



# Schedule Media to Play and Commands to Run

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We prepared this material with specific expectations of you.

- ✓ You work in the centralized DMP schedule to render media for timed playback, issue commands that operate and maintain equipment, guide your audiences to safety during public emergencies, and so on.



Note

This material pertains to multiple releases of Cisco DMS.

5.2.0	5.2.1	5.2.2	5.2.3
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## Concepts

- [Overview, page 3-1](#)
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## Overview

Our scheduling service helps you to control exactly when particular DMPs play your choice of assets or execute your saved commands. You can schedule these events to occur at any time. You can even set them to recur as often as needed. Moreover, you can schedule hundreds of future events.

### Now

You can trigger such events to start manually and run only once. We call this method “Play Now.”

### Later

Or, you can set them to run automatically from a schedule, with or without recurrence. (We call this method “Play in Future.”)

Topics in this section tell you how to plan deliveries of assets and commands that you prepare for DMPs.

The schedule can manage multiple deployments simultaneously and—assuming that a DMP has a fast network connection and you send deployments to it that are not mutually exclusive—a DMP can receive multiple deployments simultaneously.

You can schedule future time slots for elements that you will deploy once or repeatedly to:

- One registered DMP, if it belongs to a DMP group which does not contain any other DMPs.
- Multiple registered DMPs that all use the same one DMP group as their parent.
- All of your registered external (FTP) deployment servers; the schedule treats all of your registered external servers identically.

## Understand Future Deployments for Presentations

You can deploy only one presentation at a time if the assets that it uses should be stored directly on your DMPs. To check the free space on the SD memory card in a DMP, choose **Digital Media Players > DMP Manager**, and then look in the DMP List table for the amounts of free space in internal and external storage. Alternatively, log in to the local instance of DMPDM, and then click **Internal Storage**.

## Understand Time Zones in the Schedule

Displayed times for deployments in the schedule are relative to the time zone where you deployed your DMM appliance, not the time zone where you deployed any DMP, and not the time zone for any other locale. You set the time zone value for your DMM appliance when you used AAI to configure it and you can use AAI to correct the time zone value if it is wrong.

Future time slots that the schedule describes will always designate hours in boldface numerals according to the UTC time zone offset for the locale where your DMM appliance is installed.

When you work from any other time zone and view the schedule, this offset will differ from the offset at your location and the difference might be confusing. Furthermore, the offset might be confusing even when you and your DMM appliance are together in one time zone but you want to schedule time slots for a DMP that is in some other time zone.



### Tip

**In either of these scenarios, you can cause the schedule to designate hours from two time zones simultaneously.**

One of these time zones is always the one for your DMM appliance. To choose the second time zone (whether it is for your personal locale or the locale of a DMP), select a named UTC offset option, such as “America/Los Angeles,” from the untitled list above the schedule. The schedule is then updated immediately to show designated hours from the second time zone that you selected, in addition to the designated hours that it always shows for your DMM appliance.

- Small, plain numerals designate hours for the UTC-offset locale that you selected.
- Large, boldface numerals designate hours for the locale where your DMM appliance is installed.

## Understand Tooltips in the Schedule Timeline

Whenever your pointer hovers over a event in the timeline, the schedule shows a tooltip. Information in the tooltip describes the current status of the corresponding event and summarizes its most important attributes. Information in the tooltip is organized as follows.

### Related Topics

- [Elements of a Tooltip in the Schedule Timeline, page 3-10](#)

## Understand Inline Status Messages for Deployed Events in the Schedule

Whenever you let your pointer hover over a scheduled deployment in the timeline, we describe the current status and summarize its most important attributes.

### Related Topics

- [Elements to Describe the Status of Deployed Events, page 3-11](#)

## Guidelines

- [Best Practices to Prevent Unscheduled DMP Restarts, page 3-3](#)
- [Best Practices to Manage and Maintain the Schedule, page 3-3](#)
- [Best Practices to Stop Playback of a Scheduled Job, page 3-4](#)

## Best Practices to Prevent Unscheduled DMP Restarts

We designed DMPs to restart gracefully when they run out of free memory. This is the fastest and most effective way to purge memory on a DMP.

For this reason, we recommend that you restart your DMPs deliberately from time to time, according to a schedule that you control. Doing so can reduce or prevent unscheduled restarts, which could otherwise occur at inconvenient or inopportune times.

