

How to use the Motion effect

You will frequently use various effects in Premiere Pro to add dynamic action and visual interest to your video productions. This guide provides a gentle introduction to effects, you will work with other, more advanced video and audio effects in later projects.

A fundamental effect in your repertoire is the Motion effect; this option lets you enhance static and moving images by changing a clip's size, creating movement onto, across, or off the screen, and adding rotation. You can easily make these adjustments using the Effect Controls panel (**Figure 1**).

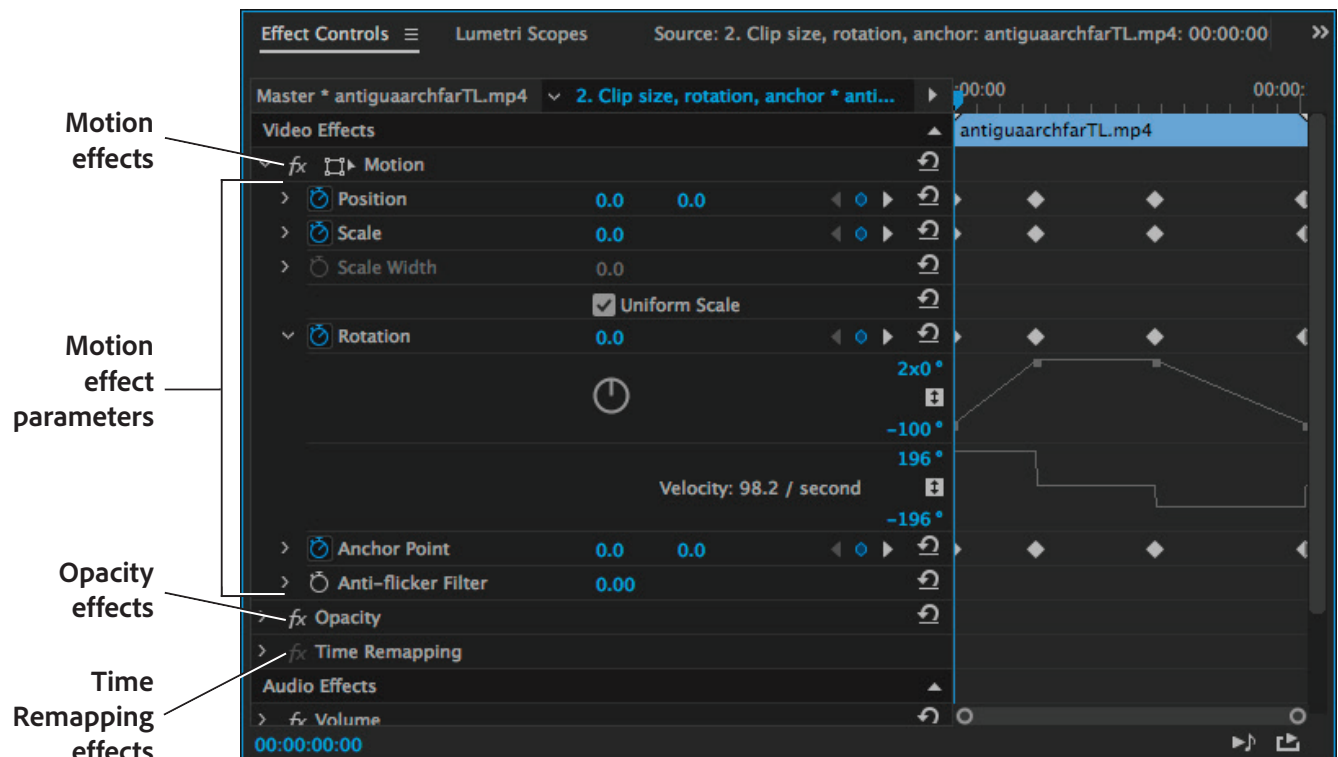


Figure 1 Effects Controls panel

For more advanced effect creation, editing tasks and smooth round-trip editing with Premiere Pro, consider using Adobe After Effects, a dedicated digital visual effects, motion graphics, and compositing application. For more information and tutorials, please see Adobe Help for [After Effects](#). To complete the tasks in this guide, you only need to have one video clip. Use your own files, or download the assets used in [this tutorial here](#). It's best if you perform these tasks sequentially as they build one on the next.

