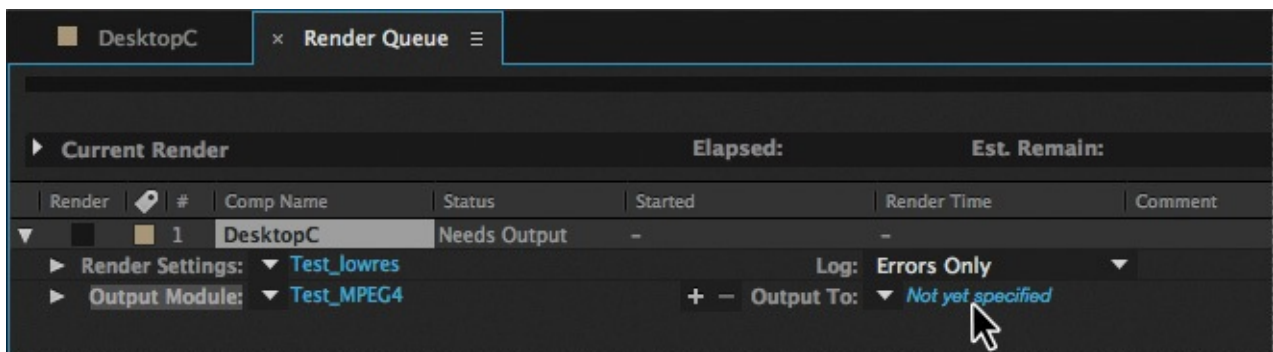


In the Render Queue panel, note the default settings in the Render Settings and Output Module pop-up menus. You'll change those settings when you select your low-resolution templates.

2. Choose `Test_lowres` from the Render Settings menu.
3. Choose `Test_MPEG4` from the Output Module menu.
4. Click the blue words next to Output To.



5. In the Output Movie To dialog box, locate the Lessons/Lesson14 folder, and create a new folder called **Final\_Movies**:
  - In Windows, click New Folder, and then type the name for the folder.
  - In Mac OS, click the New Folder button, name the folder, and click Create.
6. Open the Final\_Movies folder.
7. Name the file **Final\_MPEG4.mov**, and then click Save to return to the Render Queue panel.

