MAKE AN ANIMATED GIF WITH AFTER EFFECTS AND PHOTOSHOP

STEP BY STEP TRAINING

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EDITION 1.1

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Exercise Preview

Exercise Overview

In this exercise, you'll create a short animation in After Effects and convert it to an animated GIF using Photoshop.

This exercise was written for people with no or little experience with After Effects. Our aim is to teach you important fundamental concepts of how to animate in After Effects. In some cases there are other ways to do things (which are often more advanced), but we chose to keep it simple for beginners!

Getting Started

1. Launch After Effects CC 2017. (These instructions were written for version 14.2.1.)

2. Close the start screen if it appears.

   You can create designs in After Effects, but people commonly create the layout in Photoshop or Illustrator and then use After Effects to animate it. We created a design in Photoshop. Before we import it, we must ensure After Effects will create compositions that are the correct length. After Effects defaults to the length of a previous composition, so we'll create a dummy composition with the correct length.

3. Go to **Composition > New Composition**.

4. We don't care about most of these settings. You only need to set the following:

   Frame Rate: **30**

   Duration: **30:00** This assumes After Effects is showing you Time Code (which looks like 0:00:30:00). If you're seeing frame numbers instead (a number with no colons, such as 00500), then enter **500**.

5. Click **OK**.

6. In the **Project** panel (at the top left of the window) click on **Comp 1** (the composition you just made).

7. Hit the **Delete** key to remove it.

8. Now we can import our design (a Photoshop file). Choose **File > Import > File**.

9. Navigate to the **Animated GIF with After Effects Files** folder that was included with this exercise, then go into the **Classes in a Day** folder.

10. Double–click on **PSD Layout.psd** to choose it.

11. In the dialog that appears, set the following options:

   • Import Kind: **Composition - Retain Layer Sizes**

   • Layer Options: **Editable Layer Styles**

12. Click **OK**.

13. In the **Project** panel (at the top left of the window) you should see a **PSD Layout** composition and a **PSD Layout Layers** folder.

14. **Double–click** the **PSD Layout** composition to open it in the **Timeline**.

15. At the bottom of the window you should see the **Timeline**. At the top left of the Timeline, the current time display will be showing either Timecode (**0:00:00:00**) or Frames (**00000**).

   We want it to display Frames (**00000**), so if it's displaying Timecode (**0:00:00:00**), hold **Cmd** (Mac) or **Ctrl** (Windows) and click on it to toggle it to Frames (**00000**).

16. Go to **Composition > Composition Settings**.

17. Most of the settings will already be correct, but make sure you set the following:

   Resolution: **Full**

     Duration: **500**

   Why 500? After creating the animation in After Effects, we'll take it into Photoshop to export the final animated GIF. Photoshop cannot export animated GIFs longer than 500 frames, so we're using 500 frames as the maximum length. 500 frames at 30 fps (frames per second) will give us over 16 seconds, which is plenty of time. We will trim off the extra time when we're done creating the animation.

18. Click **OK**.

19. Let's save this After Effects project. Choose **File > Save** and:

   • Navigate to **Animated GIF with After Effects Files > Classes in a Day**.

   • Save the project as **classes-in-a-day.aep**.

> **How Photoshop Artboards & Groups Import into After Effects**
>
> When creating this Photoshop file, we unchecked the **Artboards** option in Photoshop's **File > New** dialog. If we had used an artboard, it would appear as a nested composition in After Effects. That's not a problem, but avoiding artboards keeps the file cleaner for importing in After Effects. Also, if we were creating the animated GIF solely in Photoshop, we can't use multiple artboards, because Photoshop's **Save for Web** doesn't support them.
>
> Photoshop layer groups are also imported as nested compositions, which can be helpful when animating multiple layers at once!

Animating In the Class Names

We'll start by animating the list of class names, so that each class name falls in from the top and then the entire list slides left.

1. In the Timeline, double–click on **Class Names** to open that composition.

2. At the top of the Timeline notice there is a blue **playhead** (called the **Current Time Indicator**).

3. Drag the playhead to **frame 15**. (Watch the current time display at the top left of the Timeline to make sure it says **00015**.)

4. Click on the **SEO** layer name to select the layer.

5. Hold **Shift** and click on the **UX Design** layer so all the layers are selected.

6. In the **Timeline**, to the left of **SEO**, click the triangle to expand all the layers.

7. Under **SEO**, click the triangle next to **Transform** to expand the Transform under the SEO layer.

8. Click the **stopwatch** next to the **Position** property to add a keyframe (at the current frame 15) for all the layers (because they are all selected).

