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Batch Monitor is an easy-to-use application for viewing or adjusting the status of batches and jobs processed by Compressor or Apple Qmaster.

This preface covers the following:

- About Batch Monitor (p. 5)
- About the Batch Monitor Documentation (p. 5)
- Additional Resources (p. 6)

**About Batch Monitor**
You use Batch Monitor to monitor the transcoding progress of batches and jobs. You can pause, resume, cancel, and get the status for any submitted batch or any individual job, target, or target segment. You can also use Batch Monitor to view detailed history for recently completed batches and jobs.

**About the Batch Monitor Documentation**
The *Batch Monitor User Manual* (this document) describes the Batch Monitor application only. For information about Compressor, see the *Compressor User Manual*, available in Compressor Help. For information on how to create a complete network for Apple Qmaster processing, see the *Distributed Processing Setup Guide*, available in Compressor Help and Apple Qmaster Help. (To access onscreen help for an application, open the application and choose the application’s help from the Help menu.)

- *Batch Monitor User Manual*: This brief document describes how to use Batch Monitor to monitor the transcoding progress of batches and jobs.
- *Compressor User Manual*: This is a comprehensive document that describes the Compressor interface, commands, and menus and gives step-by-step instructions for using Compressor and accomplishing specific tasks. It is written for users of all levels of experience.
- *Distributed Processing Setup Guide*: This manual explains how to set up and maintain a distributed processing network for use with Compressor or digital visual effects software packages.
Additional Resources
There are a variety of Apple websites that you can visit to find additional information.

Compressor Website
For general information and updates, as well as the latest news on Compressor, go to:
• http://www.apple.com/finalcutstudio/compressor

Apple Service and Support Websites
For software updates and answers to the most frequently asked questions for all Apple products, go to the general Apple Support webpage. You’ll also have access to product specifications, reference documentation, and Apple and third-party product technical articles.
• http://www.apple.com/support

For software updates, documentation, discussion forums, and answers to the most frequently asked questions for Compressor, go to:
• http://www.apple.com/support/compressor

For discussion forums for all Apple products from around the world, where you can search for an answer, post your question, or answer other users’ questions, go to:
• http://discussions.apple.com
Just as Printer Setup Utility allows you to view print jobs submitted to a printer, Batch Monitor lets you view the status of batches submitted for processing. For example, Batch Monitor displays each batch’s name, details of where it originated, the percentage of completion, and the estimated time before completion. Batches not yet running appear as pending. Each batch, job, target, and target segment includes status information and a progress bar, as well as buttons you can use to pause, resume, cancel, and get the status of a transcode that is currently in progress.

**Note:** The most popular use of Batch Monitor is viewing the progress of the Compressor transcoding batches. By default, Batch Monitor does not automatically open when you submit a Compressor batch. To have Batch Monitor open automatically, in Compressor choose Compressor > Preferences > Auto launch Batch Monitor. See the Compressor User Manual for more information.

This chapter covers the following:

- About the Batch Monitor Main Window (p. 8)
- About the Inspector Window (p. 10)
- Viewing or Changing the Status of a Submitted Batch (p. 11)
- Batch Monitor and Distributed Processing (p. 12)
- Batch Monitor Preferences (p. 14)
- Using the Command Line (p. 16)
About the Batch Monitor Main Window
Most of the Batch Monitor controls are available in the Batch Monitor main window.

The Batch Monitor main window includes the following sections:

General Interface
For details about the toolbar buttons and the batch display, see the next sections.

• **Batch display**: Provides a hierarchical display of batch, job, target, and segment information for current and completed batches. Also includes controls to pause, resume, cancel, and get status for any individual batch, job, target, or segment.

• **Toolbar**: Use the toolbar to adjust the display of items you are monitoring. See Toolbar Buttons for details.

• **Cluster list**: Displays a list of computers available for processing batches, including “This Computer” (the one using Batch Monitor) and all enabled Apple Qmaster processing clusters on your network. Select any cluster in the list to monitor its activity.