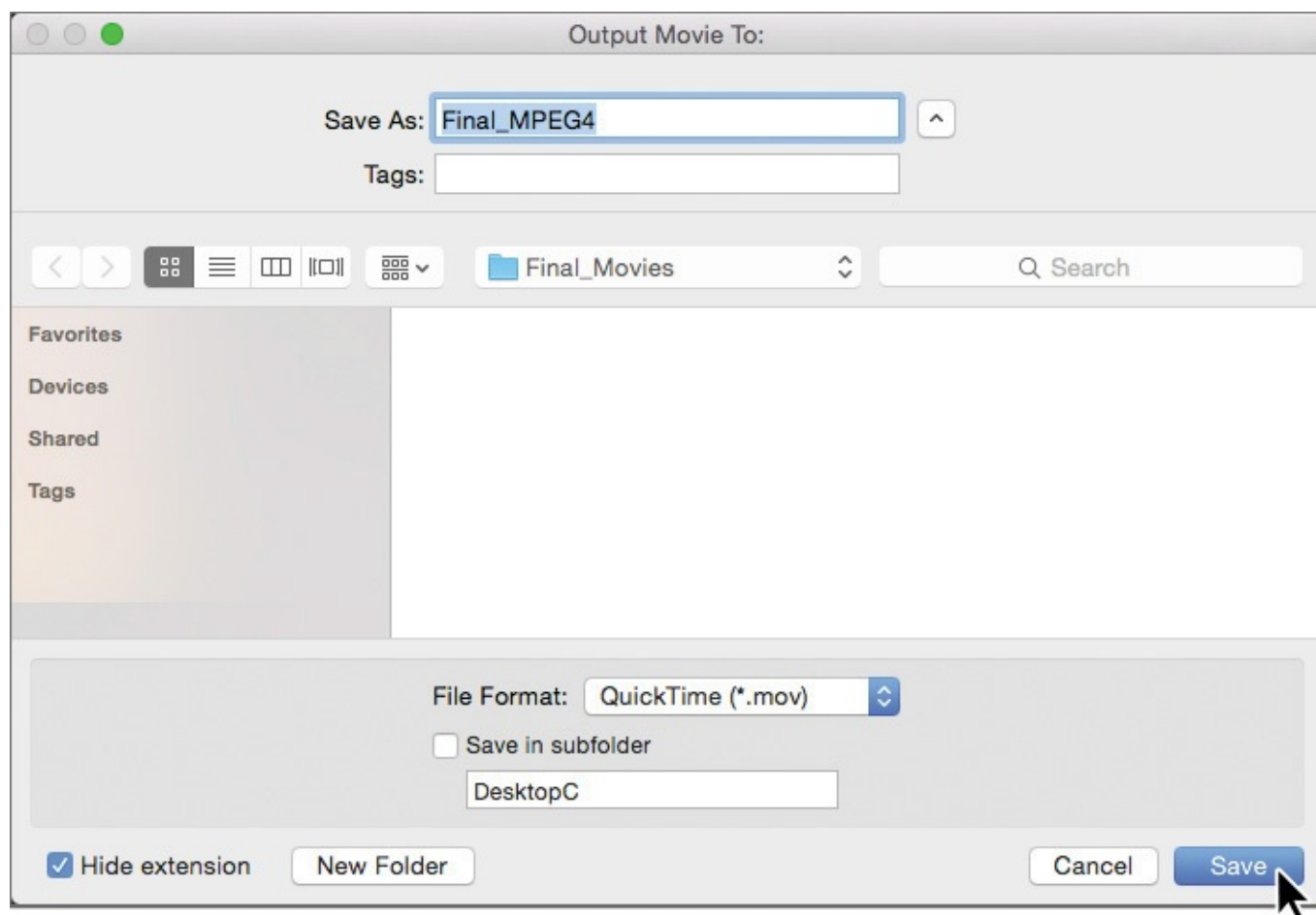
---

### ● Note

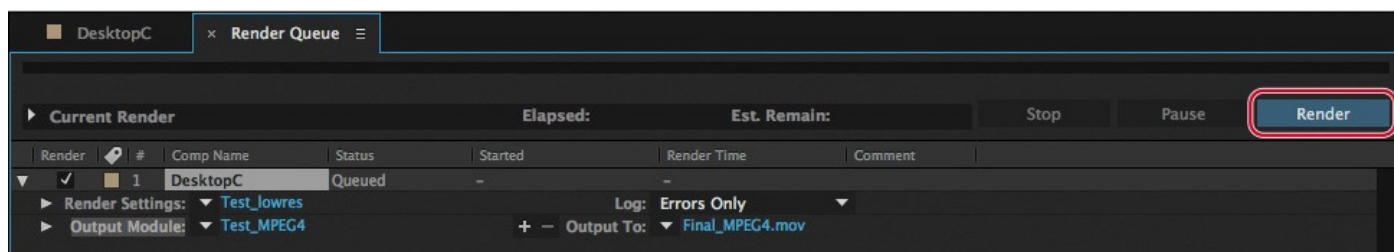
You do not need to render a movie multiple times to export it to multiple formats with the same render settings. You can export multiple versions of the same rendered movie by adding output modules to a render item in the Render Queue panel.

---

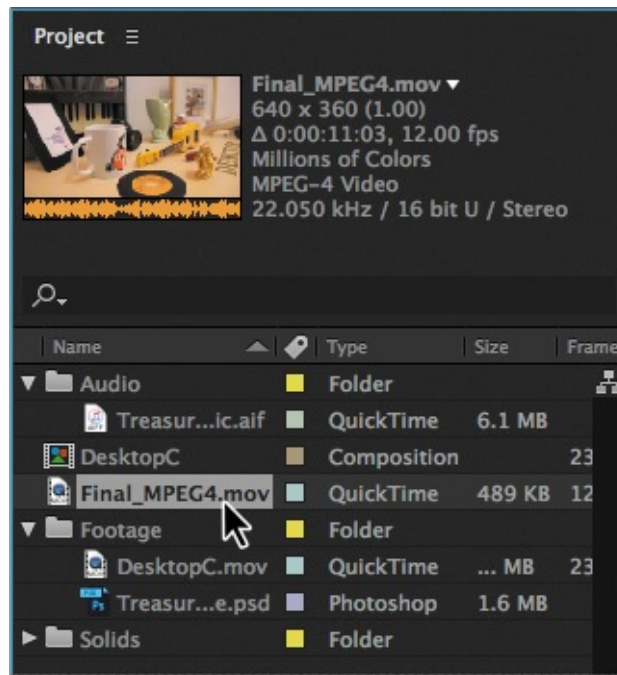
8. Choose File > Save to save your work.