About the Motion effect

The Motion effect is one of dozens of special visual effects available in Premiere Pro. Motion effects can be applied using the Effect Controls panel. The Effect Control panel has six motion options that you will use to change the effect's behavior over time by using keyframes. Here's an overview of the available options:

- *Position*: The screen location of the clip's anchor point. By default, the anchor point position is always in the object's center unless you actively change its anchor location.
- *Scale* (changes to *Scale Height* if Uniform Scale is not selected): Refers to the size of the clip. The slider has a range from 0% to 100%, but you can use the numerical representation to increase the clip size to 600% of the original size. The Scale percent refers to the clip perimeter, not its area. For example, selecting 50% creates a quarter-screen size clip. That is, each edge of the clip shrinks to one-half its original length, reducing its area to 25% of its original size. Selecting 25% (each side is one-fourth its original size) means the clip area shrinks to 6.25% (or one-sixteenth) of its original size.
- *Scale Width*: Deselect Uniform Scale to make Scale Width active. This lets you change the clip width and height independently.
- *Rotation*: Rotates the clip around its anchor point (its center unless you change the anchor point position). The maximum number of rotations allowed in either direction is 90. Rotation values are represented by degrees, number of rotations, or a combination of both. For example, the rotation value for a 450° counterclockwise rotation is $(-1) \times (-90)$ —one full counterclockwise rotation plus one-quarter counterclockwise rotation. Negative values are counterclockwise, positive values are clockwise.
- *Anchor Point*: The center of the rotation (the default setting is the center of the clip). You can set the clip to rotate around any point in the clip or screen, including a clip's corner, or around a point outside the clip like a ball at the end of a string.
- *Anti-flicker Filter*: Useful for images that contain high-frequency detail such as fine lines, hard edges, parallel lines (moiré problems), or rotation. Those characteristics can cause flickering during motion. The default setting (0.00) adds no blurring and has no effect on flicker. Set the Anti-flicker Filter value to 1.00. That adds some blurring, which helps eliminate flicker.

Examining Motion effect characteristics

When you open the Effect Controls panel, you see that three video effects are automatically applied to all video clips. These include Motion, Opacity, and Time Remapping (**Figure 1**). In this task you examine the Motion effect controls.

To view the video motion effects characteristics:

1. Start Premiere Pro, start a project, import a video clip, and drag that clip to the Video 1 track in the Timeline panel.
2. Click **Effects** in the workspace bar at the top of the screen (**Figure 2**).

The workspace layout and panels are rearranged. The **Effects Control** panel opens on the left side of the application interface.

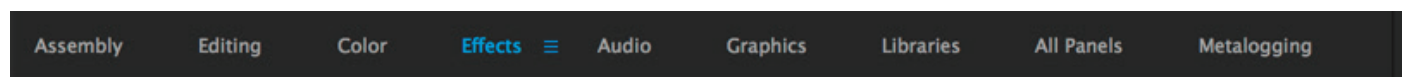


Figure 2 Workspace panel

3. Drag the CTI anywhere in the clip to display the clip in the **Program Monitor**.
4. In the **Program Monitor**, select **25%** from the View Zoom Level menu (**Figure 3**).

Shrinking the clip display makes working with the **Motion** effect in the **Program Monitor** easier.

5. If the **Effect Controls** time ruler is not visible, click the Show/Hide Timeline View button (**Figure 4**).

Note: If the Show/Hide Timeline View button is not visible and active, widen the panel.

6. Double-click the clip inside the **Program Monitor** screen to select the clip.

Note: Be careful not to move the clip when you select it. If you do, select **Edit > Undo** and try again.

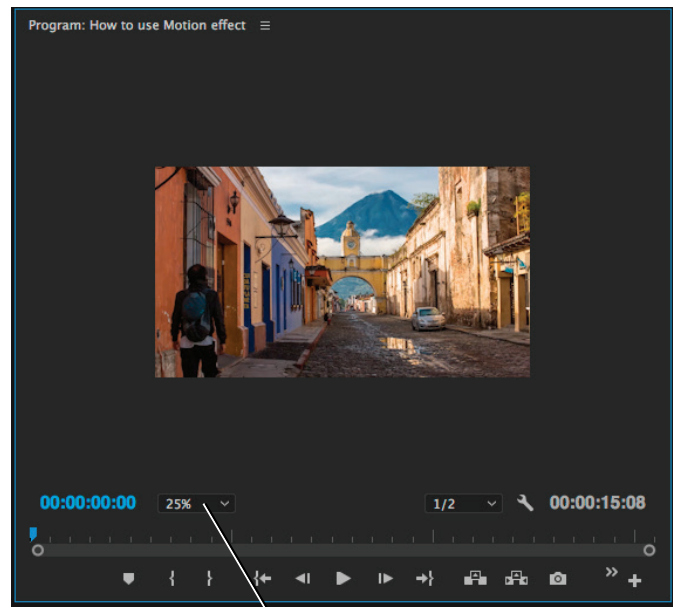
A bounding box appears around the clip (**Figure 5**). The box includes a centered anchor-point cross hair and handles.

