

## GUIDE TO MATTE PAINTING

In this guide I will show you how to create a matte painting. Afterwards we will then import the different layers into After effects, and make it look like the picture has some depth. We won't be doing a lot of Photoshop work, so the first part of cutting up a picture, will be a quick run-through.

The first thing we have to do is to find or take a picture we want to use for our purpose.

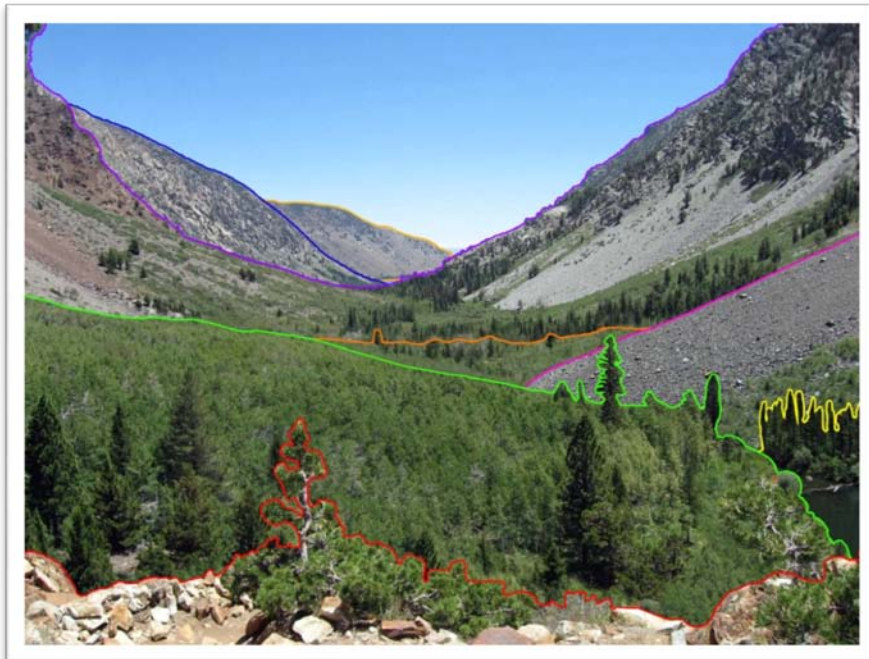
I went into Google, and searched for "valley view", and found this picture (included in the ZIP):



The picture is rather large (1600x1200px), so we will have to resize the picture after we have cut it into pieces. For now we will keep the size, because it is easier to edit a larger image.

The first step in any matte painting creation is to cut the picture up into the pieces we want to use.

The way to do this is actually very simple. I cut my picture like this:



It is best to start cutting from the foreground, or the background. The reason for this is that if you cut something from the middle, and say you have about 10 different layers, this can quickly create some unnecessary confusion.

In my picture I started from the background, and cut out the water and sky. The thing you do after you have cut out a piece, and placed it in its own layer, is to align it back into place where it was previously was.

Now we have to make it extend behind the other layers, so it later will be possible to zoom and rotate a little in the picture to create the depth in the picture (use clone stamp tool for this).

I have made a little flash document, to illustrate how the layers are placed over each other. The file can be found in the ZIP files, and is called:

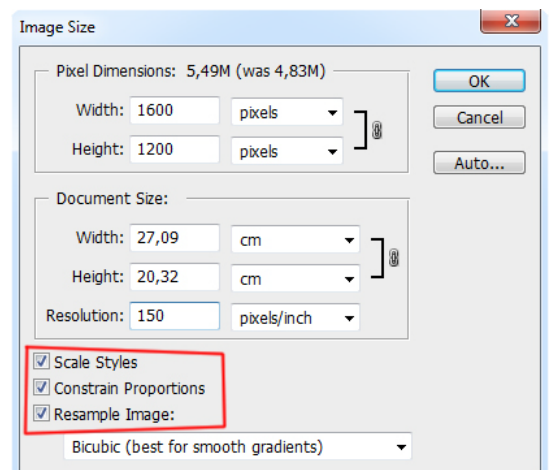


layers.swf

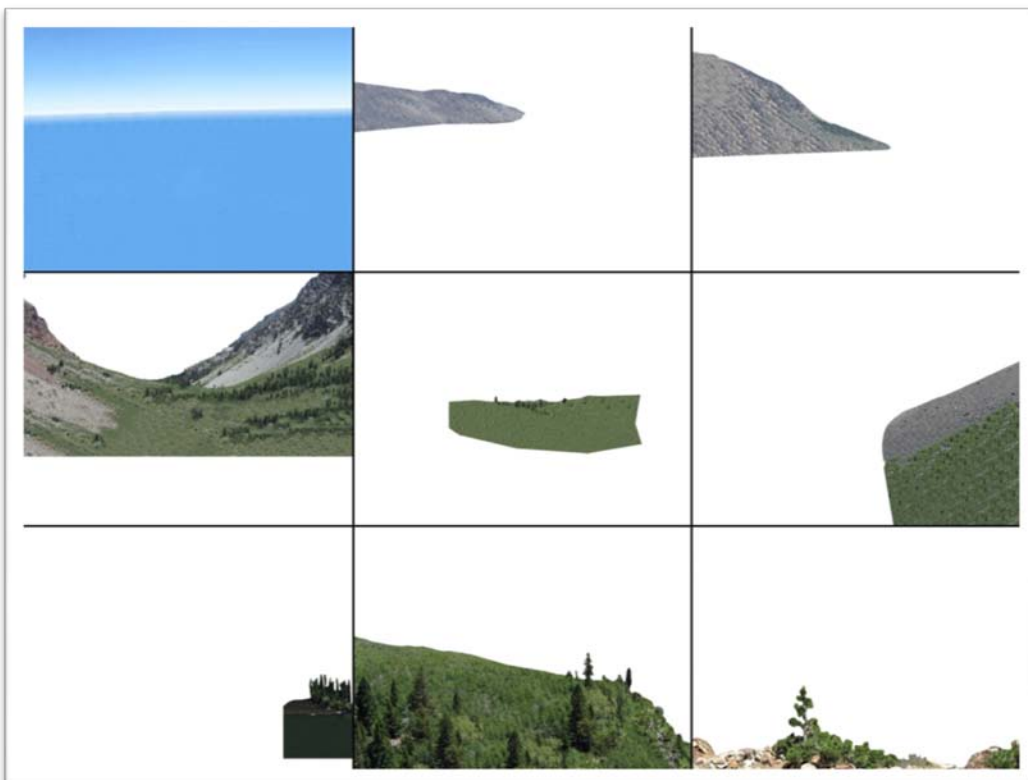
When you have cut your picture into the pieces you want it in, save the layers into different PNG files, with transparent backgrounds. My picture is way too large for After Effects, so make sure to resize your picture in Photoshop, before you import the layers into After Effects. (Click "Image" → "Image Size" or Alt + Ctrl + I).

Make sure the checkboxes are all checked (red box):

Now choose the image size you want for your picture. If you have some video footage, you need to combine with this matte painting; it would be prudent to make the image about the same size.



You can find my PNG files included in the ZIP. My cuts look like this:



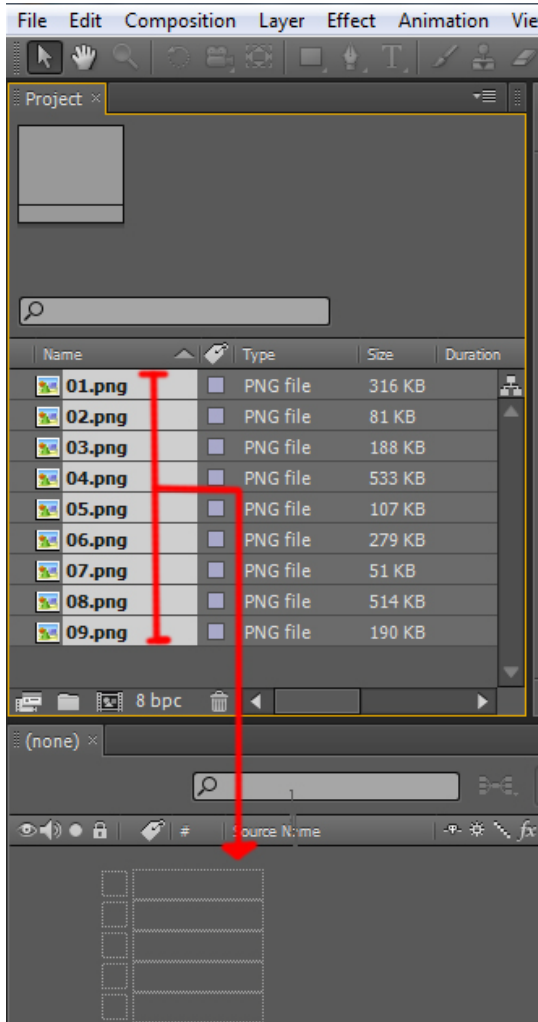
When you have your image PNG files, we need to import them into After Effects.

## THE AFTER EFFECTS PART

Open After Effects, and drag and drop the PNG files into the project field:

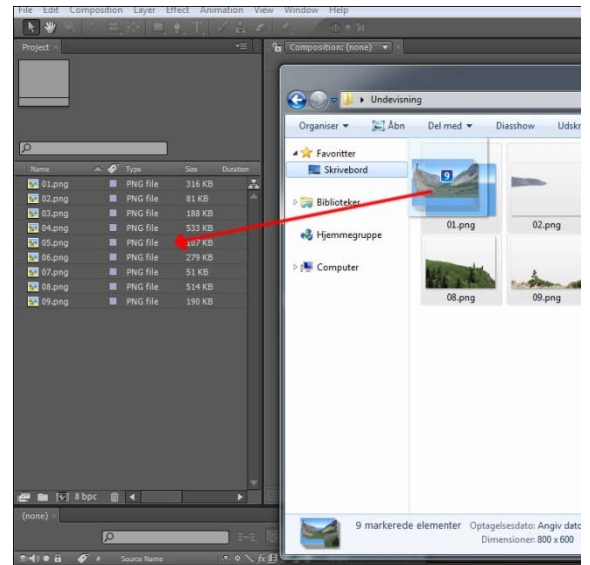
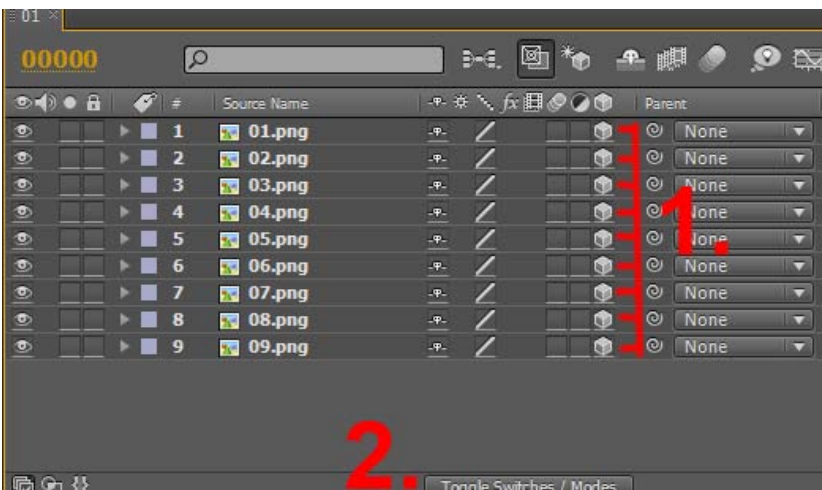
Now having our image files in our project field, we need to make a new composition from these images.