• **User buttons**: Click the Me button to display batches you submitted. Click All to display all batches for the selected cluster. (For information about permissions and password protection, see the Distributed Processing Setup Guide, available in Compressor Help and Apple Qmaster Help.)

• **Status buttons**: Click the Active button to display batches that the selected cluster is currently processing. Click Completed to display batches that the selected cluster has already completed. Click All to display all batches for the selected cluster.

Toolbar Buttons
Batch Monitor contains a toolbar with the following buttons that let you adjust the display of batch status information.
Note: If the toolbar isn’t visible when you open Batch Monitor, click the button in the upper-right corner of the Batch window to open it.

- **Refresh:** Click Refresh to update the status of a selected cluster immediately, rather than wait for the next update event.
- **Expand All:** Reveals all job, target, and segment information for every batch.
- **Collapse All:** Displays batch-level information only.
- **Sort Order:** Switches the batch list between descending and ascending order.

**Batch Display**

Batches, jobs, targets, and segments are displayed in hierarchical (nested) views. Each view in the batch view hierarchy contains a disclosure triangle. Click the disclosure triangles to reveal the next level of the hierarchy. For example, click the disclosure triangle in a batch view to reveal the jobs contained within the batch, and click the disclosure triangle in a job view to reveal the targets contained within the job.

*Note:* Completed tasks appear in the same view area.

- **Batch view:** Displays the batch name, the number of jobs and targets contained within the batch, the date and time on which the batch was submitted, the name of the user who submitted the batch, and the status.
• **Job view:** Displays the name, the number of targets and segments contained within the job, the input file type (displayed as an icon), and the status.

• **Target view:** Displays the type (displayed as an icon), the name, the number of segments that the target has been broken down into, and the status.

• **Segment view:** Displays a description (a time-based or frame-based description of the portion of the target being processed), the machine name (service node that the segment is being processed on), the status, and the machine type (displayed as an icon). Segment information is available only while a batch is being processed.

### About the Inspector Window
To get detailed information about any submitted batch, job, target, or segment, click its Show Info button to open the Inspector for that item. The Inspector includes two tabs: the Status tab and the Log tab.

### Status Tab
The Status tab displays the full text of status messages on any batch, job, target, or segment, such as Name, Submission Time, Owner, Time Elapsed, Time Remaining, Percent Complete, and Status.
Log Tab
The Log tab displays detailed text information on any batch, job, target, or segment. This information is useful for troubleshooting distributed processing issues, and it can be saved to a file and processed with XML tools and UNIX scripts.

Log and Notification Labels
The following table lists the service labels used in logs and email notifications.

<table>
<thead>
<tr>
<th>Processing</th>
<th>Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Compressor service</td>
<td>servicecontroller:com.apple.stomp.transcoder</td>
</tr>
<tr>
<td>Distributed Compressor service</td>
<td>servicecontroller:com.apple.stomp.transcoderx</td>
</tr>
<tr>
<td>Distributed Apple Qmaster service</td>
<td>servicecontroller:com.apple.qmaster.executor</td>
</tr>
</tbody>
</table>

Viewing or Changing the Status of a Submitted Batch
You open Batch Monitor to see the status of a submitted batch and all the jobs contained within it. Because it is a standalone application, you can view the Batch Monitor window whether or not Compressor or Apple Qmaster is open and whether or not you have submitted anything.

**Note:** By default, Batch Monitor opens automatically whenever you submit a batch using Apple Qmaster. You can enable the same automatic behavior for Compressor by selecting the “Auto launch Batch Monitor” checkbox in Compressor preferences.

To view the status of your batch
1. To manually open Batch Monitor, do one of the following:
   - Double-click the Batch Monitor icon in the Utilities folder.
   - Click the Batch Monitor button in either the Compressor window or the Apple Qmaster window.
Batch Monitor opens. If you just submitted a batch, you should see it being processed. If you didn't recently submit a batch, the table is empty.