The **Motion** effect is now activated (highlighted—white letters on a gray background) in the **Effect Controls** panel. With the **Motion** effect activated, any change you make to the clip in the **Program Monitor** shows up in the **Effect Controls** panel.

Note: Clicking **Motion** in the **Effect Controls** panel is the other way to activate the effect.

7. In the **Effect Controls** panel, click the disclosure triangle to expand the **Motion** effect parameters, if not already open.

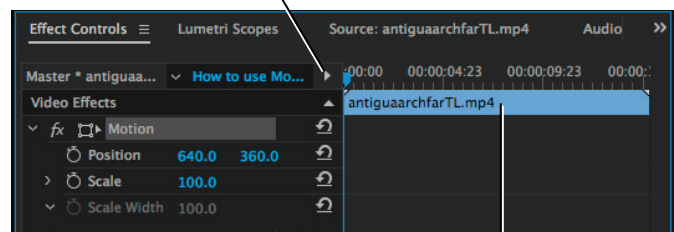
Note: The **Motion** effect parameters are **Position**, **Scale**, **Scale Width**, **Rotation**, **Anchor Point**, and **Anti-flicker Filter**. You work with all but **Anti-flicker Filter** in this guide.



View Zoom Level menu

Figure 3 Program Monitor

Show/Hide Timeline View button



Timeline View

Figure 4 Effect Controls panel

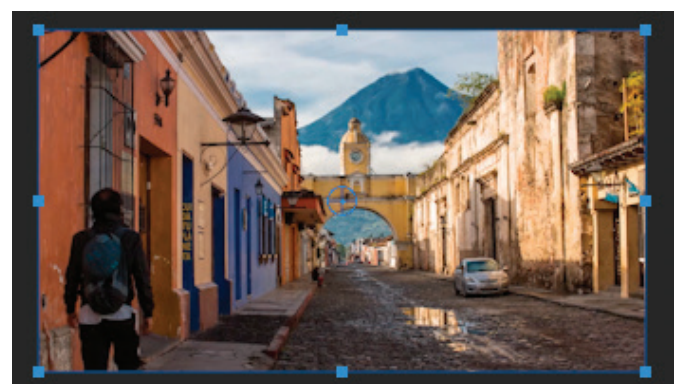


Figure 5 Motion effect bounding box and handles in Program Monitor

Setting and adjusting Motion effect Position values and keyframes

Use the Program Monitor and the Effect Controls panel to set and adjust video motion effects.

To set and adjust Motion effect Position values and keyframes:

1. Continue where you left off in the previous task.
2. Click anywhere on the clip in the **Program Monitor**, drag this clip around, and note how the **Position** values in the **Effect Controls** panel change.
3. Drag the clip until its anchor-point cross hair is directly over the upper-left corner of the screen (**Figure 6**).

Note: The **Position** values in the **Effect Controls** panel should be **0.0, 0.0** (or close to that, depending on where you placed the center of the clip).

4. Drag the clip to the lower-right corner of the screen.

The **Position** values change to **1280.0, 720.0**, the standard HD screen size (1280 x 720 pixels).

Note: Premiere Pro uses an upside-down X/Y axis for screen location. The upper-left corner is 0, 0. X and Y values to the left and above that point, respectively, are negative. X and Y values to the right and below that point, respectively, are positive.

5. Drag the clip off the screen to the left (**Figure 7**).
6. Fine-tune that adjustment by changing the **Position** values in the **Effect Controls** panel to **-640, 380**.

The center of the clip is now 640 pixels to the left of the screen frame. Because 640 is half of 1280 (a full clip width), the right edge of the clip lines up with the left edge of the screen frame.

7. In the Timeline panel, drag the CTI to the beginning of the clip.
8. In the **Effect Controls** panel, switch on the **Position** parameter keyframes mode by clicking the Position Toggle Animation button—a stop watch icon (**Figure 8**).

A small line appears in the stopwatch icon, and a keyframe is added in the **Effect Controls** time ruler.

9. In the Timeline panel, drag the CTI to the center of the clip.
10. In the **Program Monitor**, drag the clip to center it on screen.
11. In the **Effect Controls** panel, fine-tune the clip's location by setting the Position values to **640, 380**.