Determine first if unexpected restarts occur at a predictable interval, as is likely. If you notice, for example, that your DMPs seem to restart unexpectedly after your playlists or presentations run for approximately 7 days, then you could schedule a controlled restart to run once every 6 days.

The interval that's best for one network could be unsuitable for another. Your assets and how you combine them are the greatest predictor of how much time can elapse before your DMPs run out of free memory.

The syntax is `mng.reboot=1`.

## Best Practices to Manage and Maintain the Schedule

Avoid placing entries in your schedule that recur often and persist for an unreasonably long time, and also avoid all other practices that might cause your schedule to become too large. Otherwise, DMM might not generate your manifest files quickly enough and your ACNS CDM or root CE might time out. We recommend that you apply this rough algorithm:

- An entry that recurs daily should persist in your schedule for no more than 3 days.
- An entry that recurs weekly should persist in your schedule for no more than 3 weeks.

- Almost never schedule event instances that extend more than 60 days into the future. The exceptions to this rule are:
  - An entry that recurs monthly can persist in your schedule for as long as 3 months.
  - An entry that recurs annually can persist in your schedule for as long as 3 years.

Furthermore, we recommend these additional best practices:

- Avoid deploying assets to any given DMP more than once per day. Ideally, all deployments should occur outside your normal business hours. You can schedule a deployment package that contains assets for more than one presentation if the target DMP has sufficient local storage to save the entire package. Applied outside normal business hours, this simple method reduces your dependence on daytime deployments, which might otherwise disrupt your digital signage temporarily.
- Avoid having any more than approximately 200 events (of all kinds, combined) saved in your schedule at any one time.
- Avoid having any more than approximately 100 presentations saved in DMD at any one time. If your presentations database grows too large, you might be prevented from designing, saving, and deleting presentations, and the start time might be disrupted for your scheduled events.
- Instead of creating a presentation that is similar to one that used to be in your schedule, simply modify the old presentation and reschedule it.
- Avoid extending the playback window for your customer-facing presentations and playlists beyond the actual hours when customers will see them.
- If you are not sure when or how many times a task or presentation occurs in your schedule, you can use the Schedule Reports feature.

## Best Practices to Stop Playback of a Scheduled Job



**Caution**

**Do not delete an event from your schedule to stop a presentation from playing on your DMPs.**

When you do this, your DMPs continue to use the presentation as if nothing has changed. This occurs because each deployment job includes an instruction to stop, which you delete along with the job that contains it.

**Instead, use Play Now to deliver the Stop All Applications command.**

## Restrictions

- [External Server Restrictions, page 3-4](#)
- [Content Delivery Network Restrictions, page 3-5](#)

## External Server Restrictions



**Caution**

**It is important to understand all possible limitations and effects of deploying to an FTP server, as well as the exact circumstances that lead to these effects.** Files are sometimes unplayable or deleted automatically; subdirectories are sometimes created automatically; and values that you enter in DMM are sometimes changed automatically.

- You cannot use the Schedules > Play Now feature with external deployment servers.
- All deployments to external servers require that you use Schedules > Play in Future.
- Video files do not play at all when you deploy to an FTP server a presentation whose MPEG files are:
  - Requested through Microsoft Proxy Server.
  - Requested through Microsoft Internet Security and Acceleration Server.
- When your media library in DMM is the source for a file that you deploy as part of a presentation, and when you choose an FTP server as the target to receive that file, DMM transfers copies of the relevant file to *all* of the FTP servers that you have registered. After the transfer is completed, DMM *deletes* the original file from its media library, and then changes the relevant presentation so that it uses a URL instead of a local path. The URL that DMM enters automatically is specific to whichever FTP server you registered first.
- When an HTTP URL is the source for a deployed file, and when the pathname on the source server contains subdirectories that do not exist on the target FTP server, DMM automatically creates the required subdirectories on the FTP server.

## Content Delivery Network Restrictions

### ACNS

- We recommend that you avoid using immediate deployments with ACNS, due to the amount of time required to distribute assets throughout your network and to its edge. If you do so despite this recommendation, DMM always uses the default ACNS channel. You cannot use any other channel.

### ECDS

- We recommend that you avoid using immediate deployments with ECDS, due to the amount of time required to distribute assets throughout your network and to its edge. If you do so despite this recommendation, DMM always uses the default ECDS channel. You cannot use any other channel.

### WAAS

- We recommend that you avoid using immediate deployments with WAAS, due to the amount of time required to distribute assets throughout your network and to its edge.