2 View the batch processing details and take any necessary action.
   • To reveal information about the component parts of a batch, job, or target: Click the disclosure triangle next to the item name.
   • To pause a job, batch, or target: Click the corresponding Pause/Resume button.
   • To restart the processing for an item: Click the corresponding Pause/Resume button.
   • To cancel a job, batch, or target: Click its Cancel button.

When the progress bar reaches 100 percent, your media file has been successfully transcoded and saved in the designated destination folder. Completed batch and job items are marked “Successful” and remain in the batch display. Unsuccessful batch and job items are marked “Failed” and remain in the batch display.

3 Click the Show Info button for any item in the batch display to view information about that item.

4 In the Inspector window that appears, click either the Status tab or the Log tab to view the respective details.

5 Open the destination folder to view the newly transcoded output media file.

Batch Monitor and Distributed Processing
If you have set up an Apple Qmaster distributed processing system to process Compressor or Apple Qmaster jobs, Batch Monitor will offer some additional features. For example, both administrators and client users can use Batch Monitor to monitor the processing of submitted jobs. Administrators can stop or cancel any batch, as long as they have the administrator password for the cluster that is processing the batch, and users can stop or cancel their own batches.

Batch Monitor and Passwords
There are different kinds of passwords that may affect how you use Batch Monitor. For more information, see the Distributed Processing Setup Guide, available in Compressor Help and Apple Qmaster Help.
Administrator Password
If you create this password, administrators will need to know it in order to modify the selected cluster and to view the selected cluster’s batches in Batch Monitor. To create an administrator password, click the Security tab in Apple Qadministrator.

User Password
If you create this password, users will need to know it in order to submit batches to the selected cluster and to view those batches in Batch Monitor. To create a user password, click the Security tab in Apple Qadministrator.

Service Node Password
If you are setting up a QuickCluster, other users will be required to enter this password before being allowed to submit remote requests to the computer.

If you are setting up a cluster to use with Apple Qadministrator, an administrator will be required to enter this password before being allowed to add the computer to a cluster. To create a service node password, select the “Require password” checkbox in the Apple Qmaster pane of System Preferences.

Viewing or Changing Batch Status for Distributed Processing
Depending on how you open Batch Monitor, the application may have slightly different views, with different levels of control.

To view or change batch status
1. Open Batch Monitor in one of the following ways.
   - Administrators who want to see or modify the status of batches: Choose Cluster > Show Batch Monitor when Apple Qadministrator is open.
   - Users who want to see the status of batches and modify the status of their own batches: Use the Batch Monitor window that opens when you do any of the following:
     - Double-click the Batch Monitor icon in the Utilities folder.
     - Click the Batch Monitor button in either the Compressor window or the Apple Qmaster window.
     - Submit a batch from Apple Qmaster or Compressor (preferences must be set to open Batch Monitor automatically).

2. Choose the cluster whose activity you want to view from the Cluster list.

3. View the batch processing details and take any necessary action.
   - Note: Client users cannot modify other users’ batches. When they select a batch or job submitted by another user, the Cancel and Pause/Resume buttons are not available.

   For more details, see Setting Batch Monitor Preferences and Viewing or Changing the Status of a Submitted Batch.
Batch Monitor Preferences
You can use the Batch Monitor Preferences window to configure several aspects of Batch Monitor. Most of the information displayed in Batch Monitor can be shown or hidden using settings in Batch Monitor preferences.

About the Batch Monitor Preferences Window
The Batch Monitor Preferences window includes the following view options and network options:

View Options
- **Show Jobs**: Select this checkbox to show job views (and target and segment views) in the Batch Monitor batch display.
- **Show Targets**: Select this checkbox to show target views (and segment views) in the Batch Monitor batch display.
- **Show Segments**: Select this checkbox to show segment views in the Batch Monitor batch display.