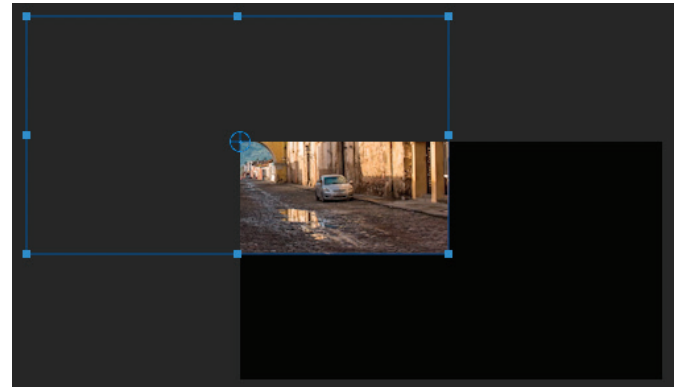


Figure 6 Motion effect bounding box in the Program Monitor

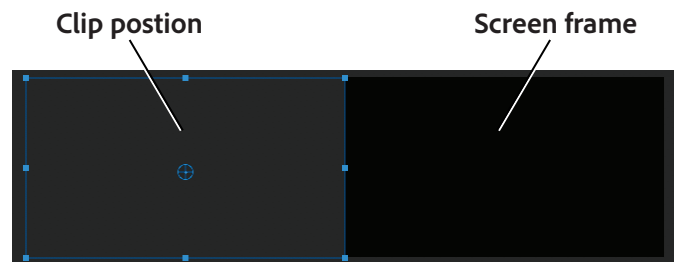


Figure 7 Drag the clip off the screen

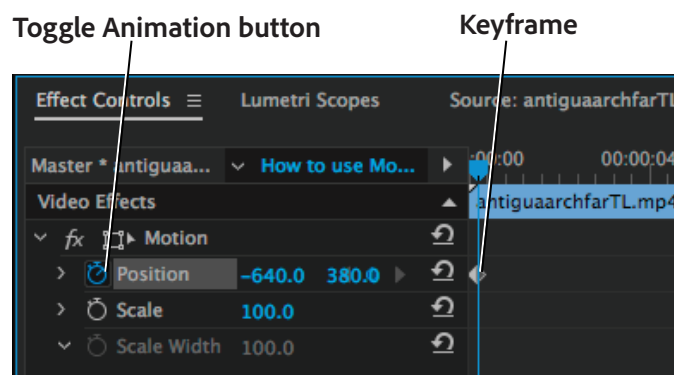


Figure 8 Motion effect with a keyframe

Moving the CTI to a new location in the clip and changing values adds a **Position** keyframe.

12. In the Timeline panel, move the CTI to the end of the clip.
13. In the **Effect Controls** panel, change the **Position** values to **640, -345**.

That puts the clip completely above the screen and adds a third keyframe. You have created a path (if you don't see the path in the **Program Monitor**, click **Motion** to switch on its display). Make note of a few things:

The **Program Monitor** will look similar to the example (**Figure 9**), with keyframe controls available on mouseover at the start and end of the motion bezier curve.

14. In the Timeline, drag the CTI to the beginning of the sequence. As you drag, watch the motion path in the **Program Monitor**.
15. In the **Program Monitor**, click the Play button.

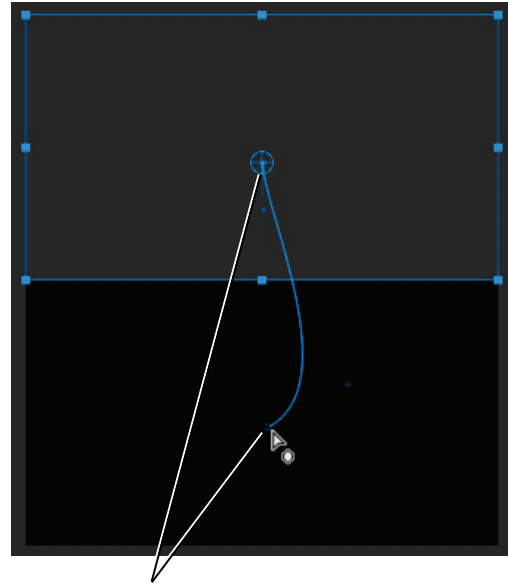
The clip slides smoothly on-screen from the left and then moves off the top.

Note: If your clip does not play, you may need to render it. Select **Sequence > Render Effects In To Out**.

16. In the Timeline, move the CTI to the last frame of the clip.
17. In the **Program Monitor**, drag the center keyframe (in the middle of the black screen) down and to the left (**Figure 10**).
18. Play the clip and note that it moves slowly until the middle keyframe and then speeds up.