## Scenarios

- [Methods to Pre-empt Only One Instance of a Recurring Event, page 3-5](#)

## Methods to Pre-empt Only One Instance of a Recurring Event

In some cases, you might want to do something one time, or for a limited time, that overlaps with a recurring event. For example, you might schedule a presentation to run from 9:00 a.m. to 6:00 p.m. every weekday in the month of March, but want to show a different presentation on the second Tuesday in March.

The challenge is that your DMP cannot prioritize contradictory events that are scheduled to start simultaneously. However, there are several ways to pre-empt a recurring event.

- [Method One, page 3-6](#)
- [Method Two, page 3-6](#)
- [Method Three, page 3-6](#)

## Method One

### Workflow

1. Schedule and deploy a recurring event for the first uninterrupted span of dates.
2. Schedule and deploy the one-time event.
3. Schedule and deploy a copy of the first recurring event for the second uninterrupted span of dates.

## Method Two

### Background

Assume that you have created two DMP groups. This scenario calls them Group\_A and Group\_B.

- For Group\_A, schedule an event that recurs throughout the entire span of dates.
- For Group\_B, schedule the one-time event.

### Workflow

1. Move targeted DMPs from Group\_A to Group\_B when the one-time event should begin.
2. Return the DMPs to Group\_A when the one-time event should end.
3. Choose **Schedules > Play Now**.
4. Click **Group\_A** in the DMP Groups tree.
5. Ctrl-click each DMP that should start again to show the recurring presentation.
6. Choose **Select an Event Type > Digital Signs**.
7. Click **Select Digital Signage**.
8. Click the name of the recurring presentation name.
9. Click **OK**.

## Method Three

### Background

Assume that the one-time event is live streaming video of an important meeting or conference. You can schedule the interruption far ahead of time and simply set it to occur once.

### Workflow

1. Schedule a recurring event to run every weekday, as you might expect, from 9:00 a.m. to 6:00 p.m.
2. Schedule the (Go to) URL command to start at 9:05 a.m., so that it interrupts the recurring event **but does not conflict with its start time**.
3. Schedule the (Go to) URL command to stop at 6:00 p.m.

The recurring event begins again, as expected, at 9:00 a.m. the next day.

# Procedures

- [Use 'Play Now' to Transmit Assets or Commands Immediately, page 3-7](#)
- [Use the 'Run Task' Feature to Transmit Assets or Commands Immediately, page 3-8](#)
- [Schedule the Time Slot for a Future Event, page 3-8](#)

## Use 'Play Now' to Transmit Assets or Commands Immediately

You can deploy immediately to one DMP or to one DMP group.

### Before You Begin

- You must already have created and saved what you will deploy.
- You must already have created the group whose member DMPs should receive the deployment.

### Procedure

- 
- Step 1** Choose **Schedules > Play Now**.
- Step 2** Choose one of these from the Event Type list, according to your need.
- **Digital Signs**
  - **Cast**
  - **System Tasks**
- Your choice reveals a button whose name is derived from your choice.
- Step 3** Click the button to choose particular assets or particular commands.  
A dialog box opens. Its name and elements vary by event type.
- Step 4** Click the name of the command or asset to be deployed.
- Step 5** Click **OK** to confirm your selection and close the dialog box.
- OR**
- Click **Cancel** to discard your selection and close the dialog box.
- Step 6** Expand a group in the **DMP Groups** tree to list its member DMPs.
- Step 7** Ctrl-click in this list the name of each DMP that should receive the deployment.
- Step 8** Click **Submit** to confirm your selections and deploy the element immediately.
- OR**
- Click **Cancel** to discard your work for this deployment.
- Step 9** Stop. You have completed this procedure.
-

**Related Topics**

- [Understand Future Deployments for Presentations, page 3-2](#)
- [Use the ‘Run Task’ Feature to Transmit Assets or Commands Immediately, page 3-8](#)

## Use the ‘Run Task’ Feature to Transmit Assets or Commands Immediately

**Procedure**

- 
- Step 1** Choose **Digital Media Players > DMP Manager**.
- Step 2** Navigate in the DMP Groups object selector, expanding its levels as necessary until you find in its hierarchy the parent group for a DMP that should receive assets or instructions. Then, click the name of this DMP group in the object selector.
- OR**
- Choose an option from the Filter list to restrict which DMPs the DMP List table describes.
- Step 3** (**Optional**) If DMP data in the table straddles multiple pages, use pagination controls above the table to move between pages.
- Step 4** Choose which DMPs in the DMP List table should receive the assets or instructions that you will deploy.
- Step 5** Choose an action from the Action list, above the DMP List table.
- Step 6** Click **Go**. The specified action starts immediately.
- Step 7** Stop. You have completed this procedure.
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**Related Topics**