9. Move the playhead back to **frame 0**.

10. The **Position** property has two comma-separated values. The first value is the **x-axis** position (left/right) and the second value is the **y-axis** position (up/down).

    Hover over the **second value** (y-axis position) and drag left until the class names move up and out of the frame on the top (around **–240**).

    NOTE: By changing the value of a property that already had keyframes, After Effects automatically added a new keyframe at the current playhead position.

11. Hit **Spacebar** to preview the animation. The text should slide down into position.

12. Hit **Spacebar** again to stop the playback.

13. Click the triangle ▶ to the left of the **SEO** layer to collapse all the selected layers.

14. Click in a blank area of the Timeline to deselect the layers.

15. Currently all the class names slide in at the same time, but we want them to slide in one after the other. We can do this by offsetting each individual class name animation by a few fames. Move the playhead back to **frame 0**.

16. Hit **Cmd–Right Arrow** (Mac) or **Ctrl–Right Arrow** (Windows) **3 times** to move the playhead forward 3 frames. The Current Time Display should show **00003**.

    TIP: Instead of holding **Cmd** (Mac) or **Ctrl** (Windows) and using the **Left Arrow** and **Right Arrow** keys to move the playhead, you could use **Page Up** and **Page Down** if you prefer.

17. The bottom layer (**UX Design**) is the bottom class in the list. We want that to come in first, so we'll keep that starting at frame 0. Moving up the list, select the **Adobe XD** layer.

18. Hit the **[** key (left square bracket) to snap the layer to the current playhead position.

19. Again, hit **Cmd–Right Arrow** (Mac) or **Ctrl–Right Arrow** (Windows) **3 times** to move the playhead forward 3 frames. The Current Time Display should show **00006**.

20. Select the **HTML Email** layer.

21. Hit the **[** key (left square bracket) to snap the layer to the playhead.

22. Repeat this process for the remaining layers (so your Timeline ends up as shown below). Here's a quick review of the steps:

    • Hit **Cmd–Right Arrow** (Mac) or **Ctrl–Right Arrow** (Windows) **3 times** to move the playhead.

    • Select the next layer (moving up the list).

    • Hit the **[** key.
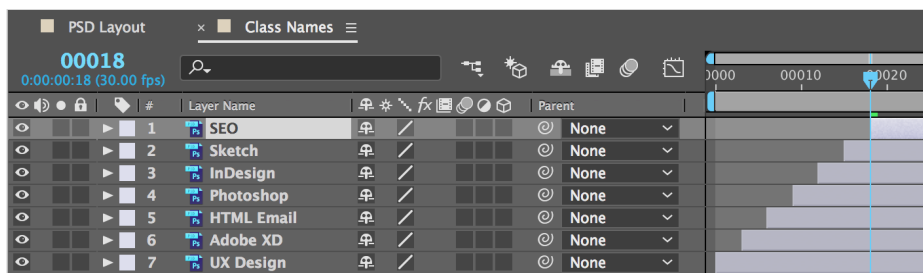
23. Move the playhead to **frame 0**.

24. Hit **Spacebar** to preview the animation. That looks much more interesting!

25. Hit **Spacebar** again to stop the playback.

Adding Easing

Currently the text starts animating, moves at a constant speed, and abruptly stops. Objects in real life typically don't come to such an abrupt stop, they tend to slow down before stopping. That's called easing. Let's add some easing, so the animation slows down (goes easy) at the end.

1. We need to select all the layers so we can show their keyframes. We should be focused on the Timeline panel (it has a blue highlight around it), so hit **Cmd–A** (Mac) or **Ctrl–A** (Windows) to select all the layers.

2. Press the **U** key to show the keyframes ◆ for the selected layers.

   NOTE: This keystroke shows any kind of keyframe (in our case it's Position, but it works for others as well). To help you remember the **U** key, think of it as a **u**niversal keystroke that shows all types of keyframes!

3. Hold **Shift** and click on the **end** keyframe for each layer, so you have the 7 end keyframes selected (as shown below).