Note: By moving the keyframes, you changed their spatial locations and thereby the distance the clip traveled between keyframes. But you did not change the time between keyframes, so the clip moves faster between clips that are farther apart and slower for those closer to each other.

19. In the **Effect Controls** panel time ruler, drag the center keyframe most of the way to the right (**Figure 11**).
20. Play this clip and note how much more slowly it goes at the beginning and how much faster at the end.



Motion effect keyframes

Figure 9 Motion Bezier curve in the Program Monitor

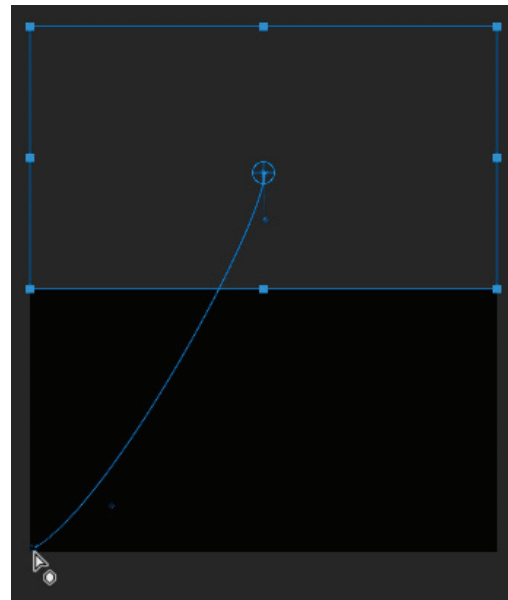


Figure 10 Dragging a Motion effect keyframe

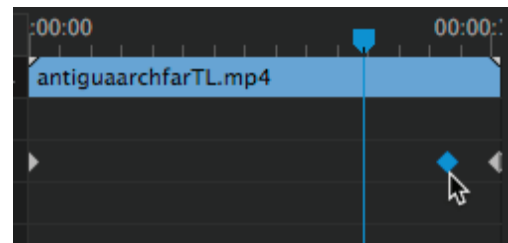


Figure 11 Effect Controls panel time ruler area

Changing clip size and setting position values

You can use the Motion effect to shrink or expand a clip while it is in motion or in place. For example, you can start a clip full-screen and then shrink it to reveal another clip on a lower video track in the sequence. You can start a clip as a small dot, have it grow onto the screen, and then shrink and slide it off the screen.

Note: If you have not completed the first task, “Examining Motion effect characteristics,” complete steps 1–7 of that task and then start this task.

To change clip size and set position values:

1. If you are continuing where you left off in the previous task, you need to remove the **Motion** effect parameters you added to the clip. (Otherwise, go to step 2.)
 - In the **Effect Controls** panel, click the Toggle Animation stopwatch for **Position** to remove the keyframes. Click **OK** to confirm deleting the keyframes.
 - Click the Reset button to return **Motion** to its default setting (**Figure 12**).
2. In the **Effect Controls** panel, do the following.
 - In the time ruler, drag the CTI to the beginning of the clip.
 - In the **Motion** effect parameters area, click the **Position** Toggle Animation stopwatch to switch on keyframes.
 - Change the **Position** values to **0.0, 0.0**.

Those actions add a **Position** keyframe to the beginning of the clip in the **Effect Controls** time ruler area and center the clip in the upper-left corner of the **Program Monitor** (**Figure 13**).

3. In the **Effect Controls** panel, do the following:
 - Click the disclosure triangle to expand the **Scale** parameter to reveal its slider.
 - Click the **Scale** Toggle Animation stopwatch to turn on keyframes (**Figure 14**).
 - Drag the **Scale** slider to zero.

Those actions add a **Scale** keyframe at the beginning of the clip in the **Effect Controls** time ruler and set the clip size to zero for the In point of the clip.