- [Schedule Media to Play and Commands to Run, page 3-1](#)
- [Use ‘Play Now’ to Transmit Assets or Commands Immediately, page 3-7](#)

## Schedule the Time Slot for a Future Event


**Before You Begin**

- You must already have created and saved the elements that you will deploy.
- You must already have created the DMP group that should receive a deployment.

**Procedure**

- 
- Step 1** Choose **Schedules > Play in Future**.
- Step 2** From the calendar, choose the year, month, and day when the deployment should start.  
The timeline is updated automatically, so that it shows the schedule for that day.
- Step 3** From the Event Type list, under the timeline, choose the deployment type.



- Step 4** When the Schedule Task dialog box opens, complete these steps:
- Click **Select Group**, click the group name for the DMPs or the external (FTP) deployment servers that should receive this deployment, and then click **OK**.
  - Click the **Select <event\_type> Tasks** button, click the name of the specific event to be deployed, and then click **OK**.
  - To designate the start and stop times for this event:
    - In the Start Time area—For the deployment date that you chose in [Step 2](#), enter the hour (numeric, in the range from 1 to 12) and minute (numeric, in the range from 00 to 59) when DMPs should start this event, and then enter either AM or PM as the period.
    - In the Stop Time area—Use the same method to specify when DMPs should stop this event.
- Step 5** From the Repeat list, choose the recurrence interval for this event. The intervals are:
- Never
  - Every Day
  - Every Week
  - Every Month
  - Every Year
- Step 6** To save your selections, click **Save All**.
-  **Note**
- If you do not click Save All, the schedule discards your selections immediately after you refresh your browser or load any other page.
  - You must click Save All even if you do not plan to deploy the event right away. Later, when you are ready to deploy the event, click Publish All.
- 
- Step 7** **(Optional)** To make copies of an event in the schedule, so that it recurs as many times as you want and at any interval that you specify:
- Click the event description on the timeline, and then choose **Add an Event > Duplicate All**.
  - Click the first **Select** button to choose the group whose event will be copied, and then click **OK**.
  - Click the second **Select** button to choose the group that should receive the copy, and then click **OK**.
  - Click **Save**.
- Step 8** Click **Publish All** to transmit the deployment according to your defined schedule and synchronize it if you use ACNS or WAAS.
- Step 9** Stop. You have completed this procedure.
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# Reference

- [Software UI and Field Reference Tables, page 3-10](#)
- [FAQs and Troubleshooting, page 3-12](#)

## Software UI and Field Reference Tables

- [Elements of a Tooltip in the Schedule Timeline, page 3-10](#)
- [Elements to Describe the Status of Deployed Events, page 3-11](#)

### Elements of a Tooltip in the Schedule Timeline

#### Navigation Path

Schedules > Play in Future

**Table 3-1**      *Schedule Timeline Tooltips*

Category	Description
Status	<p>One of the following:</p> <ul style="list-style-type: none"> <li>• <b>New</b>— You made selections to define a new deployment. However, because you have not yet clicked Save, the schedule will discard your selections if you refresh your browser or load any other page in it.</li> <li>• <b>Saved</b>— You made selections to define a new deployment and you clicked Save. You created a permanent record for the deployment, but have not scheduled it yet to run.</li> <li>• <b>Published</b>— You made selections to define a deployment, you saved your selections, and the deployment is scheduled to run at the times that you specified.</li> <li>• <b>Scheduled</b>— The deployment is occurring now.</li> <li>• <b>Finished</b>— The deployment occurred at the scheduled time and is now stopped.</li> </ul>
App	The selection that you made from the Applications list.
Group	The selection that you made from the DMP Groups list.
From	The date and time when the deployment is (or was) scheduled to start.
To	The date and time when the deployment is (or was) scheduled to stop.
Repeat	The number of times that the deployment is scheduled to recur.