Network Options:
Enter IP addresses or ranges for manually selected computers:

<table>
<thead>
<tr>
<th>Name</th>
<th>IP address or range</th>
<th>Status</th>
</tr>
</thead>
</table>

[Image of the Batch Monitor Preferences window with checkboxes for Show Jobs, Show Targets, Show Segments, and a table for Network Options]
• “Update every” field: Enter the number of seconds between updates from processing computers to control how often Batch Monitor information is updated.

The Status Interval setting in Apple Qadministrator cluster preferences takes precedence over the update frequency setting in Batch Monitor preferences. Batch Monitor can provide new status information only as often as it receives it from the cluster controller, as set in the Status Interval field of the Apple Qadministrator Cluster Preferences window. For more information, see “Setting Cluster Preferences” in the Distributed Processing Setup Guide, available in Compressor Help and Apple Qmaster Help.

Network Options
• “Enter IP addresses or ranges for manually selected computers” table: This table displays information about remote host computers.

• Add/Remove button: Use the button to add or remove information about remote host computers.

Remote Computer Address Dialog
This dialog is displayed when you click the Add/Remove button in the main Preferences dialog. Use this dialog to enter IP addresses or ranges for manually selected computers.

• Host/Host IP Address Range buttons: These buttons control whether this dialog is in IP Address mode (in which you enter a specific address) or IP Address Range mode (in which you enter a range of addresses).

• Host: Use this mode to enter a host name and IP address for a specific remote computer.

• Host IP Address Range: Use this mode to enter a name and set of range numbers (Range From, Range To) for a range of remote IP addresses.
Setting Batch Monitor Preferences
Use the Batch Monitor Preferences window to configure several aspects of Batch Monitor.

To set Batch Monitor preferences
- Choose Batch Monitor > Preferences, or press Command-Comma (,).

The Batch Monitor Preferences window opens.

Any changes you make to the Batch Monitor preference settings take effect only when you click OK. If you make changes but decide not to use them, click Cancel.

Using the Command Line
If you are accustomed to doing your work from Terminal shells, and you need or prefer to run Batch Monitor, Compressor, or the Apple Qmaster distributed processing system from the command line with minimal use of application interfaces, this appendix is for you.

Note: On any given Final Cut Studio system or network, the Compressor and Apple Qmaster versions (numbers) and the version of QuickTime must all match. For example, Compressor 3.0.5 will work only with the 3.0.5 version of Apple Qmaster, and no other version. In this example, the correct version of QuickTime is QuickTime 7.5.5 or later. Non-matching configurations are not supported.

Installing Apple Qmaster from the Command Line
Follow these steps to install Apple Qmaster software on each computer you want to use for distributed processing. (All computers must be on the same subnet.)

To install Apple Qmaster software from the command line
1. Copy the standalone installer package (AppleQmasterNode.mpkg) to the remote system.
   *Note:* Do not alter the file hierarchy of the packages.

2. Log in to the remote system.

3. Enter the following command:
   ```bash
   sudo installer -pkg AppleQmasterNode.mpkg -target /
   ```
   Apple Qmaster processes start automatically after installation.

4. Repeat these steps for each computer in your distributed processing network.

*Tip:* You can also install Apple Qmaster using Apple Remote Desktop. Just select a node, click Install Package, and select the standalone installer package (AppleQmasterNode.mpkg). The copy and installation process is done automatically.
Shell Commands for Configuring Service Nodes and Cluster Controllers

As an alternative to using the Apple Qmaster pane in System Preferences, you can use the command `qmasterprefs`, with command-line options for enabling and disabling service node and cluster-controlling services.

In the command-line descriptions below, angle brackets `< >` indicate a mandatory argument in a command, and brackets `[ ]` indicate an optional argument.

**Synopsis**
Below is a synopsis of the command for enabling and disabling Apple Qmaster services on a computer. The `qmasterprefs` command is located in `/usr/sbin`.

```
qmasterprefs [options] [-cluster <on | off> [options]] [-service <name> <on | off> [options]]
```

**Command Options**
This table provides information about each of the enabling and disabling service-node and cluster-controlling services on a computer.