   TIP: Instead of clicking on each keyframe, you can drag a selection box around keyframes. Be careful to start dragging in an empty space of the Timeline, and make sure you do not include the start keyframes. You won't be able to select all the end keyframes in one drag. To add keyframes to a selection, hold **Shift** when dragging.
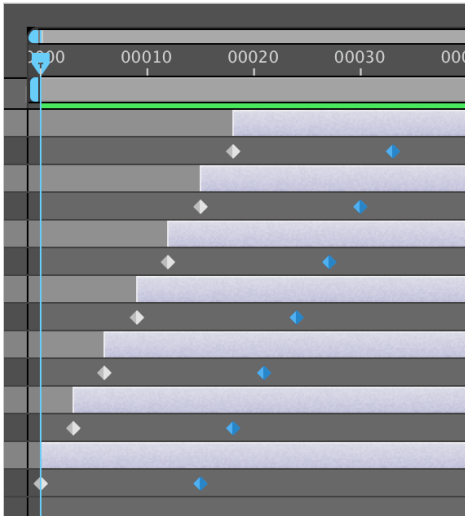
4. **Ctrl–click** (Mac) or **Right–click** (Windows) on any of the selected keyframes and choose **Keyframe Assistant > Easy Ease**.

   NOTE: The end keyframes should now be an hourglass shape instead of a diamond, which indicates they have an easing applied.

5. With all the layers still selected, press the **U** key again to hide the keyframes.

6. Move the playhead to **frame 0**.

7. Hit **Spacebar** to preview the animation, paying attention to the speed. The names slow down a bit before they stop. It's a subtle change, but we think it looks better.

8. Hit **Spacebar** again to stop the playback.

   Feel free to scrub through the animation using the playhead to get a better look at what's happening.

Sliding Over the Entire Class List

1. At the top left of the Timeline, switch back to the **PSD Layout** composition by clicking on its name as shown below:
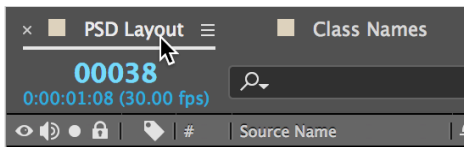
2. Let's hide the other elements so we can focus on the class names. In the Timeline, hide the **Class Icons** and **In A Day** layers by clicking the eye 👁 to their left.

3. Move the playhead to **frame 50**. Instead of dragging the playhead, you can jump there directly as follows:

   • Click on the Current Time Display at the top left of the Timeline.

   • Type **50**

   • Hit **Return** (Mac) or **Enter** (Windows).

4. In the Timeline, expand the **Class Names** layer (by clicking its triangle).

5. Expand **Transform**.

6. Click the **stopwatch** ⏱ next to the **Position** property to set a keyframe at frame 50.

7. Move the playhead to **frame 43**.

   NOTE: Why frame 43? The class names are done sliding down on frame 33. We want to wait a moment before moving them left. We thought waiting until frame 43 was enough time.

8. Hover over the first value of **Position** (x-axis position) and drag right so the text is almost centered in the frame (around **400**).

9. Let's add easing. **Ctrl–click** (Mac) or **Right–click** (Windows) on the **end** keyframe (at frame 50) and choose **Keyframe Assistant > Easy Ease**.

   This will make the class names slow down near the end of their animation.

10. Move the playhead to **frame 0**.

11. Hit **Spacebar** to preview the animation. The classes fall in the from the top and then slide left together. Nice!

12. Hit **Spacebar** again to stop the playback.

13. Collapse the **Class Names** layer.

Animating the Icons

1. Move the playhead to **frame 50**.

2. Show the **Class Icons** layer by clicking the box in the eye 👁 column.

3. Expand the **Class Icons** layer, then expand **Transform**.

4. Click the **stopwatch** ⏱ next to the **Position** property to set a keyframe at frame 50.

5. Move the playhead to **frame 43**.

6. Hover over the first **Position** value (x-axis position) and drag left until the icons are out of the frame on the left side (around **230**).

7. **Ctrl–click** (Mac) or **Right–click** (Windows) on the **end** keyframe (at frame 50) and choose **Keyframe Assistant > Easy Ease**.

8. Click the **stopwatch** ⏱ next to the **Opacity** property to set a keyframe at frame 43.

9. Change **Opacity** to **0%**.

10. Move the playhead to **frame 50**.

11. Change **Opacity** to **100%**.

12. Preview the animation. The icons fade in as they slide right to meet the classes. Nice!

13. Collapse the **Class Icons** layer.

Animating the "In a Day" Title

1. Move the playhead to **frame 50**.

2. Show the **In A Day** layer by clicking the box in the eye 👁 column.

3. Expand the **In A Day** layer, then expand **Transform**.

4. Click the **stopwatch** ⏱ next to the **Position** property to set a keyframe at frame 50.

5. Move the playhead to **frame 43**.

6. Hover over the first **Position** (x-axis position) and drag right until the blue square with text is out of the frame on the right side (around **620**).