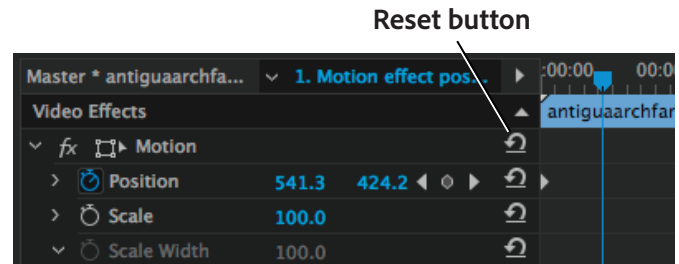


Figure 12 Effect Controls Motion effect reset

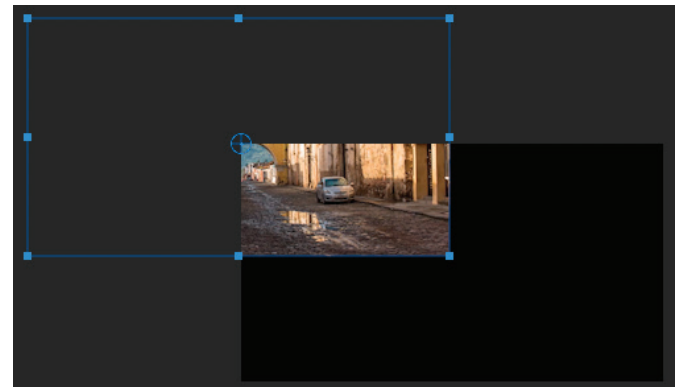
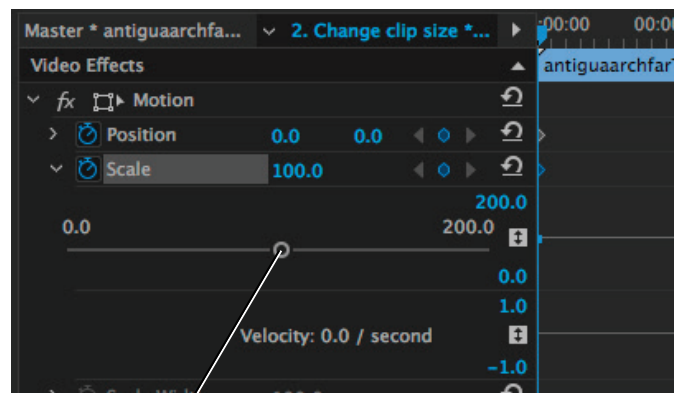


Figure 13 Program Monitor



Scale slider

Figure 14 Motion effect Scale values

- In the **Effect Controls** time ruler, drag the CTI about a third of the way into the clip and then click the **Motion** effect Reset button (**Figure 12**).

That creates two keyframes for **Position** and **Scale** at the CTI location, using **Motion**'s default settings: the clip at full size and centered in the screen (**Figure 15**).

- Drag the CTI about two-thirds of the way into the clip and click the Add/Remove Keyframes button for both **Position** and **Scale** (**Figure 16**).

Note: You could also have clicked Reset again.

That adds two more keyframes, with the same **Motion** parameters as the previous two (**Figure 17**).

- Move the CTI to the Out point of the clip and change the **Position** values to **1280, 720** (centered in the lower-right corner of the screen).
- In the **Program Monitor**, drag a clip bounding-box corner handle to shrink the clip all the way down to the center cross hairs (**Figure 18**).

The **Motion** effect **Scale** parameter is set to zero. The **Effect Controls** panel time ruler should look like the example (**Figure 19**).

Note: To change the scale of only one dimension (height or width), deselect **Uniform Scale** in the **Effect Controls** panel and then drag a side (not a corner) handle.

- Play this clip.

The clip should start as a tiny dot at the upper left, expand to full-screen in the center, hold there for a while, and then shrink to a dot in the lower-right corner.