<table>
<thead>
<tr>
<th>Preference command option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-help</td>
<td>Displays information about supported options for qmasterprefs.</td>
</tr>
<tr>
<td>-list</td>
<td>Lists the current qmasterprefs settings.</td>
</tr>
<tr>
<td>-allowBonjourDiscovery &lt;on</td>
<td>Enables or disables Bonjour advertisements.</td>
</tr>
<tr>
<td></td>
<td>off&gt;</td>
</tr>
<tr>
<td>-startSharing [servicesOnly</td>
<td>Sets sharing state. (Similar to the Apple Qmaster pane in System</td>
</tr>
<tr>
<td></td>
<td>servicesAndCluster</td>
</tr>
<tr>
<td></td>
<td>servicesAndQuickCluster]</td>
</tr>
<tr>
<td>-stopSharing</td>
<td>Stops Apple Qmaster services on local computer.</td>
</tr>
<tr>
<td>-restart</td>
<td>Restarts all Apple Qmaster services.</td>
</tr>
<tr>
<td>-reset</td>
<td>Resets Apple Qmaster services to default configuration.</td>
</tr>
<tr>
<td>-launchContentAgent &lt;on</td>
<td>Automatically launches content agent at startup.</td>
</tr>
<tr>
<td></td>
<td>off&gt;</td>
</tr>
<tr>
<td>-log [0-5] [truncate on</td>
<td>Sets logging level. Default is 3. Off is 0. Sets whether logs are</td>
</tr>
<tr>
<td></td>
<td>off]</td>
</tr>
<tr>
<td>-statusMenu &lt;on</td>
<td>Displays service node status indicator in menu bar.</td>
</tr>
<tr>
<td></td>
<td>off&gt;</td>
</tr>
<tr>
<td>Preference command option</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>-cluster &lt;on</td>
<td>off&gt; [options]</td>
</tr>
<tr>
<td>-service &quot;name&quot; [on</td>
<td>off] [options]</td>
</tr>
</tbody>
</table>

**Note:** For a complete list of shell command options, enter qmasterprefs -help.

**Example of the qmasterprefs Command**

In the following example, the computer is set to be a cluster controller, bound to the primary network interface (en0), with logging set to verbose, with the logs not overwritten. The Rendering service is on, with 4 managed services and logging set to verbose, with the logs not overwritten. The Compressor Processing service is configured with the same settings, with two instances.

```
qmasterprefs -sharingType servicesAndCluster -cluster on networkinterface en0 log 5 truncate off -service Rendering on sharing on instances 4 unmanaged off log 5 truncate off -service "Compressor Processing" on sharing on instances 2 unmanaged off log 5 truncate off
```

**To reset controller and service configurations**

- Enter the following:
  
  qmasterprefs -reset

**To reset all controller and service processes and cancel all batches in queue**

- Enter the following:
  
  qmasterprefs -resetCluster cancelJobs

**To stop sharing**

- Enter the following:
  
  qmasterprefs -stopSharing

**To start sharing**

- Enter the following:
  
  qmasterprefs -startSharing
To change the cluster storage path to an Xsan volume
- Enter the following:
  qmasterprefs -cluster off storagepath /Volumes/XsanVol

To change the number of Compressor Processing services from 2 to 4
- Enter the following:
  qmasterprefs -service "Compressor Processing" off sharing on instances 4

To turn off the Rendering service
- Enter the following:
  qmasterprefs -service Rendering off

To turn on unmanaged services for Compressor Processing
- Enter the following:
  qmasterprefs -service “Compressor Processing” on unmanaged on

To configure a service-only node
- Enter the following:
  qmasterprefs -stopSharing -sharingType servicesOnly -startSharing

To create a QuickCluster
- Enter the following:
  qmasterprefs -stopSharing -sharingType servicesAndQuickCluster -startSharing

Shell Commands for Submitting Compressor Jobs
You can run the Compressor application from the command line using the Compressor command, with a number of command-line options for submitting jobs.