7. **Ctrl–click** (Mac) or **Right–click** (Windows) on the **end** keyframe (at frame 50) and choose **Keyframe Assistant > Easy Ease**.

8. Preview the animation. Looks great!

9. Collapse the **In A Day** layer.

Adding Motion Blur

The animation is looking good, but adding motion blur as a finishing touch can help it look more smooth and natural.

1. Near the top of the Timeline click the **Motion Blur** button ⚪ to enable motion blur for the project.
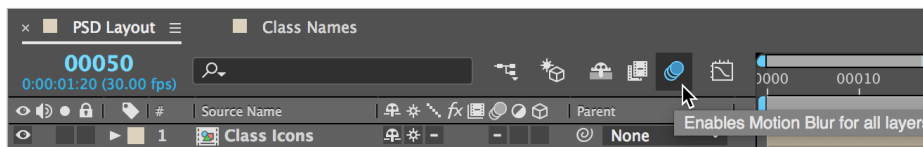
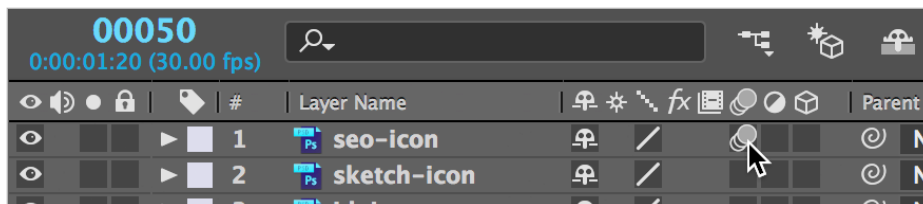2. Even though we enabled motion blur for the entire project, we must also enable motion blur on each layer. **Double–click** on the **Class Icons** layer to open the composition.

3. Each layer has a motion blur switch we need to check on. As shown below, click the motion blur switch for the first layer (**seo-icon**). If you don't see the button, see the note below.

NOTE: Don't see the button? At the bottom left of the Timeline, click the **Expand or Collapse the Layer Switches pane** button 🗗.

4. We also have to turn motion blur on for the other layers, but instead of individually clicking the button for each layer, drag down across the empty motion blur boxes for the other layers to enable motion blur on them all with a single drag!

5. Switch back to the **PSD Layout** composition (by clicking on its name at the top of the Timeline).

6. Double–click on the **Class Names** layer to open that composition.

7. Drag across the empty motion blur boxes for all the layers to enable it.

8. Switch back to the **PSD Layout** composition.

9. One more to go! Double–click on the **In A Day** layer to open that composition and:

   • Enable motion blur by dragging across the empty motion blur boxes.

   • Switch back to the **PSD Layout** composition.

10. Preview the animation. Smoother!

Trimming Off Extra Time

We have just one more change. The animation is currently 500 frames long which is longer than we need for this animation. Our final animated GIF will loop, so we need enough time for people to read the text after the animation finishes. Leaving about 4 seconds after the action ends, puts us at frame 170.

1. Go to **Composition > Composition Settings**.

2. Next to **Duration** type **170** (it will become **00170**).

3. Click **OK**.

4. This animation is complete, so do a **File > Save**.

Exporting from After Effects

We can't export an animated GIF directly from After Effects, but we can from Photoshop. To move our work from After Effects into Photoshop, we will export all the frames as separate PNG files. Let's see how to do that.

1. Go to **Composition** and click **Add to Render Queue**.

2. In the **Render Queue** panel that appears, next to **Output Module** click **Lossless**.

3. In the **Output Module Settings** dialog that opens, set **Format** to **PNG Sequence**.

4. Click **OK**.

5. Next to **Output To** click **Not yet specified** or the **file name**.

6. Navigate to **Animated GIF with After Effects > Classes in a Day**.

7. Make sure **Save in subfolder** is checked on.

8. Click **Save**.

9. At the top right of the **Render Queue** panel, click **Render**.

   A progress bar at the top of the **Render Queue** panel will show the rendering progress, which should not take long for a short animation like this.