9. Click the Render button in the Render Queue panel. After Effects renders the movie. If there were additional movies—or the same movie with different settings—in the queue, After Effects would render those, too.



When the processing is complete, the Final\_MPEG4 movie appears in the Project panel.



To preview the movie, double-click it in the Project panel, and then press the spacebar to view the movie.

If you need to make any final changes to the movie, reopen the composition and make those adjustments now. Remember to save your work when you finish, and then output the test movie again using the appropriate settings. After examining the test movie and making any necessary changes, you'll proceed with outputting the movie for full-resolution broadcast.

### Preparing movies for mobile devices

You can create movies in After Effects for playback on mobile devices, such as tablets and smartphones. To render your movie, add the composition to the Adobe Media Encoder encoding queue, and choose an appropriate device-specific encoding preset.

For the best results, consider the limitations of mobile devices as you shoot footage and work with After Effects. For a small screen size, pay careful attention to lighting, and use a lower frame rate. See After Effects Help for more tips.

## Rendering movies with Adobe Media Encoder

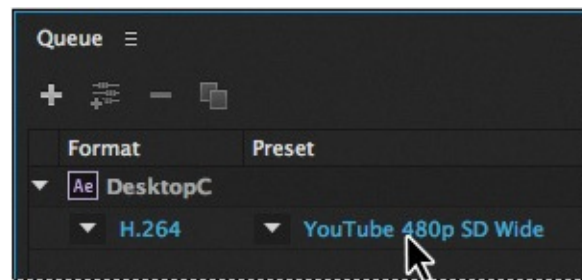
Your movie is ready for final output. Adobe Media Encoder, which is installed when you install After Effects, lets you easily render your movie in multiple high-quality formats. (If it isn't installed already, install it from Creative Cloud.)

### Rendering a broadcast-quality movie

First, you'll select settings to render your movie in a quality suitable for broadcast.

1. In the Project panel, select the DesktopC composition, and choose Composition > Add To Adobe Media Encoder Queue.

After Effects opens Adobe Media Encoder, and adds your composition with default render settings. Your default settings may vary from ours.



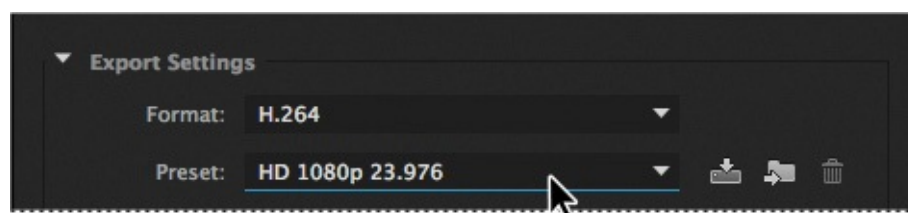
2. Click the blue link in the Preset column.

### Note

If you don't need to change anything else in the Export Settings dialog box, you can change the preset using the Preset pop-up menu in the Queue panel.

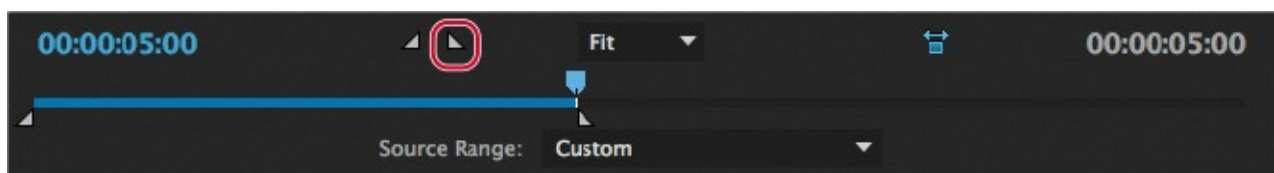
Adobe Media Encoder connects to the Dynamic Link server, which may take a few moments.