In the command-line descriptions below, angle brackets < > indicate a mandatory argument in a command, and brackets [ ] indicate an optional argument.

Synopsis
Below is a synopsis of the command for submitting a job to a cluster. The Compressor command is located in /Applications/Compressor.app/Contents/MacOS/.


In this example, -jobpath, -settingpath, and -destinationpath can be repeated as many times as the number of jobs you want to submit.

Note: Not all the options are necessary. For example, you can specify the cluster either by its -clustername or by its -clusterid. You do not need to specify both. If both are specified, only -clusterid is used.
Additionally, if you specify `-batchfilepath`, then `-jobpath`, `-settingpath`, and `-destinationpath` are not necessary because the previously saved batch file already contains information about the job, settings, and destination.

**Example of `-batchfilepath`:**

```bash
Compressor -clustername "This Computer" -batchfilepath
"/Volumes/Hermione/SavedCompressorBatches/FreeChampagne.compressor"
```

Once the job is submitted successfully, this command displays the batch ID (identifier) and job ID (identifier) in the shell, and you can monitor the progress of a batch in Batch Monitor.

**Command Options**

This table provides information about each of the command options for submitting jobs.

<table>
<thead>
<tr>
<th>Submission command option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>-clusternane &lt;name&gt;</code></td>
<td>Use to specify the name of the cluster to which you want to send the job. Using the cluster name, Compressor looks for the cluster on the network in order to use it.</td>
</tr>
<tr>
<td><code>-password &lt;value&gt;</code></td>
<td>User password for the cluster specified by ID or name.</td>
</tr>
<tr>
<td><code>-batchname &lt;name&gt;</code></td>
<td>Use to specify a name for the batch so that you can easily recognize it in Batch Monitor.</td>
</tr>
</tbody>
</table>
| `-clusterid <user name:password@IP address:port number>` | Optionally, you can use `-clusterid` to enter the cluster ID and port number instead of using `-clustername`. (When you enter the cluster ID and port, less time is required to find the cluster on the network.)
  
  Or, if you used `-clustername` and the cluster requires a password, use `-clusterid` to specify the user name and password. (You need to include the `IP address:port number` as well whenever you use `-clusterid`.)
  
  Use `Compressor -show` to see a cluster’s IP address and port number. |
| `-priority <value>`       | Specifies the priority level for a job. |
| `-jobpath <url>`          | Specifies the location of the source file. |
| `-settingpath <url>`      | Specifies the location of the settings for the job. |
| `-destinationpath <url>`  | Specifies the destination file URL for the job. |
| `-info <xml>`             | Gives detailed information for a batch or a job. |
| `-timeout <seconds>`      | Use to specify the number of seconds before Compressor can quit when looking for a cluster. The default value is 0, which puts no limit on the timeout and allows Compressor to browse the network for as long as it needs to find the cluster. |
| `-show`                   | Shows the ID information for the cluster specified with `-clustername` or `-clusterid`, or for all clusters if no cluster is specified. |
Submission command option | Description
---|---
-help | Displays information regarding the required parameters for the Compressor command.

**Example of Compressor Command XML**
The code below is an example of XML code for submitting a Compressor command. Notice that because it needs to be entered as one command line, every character after -options that isn’t alphanumerical must be preceded with a backslash (\).

```
./Compressor -clusterid tcp://127.0.0.1:51737 -batchname myBatch -jobpath /Volumes/Source/ShortClips/NTSC24p.mov -settingpath /Users/stomper10/Library/Application\ Support/Compressor/PhotoJPEG.setting -destinationpath /Users/machinename/Movies/myDestinationFilename.mov.
```

This command has the following elements:
- Cluster address is tcp://127.0.0.1:51737.
- Batch name is myBatch.
- Job path is /Volumes/Source/ShortClips/NTSC24p.mov.
- Setting path is /Users/stomper10/Library/Application Support/Compressor/PhotoJPEG.setting.
- Destination path is /Users/machinename/Movies.