Select all images, and click and drag them into the composition field/timeline:



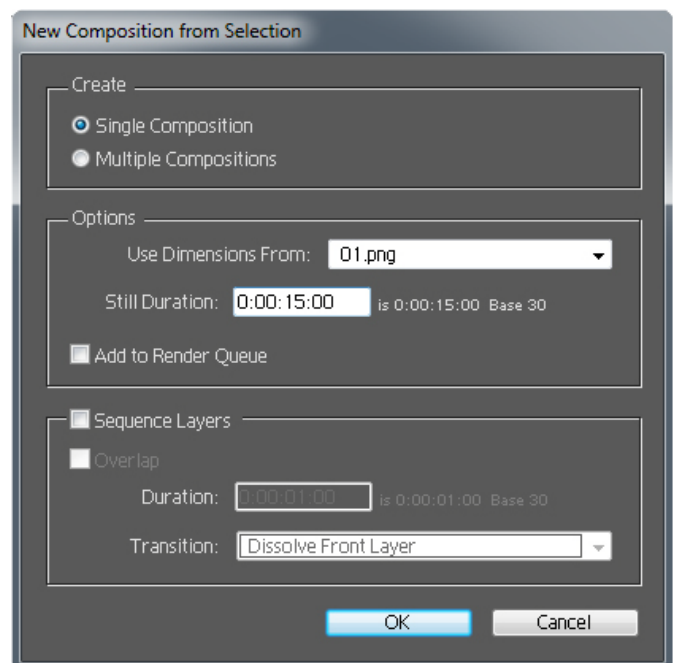
As you can see the compositions length is set to 15 seconds, and the composition size, is set to the same as one of the images.

The next step is to make the layers 3D.



AE will prompt you with the “New composition from selection” window.

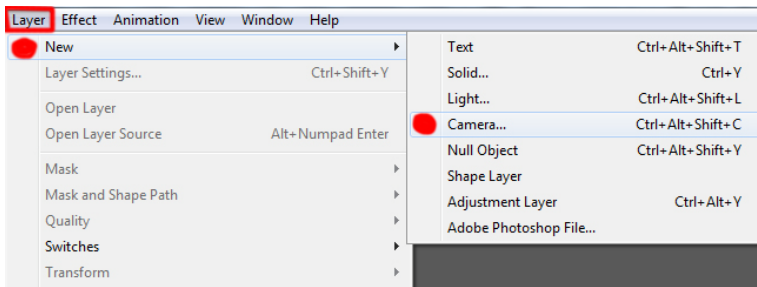
Set the settings as shown here below:



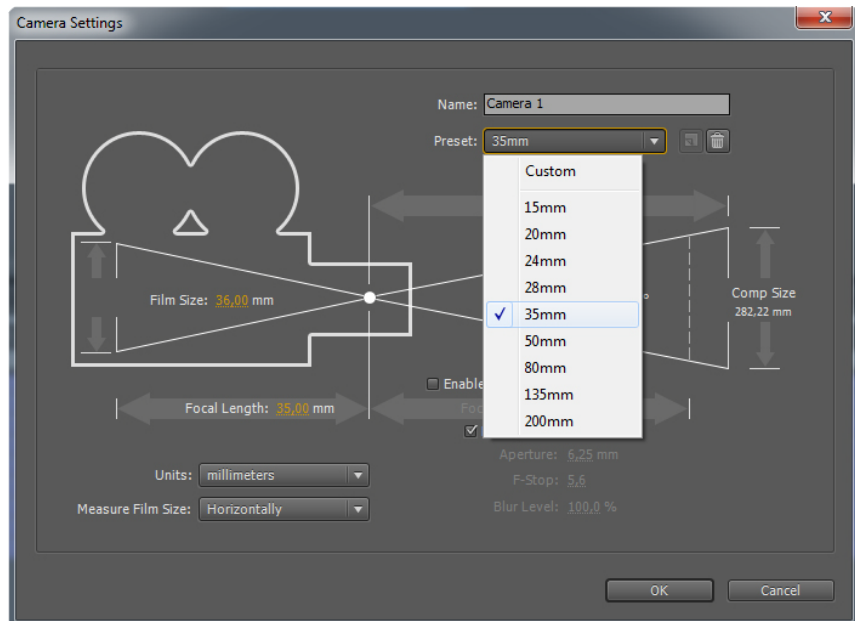
Click the first 3D layer button and drag down the line of all layers (1.):