3. When the Export Settings dialog box appears, choose H.264 from the Format menu, and then choose HD 1080p 23.976 from the Preset menu.

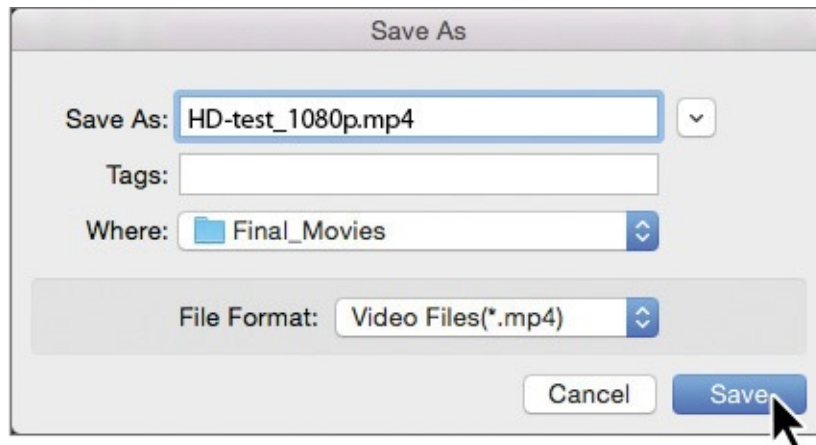


Rendering the full movie with the HD 1080p 23.976 preset may take several minutes. You'll change the settings to render only the first five seconds of the movie so that you can preview the quality. You can change the range rendered using the time ruler at the bottom of the Export Settings dialog box.

4. Move the current-time indicator to 5:00, and then click the Set Out Point button (⏮) to the left of the Select Zoom Level pop-up menu.



5. Click OK to close the Export Settings dialog box.
6. Click the blue link in the Output File column. Name the movie **HD-test\_1080p.mp4**, and specify the Lessons/Lesson14/Final\_Movies folder. Then click Save or OK.



You're ready to output this movie, but you'll set up a few additional movie options in the queue before you render it.

## Adding another encoding preset to the queue

Adobe Media Encoder comes with dozens of built-in presets suitable for output for traditional broadcast, mobile devices, and the web. You'll output a version of your composition ready for posting to YouTube.

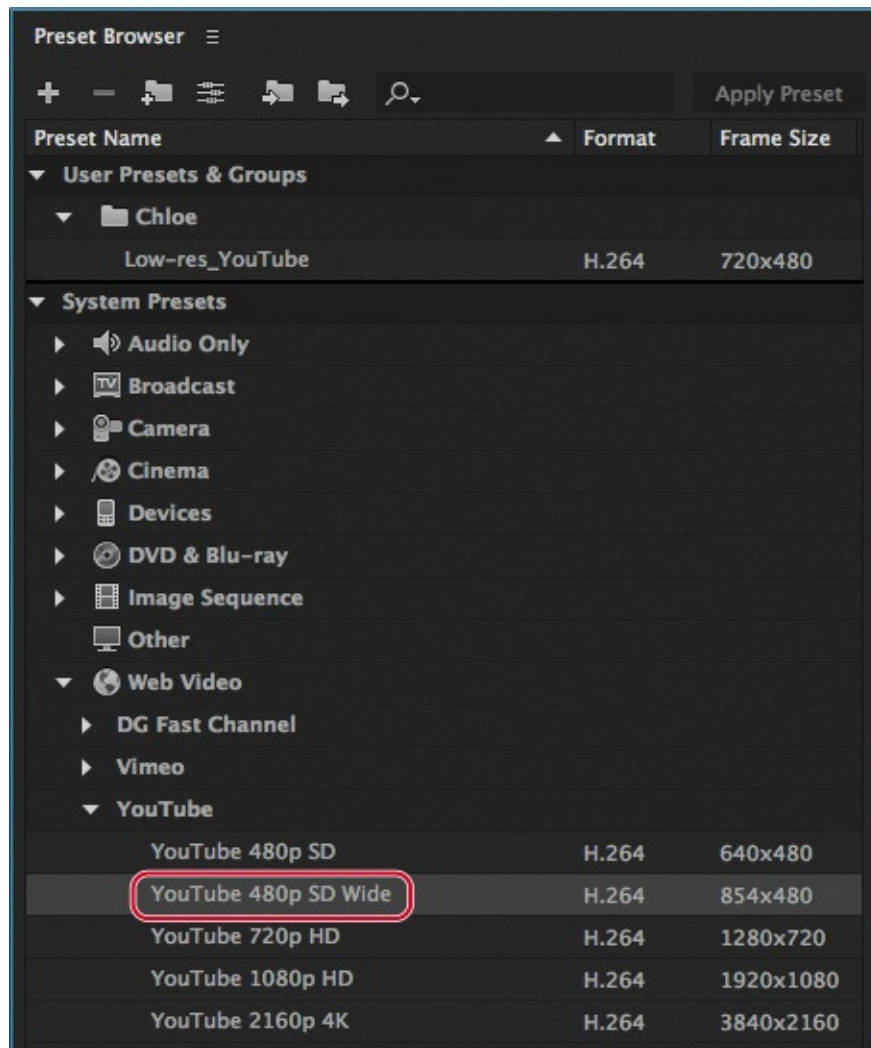
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### ► Tip

