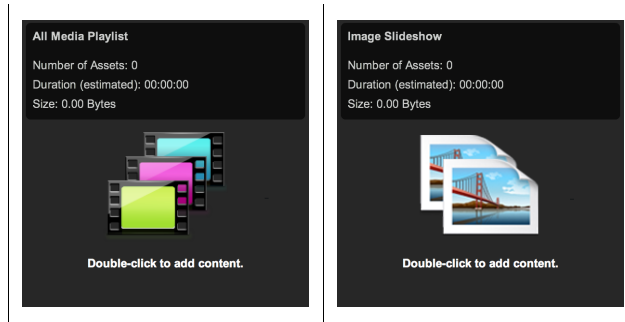
Set a Playlist Object’s Size

You can change the size and proportions of an object on your canvas.

Procedure

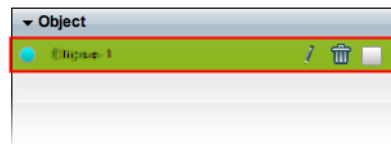
Step 1 Select the object that should change. You can:

- Click it on your canvas.



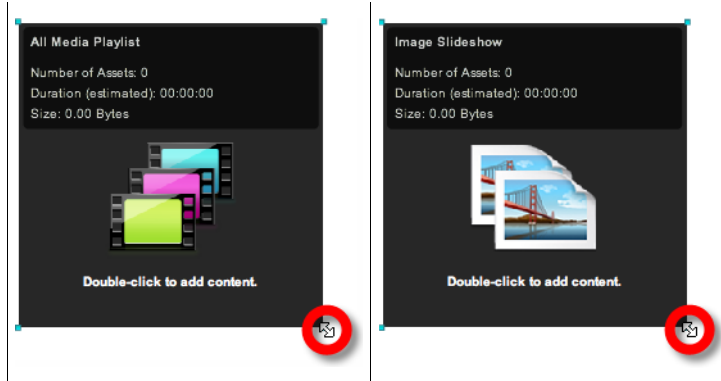
OR

- Click its name in the Object drawer.



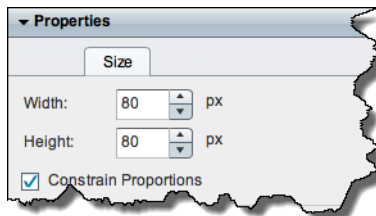
Step 2 Resize the object.

- Click and drag a corner handle.



OR

- Change Width and Height values on the Size tab, in the Properties drawer.

**Tip**

When you check Constrain Proportions, you can change either the width or height manually. Then, DMD adjusts the other one automatically. This convenience ensures that your object's basic shape does not change.

DMD applies these new dimensions to the selected object.

Step 3 Stop. You have completed this procedure.**What to Do Next**

- Would you like to change anything else about this object?*
See the [“Manipulate a Playlist Object”](#) section on page 4-15.

Related Topics

- [Lock or Unlock a Playlist Object, page 4-13](#)

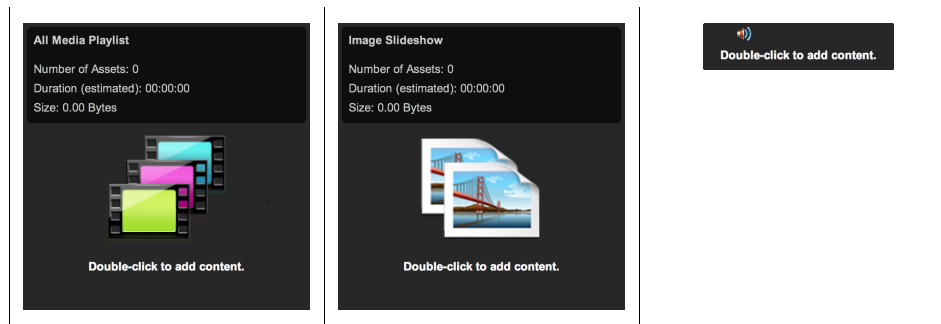
Set a Playlist Object's Coordinates

You can move an object on your canvas.

Procedure

Step 1 Select the object that should change. You can:

- Click it on your canvas.



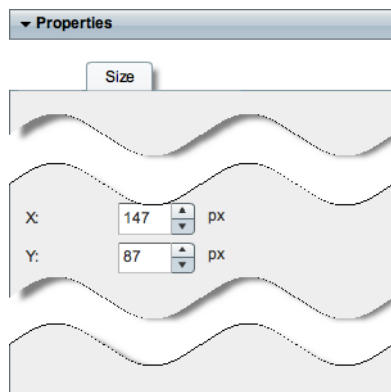
OR

- Click its name in the Object drawer.



Step 2 Move the object.

- Click the object to select it, and then press arrow keys on your keyboard.
 - Nudge left.
 - Nudge right.
 - Nudge up.
 - Nudge down.
- Change X and Y values on the Size tab, in the Properties drawer.



**Tip**

X and Y coordinates pinpoint the position of an object's first pixel, as counted from left to right and top to bottom.

- **X measures pixel offset from the left canvas edge.** Increase *X* to nudge an object toward the right edge.
- **Y measures pixel offset from the top canvas edge.** Increase *Y* to nudge an object toward the bottom edge.

DMD moves to the selected object to its new coordinates.

Step 3 Stop. You have completed this procedure.

What to Do Next

- *Would you like to change anything else about this object?*
See the “[Manipulate a Playlist Object](#)” section on page 4-15.

Related Topics

- [Lock or Unlock a Playlist Object, page 4-13](#)

Synchronize the Playback Timing of Two Playlists

You can synchronize the playback timing for transitions in two playlists. When you do so, you impose the timing from one playlist (the *primary*) to override the timing for another playlist (the *secondary*).

Procedure

Step 1 Click **Synchronize Playlists** on the toolbar.



Step 2 Use the Synchronize Playlists dialog box.

- Choose the *primary* playlist on the left. Its asset durations will override those of a secondary playlist.
- Choose the *secondary* playlist on the right. Its asset durations are ignored.



- Click **OK**.

Step 3 Stop. You have completed this procedure.

What to Do Next

- *Would you like to change anything else about this object?*
See the “Manipulate a Playlist Object” section on page 4-15.

Related Topics

- [Lock or Unlock a Playlist Object, page 4-13](#)

Reference

- [FAQs and Troubleshooting, page 4-22](#)

FAQs and Troubleshooting

- [FAQs, page 4-22](#)

FAQs

- Q.** Why might a DMP 4305G or DMP 4400G crop a Shockwave Flash (SWF) asset instead of scaling it, even though a DMP 4310G scales the identical SWF without cropping it?
- A.** Any SWF that includes `Stage.scaleMode = "noScale"` in its ActionScript code will prevent older DMP models from scaling it correctly. Adobe explains the root cause for this limitation at http://adobe.com/support/flash/action_scripts/actionscript_dictionary/actionscript_dictionary678.html. Older DMPs scale SWF assets based on the combination of three factors.
- The `Stage.scaleMode` parameter in your ActionScript code.
 - The `scale` parameter of the embed tags in your HTML code.
 - Your use of HTML `object` tags.

Although an older DMP will scale the main root stage of your SWF when both parameters in your HTML code are set to allow scaling, any sub-objects will scale according to how the SWF asset itself is programmed. (CSCtn84520)