If you can't see the 3D layer button, you need to click the “Toggle Switches / Modes” button (2.)

Now we have the ability to manipulate the layers in 3D space, but we still need a camera to view the 3D effect. To create the camera, choose “layer” → “New” → “Camera”:



In the dialog choose 35mm, and leave the rest as it is, Click “OK”:



Now we have to set the different layers Z value, to create the difference in the depth.

One way of doing this is by selecting all the image layers in the composition, and press “p”.

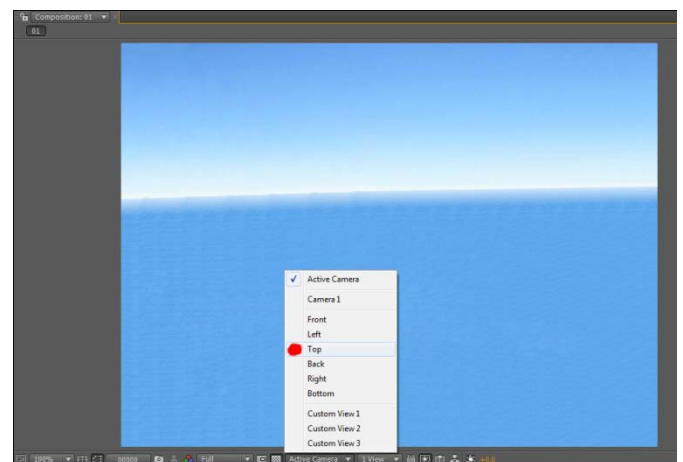
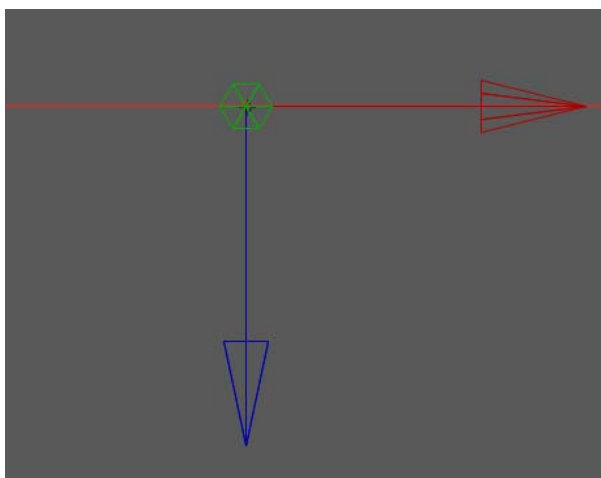
Then setting the Z values in the last field in the line:



The way, I like to do it, is to select the top view in the Preview window, and manually drag the layers to the positions I like.

In the bottom of the preview field, click the Active camera rollout, choose Top:

Now you click on every layer individually, and drag its “Blue” Z arrow into place in the preview window.