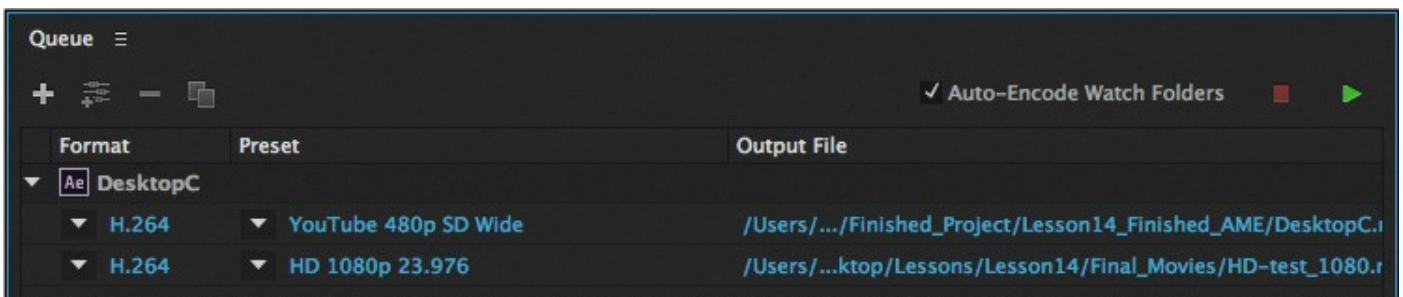
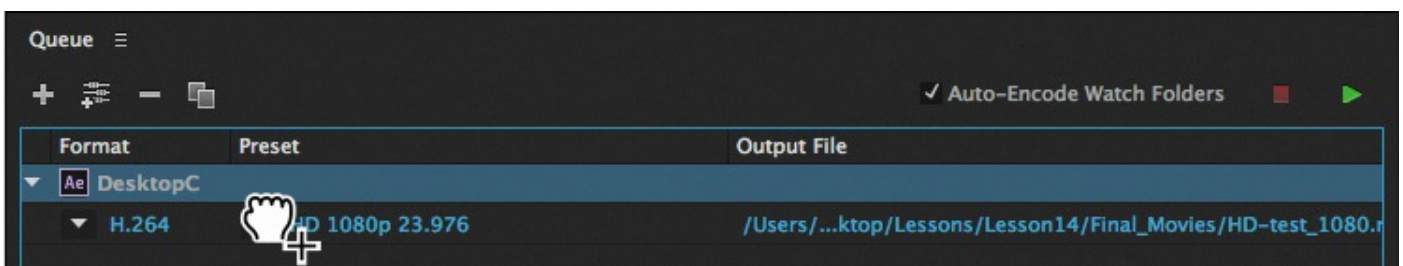
If you render files frequently, consider setting up a “watch folder.” When you place a file in the watch folder, Adobe Media Encoder automatically encodes it using the settings you've specified in the Watch Folders panel.

