Superpose

Quick Start Guide

1. How does Superpose work?

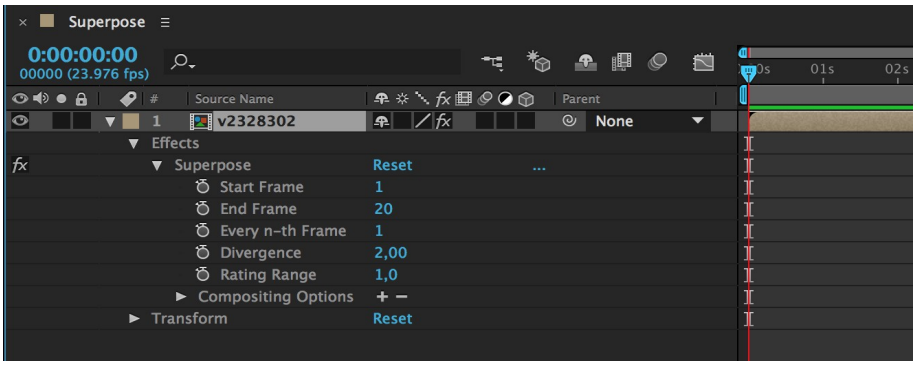
   Imagine you'd like to create a picture of your favorite place, but there are disturbing objects in it. Then, what you can do is creating a set of pictures and copy the clean areas from different images and merge it to one clean image. This can be a time-consuming process when doing it manually. And this is what Superpose does. Automatically.

   Superpose analyses the input sequence and and selects the parts from the frames, where the most likely background is visible. That's why Superpose works best with frame segments which contain a lot of movements and where the background is visible as often as possible.

2. Getting started

   Create a new Composition and create a new Layer with your image sequence.
   Add the “Superpose” Effect to this layer. You'll see, that nothing happens. This is because the default Start/End Frame is set to 1. Superpose has nothing to analyze, thats why the result is just a hold of the first frame.

   Let's give Superpose more information by increasing the frame range. You'll see that the more input images Superpose gets, the more the output image is cleaned up from moving objects.
   Increase the “End Frame” step by step to see what gives you the best result.



3. Tweaking the Result

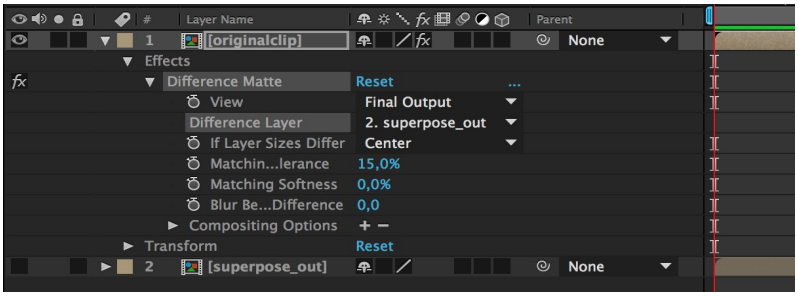
   It is best to use a frame range segment which contains a lot of movement. For example, if you have a sequence from a public spot, it is not a good idea to select the frame segment where people are just standing around. Superpose cannot find the frame with the actual background. The more the background is visible in the frame segment, the better the result.

   If you have a sequence with very slow moving objects which are hiding the background over multiple frames, you can tweak the result by skipping frames for analyzing. To do this, increase the “Every n-th Frame” parameter and check out if this improves the result.

   Additionally, the “Divergence” and “Rating Range” parameters can be used to tweak the result. See the Parameter Overview for details.

4. Extracting the moving Objects

   After you have created a clean image, you can easily extract the moving objects. One way is to use the “difference matte” effect. Create a new composition and add two layers: The original sequence and a precomposed, clean image which comes from Superpose. Hide the visibility of the clean image and add the “Difference Matte” effect to the original sequence. Use the superposed image as the “Difference Layer” and adjust the parameters to tweak the result.



5. Parameter Overview

Start Frame / End Frame	This specifies the layer's input frame range
Every n-th Frame	Use every n-th frame for analyzing. Increase the value if your sequence contains slow moving objects
Divergence	This is the threshold value, when to treat two pixel values as different. In most cases, the default value is the best choice. If you have a sequence where the lighting situation chances slightly, increasing the result can create better results. Too small values can create crispy images and worse cleaning results, while too big values can result to ghosting effects, like frame averaging. The Divergence is a relative value and differs on the selected project color bit depth.
Rating Range	This value is for tweaking the cleaning process. Superpose rates the pixel values to calculate the final background pixel. The best matching pixel values are used as background candidates. A value of 1 (default) will make that Superpose uses only the best rated value and is sufficient in most cases. Increase the value if you want to use more values within the pixel statistic ranking. This can improve the result, but can also generate ghosting effects if this value is too big. For example, a value of 3 uses the three best rated pixel values to calculate a background image.

6. Tips and Tricks

Process different image areas separately

Sometimes, different areas of the input sequence need different settings to get better results. Just create multiple Superpose images, change the settings which match the best for the specific areas and compose them to a final image.

Stabilize the sequence before superposing

Superpose only works on stabilized/fixed camera images. When not using a fixed camera, stabilize the sequence, superpose it and attach the movement again.

Retouch footage with snow or rain in foreground

After superposing a snowy footage, you can subtract the original image from the superposed image to extract the snow/rain layer. After retouching you can add the snow again. You can also use the difference matte effect to extract the moving objects.

Lesser input frames can cause better results

If you have a lot of objects moving on the same path (e.g. a highway), too many input samples can cause a worse result, since the objects are covering the same area again and again. Begin with a small number of input pictures and increase step by step and watch the result. Also try to vary the “Every n-th Frame” parameter.