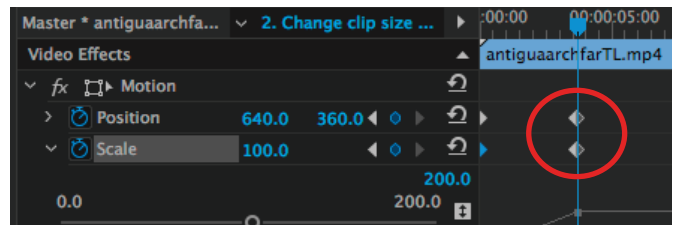


Figure 15 New keyframes for Position and Scale

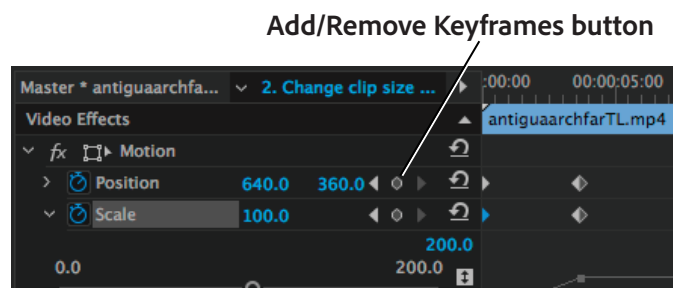


Figure 16 Effect Controls Add/Remove Keyframe buttons

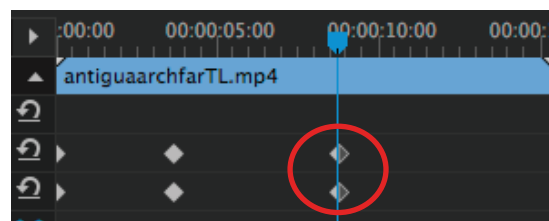


Figure 17 Motion effect Position and Scale keyframes

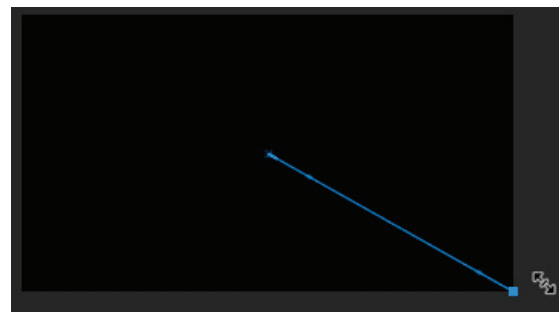


Figure 18 Program Monitor Motion track

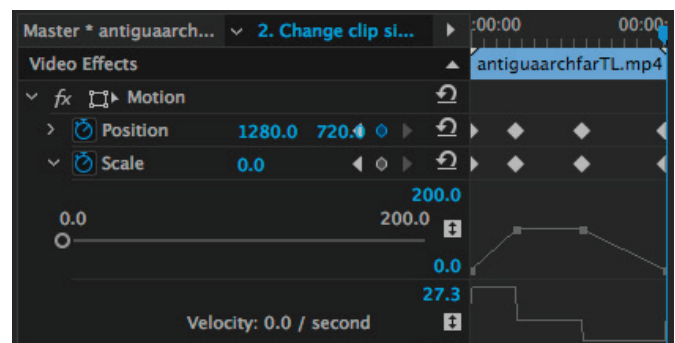


Figure 19 Effect Controls panel Motion parameters

Setting and adjusting rotation

While clips are shrinking, expanding, and moving, they can also rotate. This task shows you how to accomplish this.

To set and adjust rotation:

1. Continue where you left off in the previous task.
2. In the **Effect Controls** panel, drag the CTI to the beginning of the clip and click the **Rotation Toggle Animation** stopwatch.

That sets a keyframe for **Rotation** with **0.0°** (the default value) as the starting point (**Figure 20**).

3. Click the Go To Next Keyframe button for either **Position** or **Scale** to move the CTI to the second keyframe in the time ruler.
4. In the **Program Monitor**, hover the pointer just outside a handle of the clip's bounding box until the pointer turns to a curved double-arrow. Drag the bounding box clockwise two full rotations (**Figure 21**).

In the **Effect Controls** panel, the **Motion** effect **Rotation** parameter should have a value close to **2x0.0°**. You can fine-tune that figure by typing a value.

5. Click the Go To Next Keyframe button for either **Position** or **Scale** to move the CTI to the third keyframe, and click the Add/Remove Keyframe button for **Rotation**.

That adds a keyframe, with the same value as the preceding keyframe.

6. Move the CTI to the Out point of the clip.
7. Set **Rotation** to its default value of **0.0°**.

Alternatively, you could drag the **Rotation** circle counterclockwise twice but it's not easy to arrive at exactly **0.0°**.

Note: Even though you previously used the rotation tool on the clip's bounding box in the **Program Monitor**, you can't now because the **Scale** is zero at the Out point of the clip (the clip has been shrunk to a point) and there are no bounding box handles to move.

8. Play this clip.

It rotates clockwise twice, holds, and then rotates counterclockwise twice.

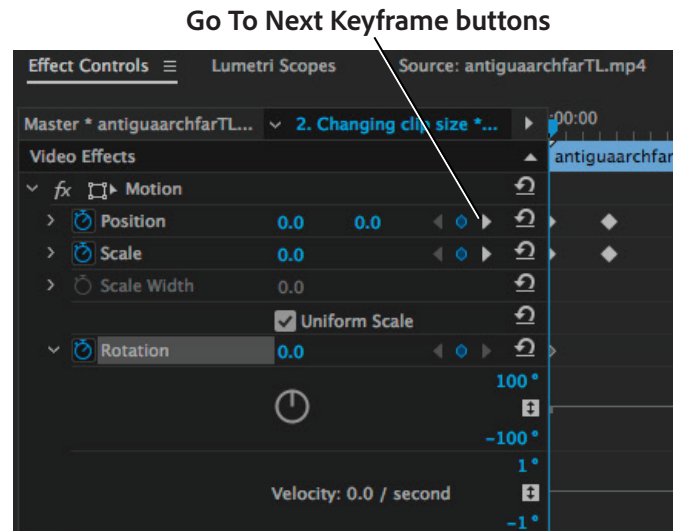


Figure 20 Motion effect Rotation parameter



Figure 21 Rotation tool

Setting and adjusting the anchor point

Most of the time you will probably want to leave the anchor point in its default location in the center of a clip. But there are plenty of exceptions. For example, some logos are off-center within the clip. If you want to rotate a logo around its center (instead of around the center of the clip), you need to move the anchor point to the center of the logo.