- 
1. In the Preset Browser panel, navigate to Web Video > YouTube > YouTube 480p SD Wide.





2. Drag the YouTube 480p SD Wide preset onto the DesktopC composition in the Queue panel.



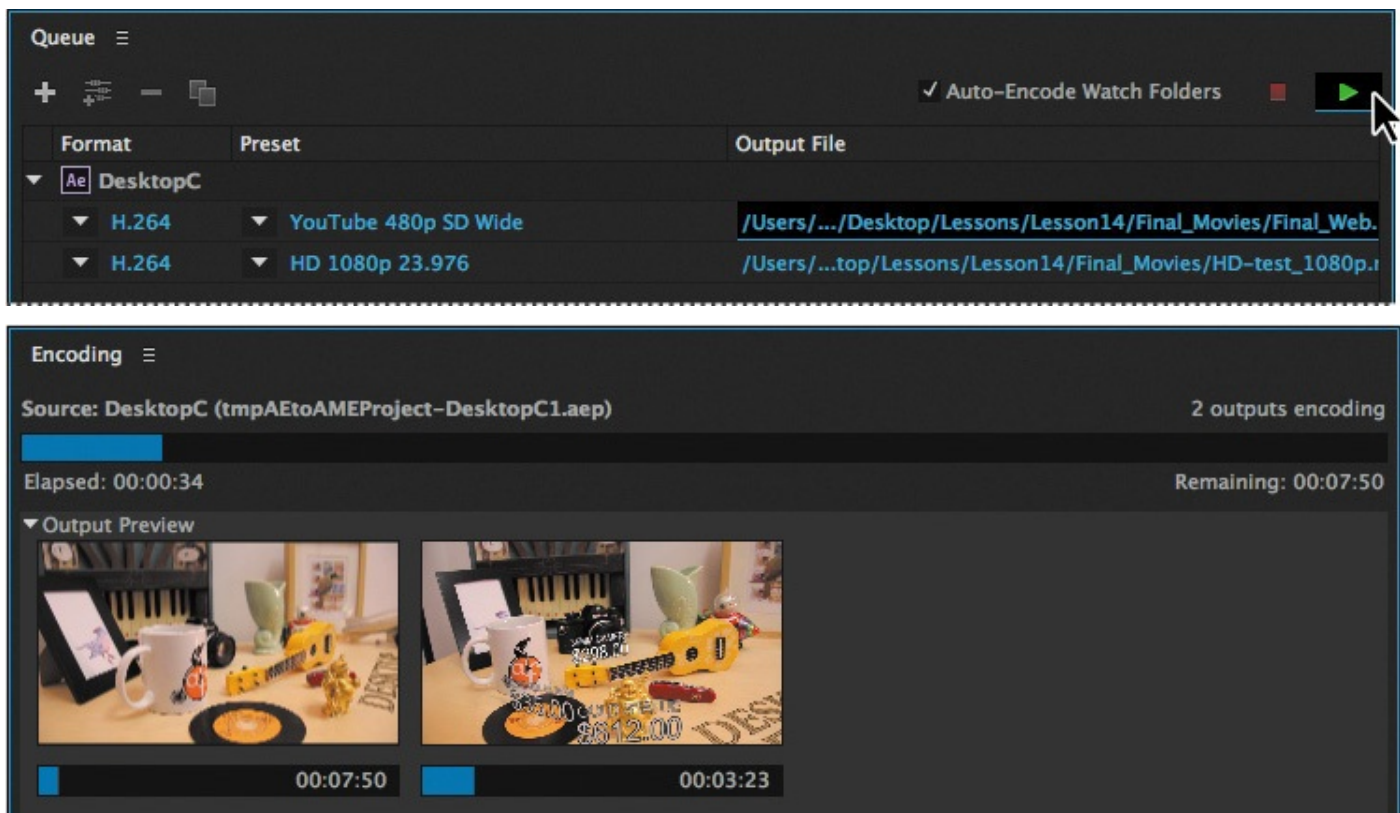
Adobe Media Encoder adds another output item to the queue.