**Shell Commands for Submitting Apple Qmaster Jobs**
You can use the Apple Qmaster command, Apple Qmaster, with a number of command-line options for submitting jobs.

In the command-line descriptions below, angle brackets < > indicate a mandatory argument in a command, and brackets [ ] indicate an optional argument.

**Synopsis**
Below is a synopsis of the command for submitting a job to a cluster. The Apple Qmaster command is located in /Applications/Apple Qmaster.app/Contents/MacOS/.

```
Apple Qmaster [-clustername <name>] [-clusterid <user name:password@IP address:port number>] [-command <command type> -options <XML command> [-wd<working directory>] [-timeout <seconds>] [-show] [-batchname <name>] [-help]
```

Once the job is submitted successfully, this command displays the batch ID (identifier) and job ID (identifier) in the shell.

**Command Options**
This table provides information about each of the command options for submitting jobs.
### Submission command option | Description
---|---
`-clustername <name>` | Use to specify the name of the cluster to which you want to send the job. Using the cluster name, Apple Qmaster looks for the cluster on the network in order to use it.

`-batchname <name>` | Use to specify a name for the batch so that you can easily recognize it in Batch Monitor.

`-clusterid <user name:password@IP address:port number>` | Optionally, you can use `-clusterid` to enter the cluster ID and port number instead of using `-clustername`. (When you enter the cluster ID and port, less time is required to find the cluster on the network.)

Or, if you used `-clustername` and the cluster requires a password, use `-clusterid` to specify the user name and password. (You need to include the IP address:port number as well whenever you use `-clusterid`.)

Use Apple Qmaster `-show` to see a cluster’s IP address and port number.

`-command <command type>` | Specifies the kind of command you are entering: Shell, Shake, Maya, or other command, depending on the application you want to use for distributed processing.

`-options <XML command>` | Specifies the command with XML code. Enter the XML code after `-options`, with the necessary qualifiers for entering it in a shell. See Shell Commands for Submitting Apple Qmaster Jobs, next, for an example.

If no `-option` is entered, the values from the application’s preferences file, in `~/Library/Preferences/`, are used (which are the values of the most recent job submitted).

`-wd <working directory>` | Use to specify the working directory path (from which the command should be executed). The default working directory is `/Applications/Shake`.

`-timeout <seconds>` | Use to specify the number of seconds before Apple Qmaster can quit when looking for a cluster. The default value is 0, which puts no limit on the timeout and allows Apple Qmaster to browse the network for as long as it needs to find the cluster.

`-show` | Shows the ID information for the cluster specified with `-clustername` or `-clusterid`, or for all clusters if no cluster is specified.

`-help` | Displays information about supported options for Apple Qmaster.

### Example of Shake Command XML
The code below is an example of XML code for submitting a Shake command.
Note: Apple Qmaster stores the XML code for the last command you entered in ~Library/Preferences/com.apple.AppleQmaster.plist. You can copy the command in XML form there, and customize it to use for a new job submission.

Shell Commands for Monitoring Batches
You can use the Batch Monitor command, Batch Monitor, with a number of command-line options for monitoring jobs.

In the command-line descriptions below, angle brackets < > indicate a mandatory argument in a command, and brackets [ ] indicate an optional argument.

Synopsis
Below is a synopsis of the command for monitoring batches. The Batch Monitor command is located in /Applications/Utilities/Batch Monitor.app/Contents/MacOS/.

Batch Monitor [-clustername <name>] [-clusterid <user name:password@IP address:port number>] [-jobid <identifier> -batchid <identifier>] [-timeout <seconds>] [-query <seconds>] [-help]

To cancel a job or batch
- Use the following command:

Batch Monitor [-clustername <name>] [-clusterid <IP address> <port number> <user name> <password>] -kill -jobid <identifier> -batchid <identifier>

Command Options
This table provides information about each of the command options for monitoring batches.