**Table 3-1**      **Schedule Timeline Tooltips (continued)**

Category	Description
Start Cmd Result (Total/OK/Failed)	<p><i>N/N/N</i>, where:</p> <ul style="list-style-type: none"> <li>The first <i>N</i> is a color-coded (black) numeral that counts the total number of times that DMM tried to deploy the command to start the designated task.</li> <li>The second <i>N</i> is a color-coded (green) numeral that counts the number of times that DMM succeeded in deploying the command to start the designated task.</li> <li>The third <i>N</i> is a color-coded (red) numeral that counts the number of times that DMM failed to deploy the command to start the designated task.</li> </ul>
Stop Cmd Result (Total/OK/Failed)	<p><i>N/N/N</i>, where:</p> <ul style="list-style-type: none"> <li>The first <i>N</i> is a color-coded (black) numeral that counts the total number of times that DMM tried to deploy the command to stop the designated task.</li> <li>The second <i>N</i> is a color-coded (green) numeral that counts the number of times that DMM succeeded in deploying the command to stop the designated task.</li> <li>The third <i>N</i> is a color-coded (red) numeral that counts the number of times that DMM failed to deploy the command to stop the designated task.</li> </ul>

## Elements to Describe the Status of Deployed Events

### Navigation Path

Schedules > Play in Future

**Table 3-2**      **Elements to Describe the Current Status of Scheduled Events**

Category	Description
Application Name	The selection that you made from the Applications list.
Application Type	<p>Either <i>Digital Media Designer</i> or one of the following.</p> <ul style="list-style-type: none"> <li>(Go to) URL</li> <li>Deployment Package</li> <li>DMP Audio/Video Settings</li> <li>DMP Discovery (autoregistration)</li> <li>DMP Display Controls</li> <li>DMP Failover Retry</li> <li>DMP Firmware Upgrade</li> <li>DMP Startup URL</li> <li>File Transfer to DMP or Server</li> <li>System Tasks</li> </ul>
From	The date and time when the deployment is (or was) scheduled to start.
To	The date and time when the deployment is (or was) scheduled to stop.
How Often	The number of times that the deployment is scheduled to recur.

**Table 3-2** Elements to Describe the Current Status of Scheduled Events (continued)

Category	Description
Status	<p>One of the following:</p> <ul style="list-style-type: none"> <li>• <b>New</b>— You made selections to define a new deployment. However, because you have not yet clicked Save, DMM will discard your selections if you refresh your browser or load any other page in it.</li> <li>• <b>Saved</b>— You made selections to define a new deployment and you clicked Save. DMM created a permanent record for the deployment, but has not scheduled it yet to run.</li> <li>• <b>Published</b>— You made selections to define a deployment, you saved your selections, and DMM has scheduled the deployment to run at the times that you specified.</li> <li>• <b>Scheduled</b>— The deployment is occurring now.</li> <li>• <b>Finished</b>— The deployment occurred at the scheduled time and is now stopped.</li> </ul>
Group	The selection that you made from the DMP Groups list.
Start Command Summary (Total/OK/Failed)	<p><i>N/N/N</i>, where:</p> <ul style="list-style-type: none"> <li>• The first <i>N</i> is a color-coded (white) numeral that counts the total number of times that DMM tried to deploy the command to start the designated task.</li> <li>• The second <i>N</i> is a color-coded (green) numeral that counts the number of times that DMM succeeded in deploying the command to start the designated task.</li> <li>• The third <i>N</i> is a color-coded (red) numeral that counts the number of times that DMM failed to deploy the command to start the designated task.</li> </ul>
Stop Command Summary (Total/OK/Failed)	<p><i>N/N/N</i>, where:</p> <ul style="list-style-type: none"> <li>• The first <i>N</i> is a color-coded (white) numeral that counts the total number of times that DMM tried to deploy the command to stop the designated task.</li> <li>• The second <i>N</i> is a color-coded (green) numeral that counts the number of times that DMM succeeded in deploying the command to stop the designated task.</li> <li>• The third <i>N</i> is a color-coded (red) numeral that counts the number of times that DMM failed to deploy the command to stop the designated task.</li> </ul>

In addition, a status bar at the bottom of the popup window counts the number of errors associated with the described deployment.

## FAQs and Troubleshooting

- [FAQs, page 3-12](#)

### FAQs

**Q.** Can I schedule an event that has no stop date?

**A.** Not exactly. However, when you use Play Now to initiate an event, it runs until another event starts.

**Q.** What prevents me from seeing the software user interface for Play in Future?

**A.** Refresh your browser. If the problem persists, make sure that your client OS, browser, and JRE are all set to English.