3. Click the blue link in the Output File column for the item you just added. Then name the file **Final\_Web.mp4**, specify the Lessons/Lesson14/Final\_Movies folder, and click Save or OK.

## Rendering movies

You've set up two versions of your movie in the queue. Now you'll render and view them. Rendering is resource-intensive, and it can take a while, depending on your system, the complexity and length of the composition, and the settings you use.

1. Click the green Start Queue button (▶) in the upper right corner of the Queue panel.



Adobe Media Encoder encodes the movies in the queue simultaneously, displaying a status bar, and reporting the estimated time remaining.



Depending on your system, this may take a while.

2. When Adobe Media Encoder has finished, navigate to the Final\_Movies folder in the Finder or Explorer, and double-click your files to play them.


### ▶ Tip

If you forget where you saved your encoded movies, click the blue link in the Output File column next to the finished movie. Adobe Media Encoder opens a window to show you where your files were saved.

## Preparing a movie for broadcast output



The project you're rendering in this lesson is already high-resolution and appropriate for broadcast output. However, you may need to adjust other compositions for your intended delivery format.

To change the composition size, create a new composition with the appropriate settings for your final format. Then drag the project composition into the new composition.

If you converted the composition from a square pixel aspect ratio to a nonsquare pixel aspect ratio, which is used in broadcasting, items in the Composition panel may appear wider than before. To view the video accurately, enable *pixel aspect ratio correction*. Pixel aspect ratio correction squeezes the view of the composition slightly to display the image as it will appear on a video monitor. By default, this feature is turned off, but you can easily turn it on by clicking the Toggle Pixel Aspect Ratio Correction button (  ) at the bottom of the Composition panel. The quality of the pixel aspect ratio correction for previews is affected by the Zoom Quality preference in the Previews category of the Preferences dialog box.

## Creating custom presets for Adobe Media Encoder

In most cases, one of the default Adobe Media Encoder presets will be appropriate for your project. However, you can create your own encoding presets if you have specialized needs. In this case, you'll create a preset that renders a lower-resolution file for YouTube more quickly than the one you just encoded.

1. Click the Create New Preset Group button (  ) at the top of the Preset Browser panel, and give the group a unique name, such as your name.
2. Click the Create New Preset button (  ).
3. Do the following in the Preset Settings dialog box, and then click OK:
  - Name the preset **Low-res\_YouTube**.



Preset Settings "New Preset"

▼ Export Settings

Preset Name: Low-res\_YouTube

Format: H.264

Based on Preset: Custom

Comments:

☒ Export Video ☒ Export Audio

▼ Summary

Output: 720x480 (1.0), 29.97 fps, Progressive  
VBR, 1 pass, Target 8.00 Mbps, Max 8.00 Mbps  
AAC, 128 kbps, 48 kHz, Stereo

EffectsVideoAudioMultiplexerCaptionsPublish

▼ Basic Video Settings

Match Source

Width: 720

Height: 480

↔

Frame Rate: 29.97

Field Order: Progressive

Aspect: Square Pixels (1.0)

TV Standard: Based On Source

Profile: Baseline

Level: 3.0

☐ Render at Maximum Depth

▼ Bitrate Settings

Bitrate Encoding: VBR, 1 pass

EffectsVideoAudioMultiplexerCaptionsPublish

▼ Audio Format Settings

Audio Format: AAC

▼ Basic Audio Settings

Audio Codec: AAC

Sample Rate: 44100 Hz

Channels: Stereo

☐ Parametric Stereo

Audio Quality: Medium

- Make sure H.264 is chosen from the Format menu.
  - Choose YouTube 480p SD Wide from the Based On Preset menu.
  - Select the Video tab, if it's not already selected.
  - For Frame Rate, deselect Based On Source.
  - Choose Baseline from the Profile menu. (You may need to scroll down to see it and the following options.)
  - Choose 3.0 from the Level menu.
  - Make sure VBR, 1 Pass is chosen from the Bitrate Encoding menu.
  - Click the Audio tab, and choose 44100 Hz from the Sample Rate menu and Medium from the Audio Quality menu.
4. Drag the Low\_res\_YouTube preset onto the DesktopC composition in the Queue panel.
  5. Click the blue link in the Output File column. Then name the file **Lowres\_YouTube**, specify the Lessons/Lesson14/Final\_Movies folder, and click Save or OK.
  6. Click the Start Queue button (▶).