<table>
<thead>
<tr>
<th>Monitoring command option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-clustername &lt;name&gt;</td>
<td>Use to specify the name of the cluster to which the job was sent.</td>
</tr>
<tr>
<td>-password &lt;value&gt;</td>
<td>User password for the cluster specified by ID or name.</td>
</tr>
<tr>
<td>-clusterid &lt;user name:password@IP address:port number&gt;</td>
<td>Optionally, you can use -clusterid to enter the cluster ID and port number instead of using -clustername. Or, if you used -clustername and the cluster requires a password, use -clusterid to specify the user name and password. (You need to include the IP address:port number as well whenever you use -clusterid.) Use Apple Qmaster -show or Compressor -show to see a cluster's IP address and port number.</td>
</tr>
</tbody>
</table>
**Monitoring command option** | **Description**
--- | ---
-`jobid <identifier>` | Use to specify the job you want to monitor.
-`batchid <identifier>` | When you use the `-jobid` option, you must also specify the `-batchid`, in the form of the name that was given to the batch when it was submitted. (The `-batchid` and `-jobid` are displayed after a batch is submitted.)
 | If you do not use the `-jobid` option, all the jobs submitted to the specified cluster are listed.
-`timeout <seconds>` | Use to specify the number of seconds before Batch Monitor can quit when looking for a cluster. The default value is 0, which puts no limit on the timeout and allows Batch Monitor to browse the network for as long as it needs to find the cluster.
-`query <seconds>` | Use to specify how frequently, in seconds, the job status should be updated.
-`kill -jobid <identifier> -batchid <identifier>` | Cancels the specified job or batch.
-`-help` | Displays information about supported options for Batch Monitor.

**Using Scripts to Run Apple Qmaster, Compressor, and Batch Monitor**
To simplify your use of the command line, you can add command-line-friendly scripts to `/usr/bin`. Each script sets an `env` variable for location and then executes the binary. Using the following scripts would be useful if you frequently use the command line for submissions or automated submissions. You do not need to specify the full path, and you can add frequently used `env` variables and options to speed up the submission process. To run Apple Qmaster, Compressor, or Batch Monitor, you can simply open up a terminal and type `qmaster`, `compressor`, or `batchmonitor`.

**Apple Qmaster Script Example**
```bash
#!/bin/csh -f
#
# set env var, QMASTER_LOCATION if not set
#
if ${? QMASTER_LOCATION} == 0 then
    pushd `dirname $0` >& /dev/null
    setenv QMASTER_LOCATION /Applications/Apple\ Qmaster
    popd >& /dev/null
endif
#
# launch qmaster
#
exec ${QMASTER_LOCATION}/Apple\ Qmaster.app/Contents/MacOS/Apple\ Qmaster
$argv:q
```
Compressor Script Example
#!/bin/csh -f
#
# set env var, COMPRESSOR_LOCATION if not set
#
if ${?COMPRESSOR_LOCATION} == 0 then
    pushd `dirname $0` >& /dev/null
    setenv COMPRESSOR_LOCATION /Applications/Compressor.app/Contents/MacOS
    popd >& /dev/null
endif
#
# launch Compressor
#
exec ${COMPRESSOR_LOCATION}/Compressor $argv:q

Batch Monitor Script Example
#!/bin/csh -f
#
# set env var, BATCHMONITOR_LOCATION if not set
#
if ${?BATCHMONITOR_LOCATION} == 0 then
    pushd `dirname $0` >& /dev/null
    setenv BATCHMONITOR_LOCATION
"/Applications/Utilities/Batch Monitor.app/Contents/MacOS"
    popd >& /dev/null
endif
#
# launch Batch Monitor
#
exec "${BATCHMONITOR_LOCATION}/Batch Monitor" $argv:q