To set an anchor point:

1. Continue where you left off in the previous task.
2. Return the CTI to the beginning of the clip.
3. In the **Effect Controls** panel, click the **Anchor Point's** Toggle Animation stopwatch and set the numeric values to **0.0, 0.0** (Figure 22).

Note: **Anchor Point** uses the same coordinate system as **Position**. The upper-left corner of the clip is **0.0, 0.0** and the lower right is **1280, 720**. These anchor point coordinates are independent of the clip scale. You can set anchor points outside the clip to have the clip rotate around a point on the screen. Try **-100, -100**, for example.

4. Play the clip.

The clip rotates clockwise twice and counterclockwise twice, using its upper-left corner as the center of rotation.

5. In the **Effect Controls** panel, move to the second keyframe and click the **Anchor Point's** Add/Remove Keyframe button to add a keyframe there.
6. Change the values for **Anchor Point** to **640, 360** (putting the clip's center of rotation in the center of the clip—its default location).
7. Drag the CTI to a point between the first and second keyframes and look at the clip's anchor point in the **Program Monitor** (Figure 23).

The anchor point is near the clip's upper-left corner. As the clip moves toward the center of the screen, the anchor point moves to the center of the clip.

Note: You can adjust the **Anchor Point** values only in the **Effect Controls** panel. You cannot drag the **Anchor Point** to a new position in the **Program Monitor**.

8. In the **Effect Controls** panel, go to the third keyframe and click the **Anchor Point's** Add/Remove Keyframe button to add a keyframe there, using the previous keyframe's values (anchor point centered in the clip).
9. Move to the fourth keyframe and change the **Anchor Point** to **1280, 720** (setting the clip's anchor point—center of rotation—to its lower-right corner).

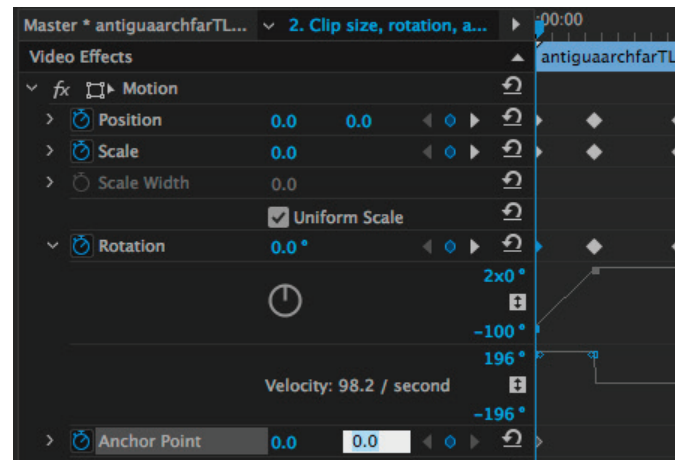


Figure 22 Motion effect Anchor Point parameter

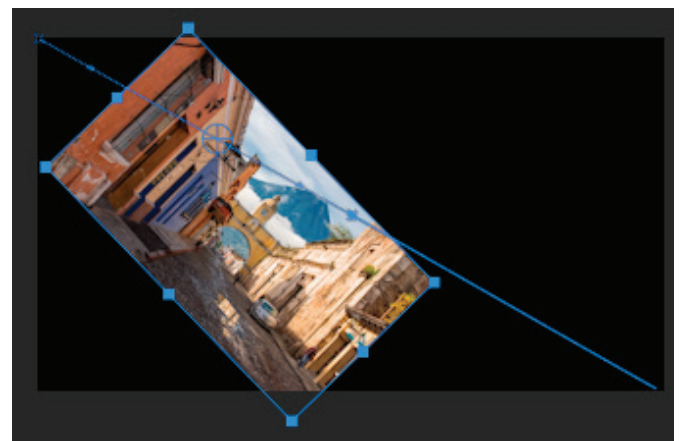


Figure 23 Clip bounding box and anchor point

10. Play this clip.

As the clip spins on and off the screen, the anchor point gradually moves from the clip's upper-left corner to its lower-right corner.

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