With the settings in your new preset, the movie encodes more quickly. However, the quality isn't as high.

7. When Adobe Media Encoder has finished, navigate to the Final\_Movies folder in Explorer or the Finder, and double-click the Lowres\_YouTube movie to view it.

You have created both a web version and a broadcast version of the final composition.

Congratulations! You have completed all the lessons in *Adobe After Effects CC Classroom in a Book (2015 release)*.

While this book is intended to give you a good foundation for working with After Effects, it can't cover everything. To continue learning about After Effects, check out the resources described in the Getting Started section at the beginning of the book.

## Review questions

1. Name two types of templates you can create for use in the Render Queue panel, and explain when and why to use them.
2. What is compression, and what are some things you should consider when compressing files?
3. How can you output a movie using Adobe Media Encoder?

## Review answers

- 1.** In After Effects, you can create templates for both render settings and output-module settings. These templates are presets that you can use to streamline the setup process when you render items for the same type of delivery format. After you define these templates, they appear in the Render Queue panel on the appropriate pop-up menu (Render Settings or Output Module). Then, when you're ready to render a job, you can simply select the template that is appropriate for the delivery format that your job requires, and the template applies all the settings.
- 2.** Compression is essential to reduce the size of movies so that they can be stored, transmitted, and played back effectively. When exporting or rendering a movie file for playback on a specific type of device at a certain bandwidth, you choose a compressor/decompressor, or codec, to compress the information and generate a file readable by that type of device at that bandwidth. A wide range of codecs is available; no single codec is the best for all situations. For example, the best codec for compressing cartoon animation is generally not efficient for compressing live-action video. When compressing a movie file, you can fine-tune it for the best quality playback on a computer, a video playback device, the web, or from a DVD player. Depending on which encoder you use, you may be able to reduce the size of compressed files by removing artifacts that interfere with compression, such as random camera motion and excessive film grain.
- 3.** To output a movie using Adobe Media Encoder, select the composition in the Project panel in After Effects, and then choose Composition > Add To Adobe Media Encoder Queue. In Adobe Media Encoder, select an encoding preset and any other settings, name the output file, and click the Start Queue button.

## Appendix: General keyboard shortcuts

Result	Windows	Mac OS
Select all	Ctrl+A	Command+A
Deselect all	F2 or Ctrl+Shift+A	F2 or Command+Shift+A
Rename selected layer, composition, folder, effect, group, or mask	Enter on main keyboard	Return on main keyboard
Open selected layer, composition, or footage item	Enter on numeric keypad	Enter on numeric keypad
Move selected layers, masks, effects, or render items down (back) or up (forward) in stacking order	Ctrl+Alt+Down Arrow or Ctrl+Alt+Up Arrow	Command+Option+Down Arrow or Command+Option+Up Arrow
Move selected layers, masks, effects, or render items to bottom (back) or top (front) of stacking order	Ctrl+Alt+Shift+Down Arrow or Ctrl+Alt+Shift+Up Arrow	Command+Option+Shift+Down Arrow or Command+Option+Shift+Up Arrow
Extend selection to next item in Project panel, Render Queue panel, or Effect Controls panel	Shift+Down Arrow	Shift+Down Arrow
Extend selection to previous item in Project panel, Render Queue panel, or Effect Controls panel	Shift+Up Arrow	Shift+Up Arrow
Duplicate selected layers, masks, effects, text selectors, animators, puppet meshes, shapes, render items, output modules, or compositions	Ctrl+D	Command+D
Quit	Ctrl+Q	Command+Q
Undo	Ctrl+Z	Command+Z
Redo	Ctrl+Shift+Z	Command+Shift+Z
Purge All Memory	Ctrl+Alt+/ (on numeric keypad)	Command+Option+/ (on numeric keypad)
Interrupt running a script	Esc	Esc