Making the Animated GIF in Photoshop

1. Launch Photoshop CC 2017.

2. Go to **File > Open.**

3. Navigate to **Animated GIF with After Effects Files > Classes in a Day > PSD Layout**.

4. Notice there are 170 PNG images numbered 00000 through 00169.

5. Click once on **PSD Layout_00000.png** (the first frame).

6. Check on **Image Sequence**. Mac users may need to click the **Options** button to the **Image Sequence** option.

7. Click **Open**.

8. In the dialog that appears, set **Frame Rate** to **30 fps**.

9. Click **OK**.

10. If the **Timeline** panel is not visible, go to **Window > Timeline** to open it.

11. At the top of the **Timeline** panel click the **Gear** icon (for **Set playback options**) and:

    • Set **Resolution** to **100%**.

    • Click the **Gear** icon again to close the options.

12. Hit **Spacebar** to preview the animation.

Reducing the Number of Frames

Photoshop cannot export animated GIFs longer than 500 frames. In this case, we're well under the 500-frame limit, but we'll show you a technique for reducing the number of frames in case your animation ever exceeds 500 frames.

1. At the top right of the Timeline panel, go into the panel menu ▤ and choose **Panel Options**.

2. Set **Timeline Units** to **Frame Number**.
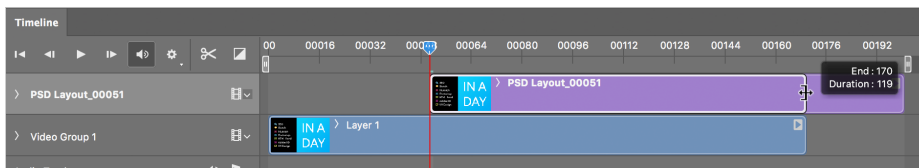
3. Click **OK**.

    At the bottom left of the Timeline the current time display now shows frames (**0**) instead of timecode (**0:00:00:00**).

4. In the Timeline, drag the playhead to the start of the animation (frame 0).

5. Go to **File > Export > Save for Web (Legacy)**.

6. At the top right of the window, set the file format to **GIF**.

7. On the right side of the window, at the bottom of the options, notice it says **1 of 170**, indicating that the exported GIF will contain 170 frames.

8. Click **Done**.

9. If the timeline is too zoomed out, it will be hard to scrub through the timeline precisely. At the bottom of the Timeline is a slider that controls the timeline's zoom. Adjust the slider so **Layer 1** in the timeline fills at least the width of the Timeline panel (you can adjust it again later if needed).

10. Drag the playhead until you find the frame where the animation stops moving (which should be frame **51**).

    Pay close attention! There is some nearly imperceptible movement between frames 50 and 51, which means frame 51 is the frame we're looking for. Frames 51–169 are identical because no movement happened during those frames.

11. In the **Layers** panel, select **Video Group 1** (not Layer 1).

12. Go to **File > Place Embedded**.

13. Navigate to **Animated GIF with After Effects Files > Classes in a Day > PSD Layout**.

14. Double–click on **PSD Layout_00051.png** to place it.

15. Hit **Return** (Mac) **Enter** (Windows) to accept the current size.

16. As shown below, in the Timeline, drag the end of the **PSD Layout_00051** clip until it's flush with the end of the **Layer 1** clip. Be careful not to drag the entire clip, drag only the end.

17. Select the **Layer 1** clip in the Timeline.

18. Make sure the playhead is still at frame 51.

19. Near the top left of the Timeline, click the **Split at Playhead** button ✂.

20. In the Timeline, click on **Layer 1 copy**.

21. Hit **Delete** to remove it.

22. Go to **File > Export > Save for Web (Legacy)**.

23. Make sure the file format is still set to **GIF**.

24. At the bottom right of the window, notice it now says **52 of 52** (previously it was 1 of 170). The duplicate frames at the end of our animation have been merged into a single frame!

25. Set **Looping Options** to **Forever**.

26. At the top right of the window, set the following options. We think they are a good balance of image quality and file size for this animation.
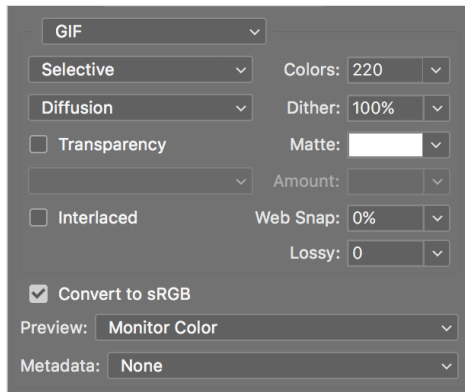
27. Click **Save**.

28. Name the file **classes-in-a-day.gif** and save it into **Animated GIF with After Effects Files > Classes in a Day** folder.

    NOTE: We don't need to save the current won't need it now that we have the GIF.

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