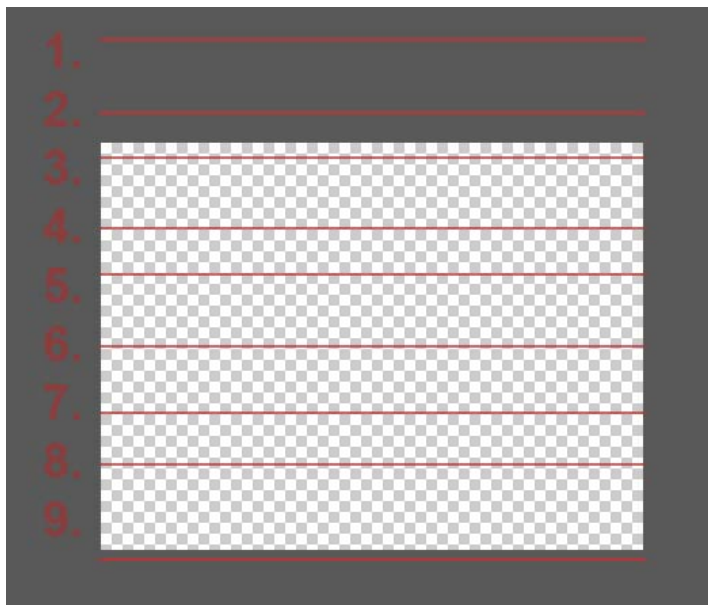
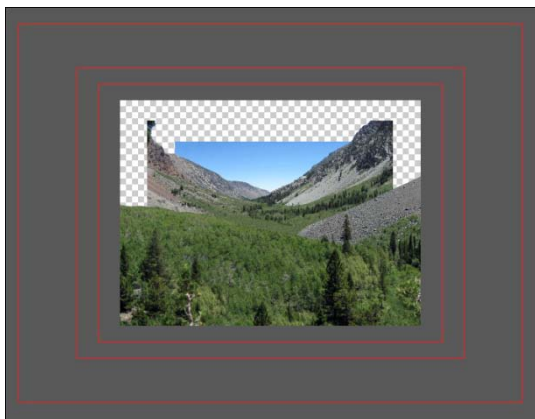
Remember layer 09 needs to be in front, and layer 01 is the last (off course depending on how you saved your images).

The way I places my layers is like this:

Now we need to go back to the active camera view.

Click the Top rollout in the bottom of the preview field, and choose "Active Camera".

As you can see now it looks like the images are all different sizes. In fact they are not. They are just in different planes of the cameras view.



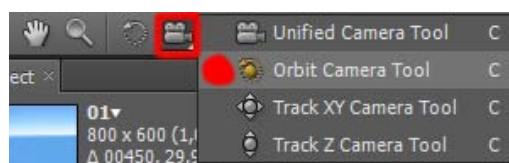
To correct this, again you just need to take every layer individually, and scale it to match the compositions dimensions.

Choose one of the layers, and click and drag one of the edge points towards the point you want it to be. While holding down the mouse button, press the "shift" key on the keyboard, to keep the width to height ratio intact. Make all layers the same size, but make sure they are a little bigger, than the compositions size, so that when we move the camera later on, there will be no black/transparent areas in the sides. I made mine like this:



Now we have created the basics for our matte painting, and could leave it at that. Click the camera controls, in the toolbar, and choose "Orbit Camera Tool":

You can now click and drag in the preview field, to see the 3D effect. Remember to reset the position of the camera (if changed) by pressing "Ctrl + Z"



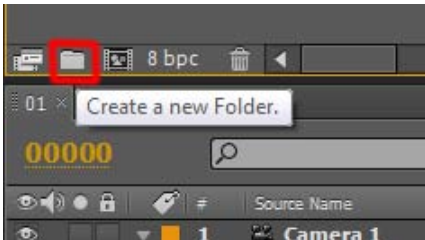
NOW WE WANT TO ANIMATE THE CAMERA, AND ADD SOME LIFE TO THE SCENE, IN THE FORM OF SOME FLYING BIRDS.

Let's start with the birds.

I have included a sequence of images in the ZIP with one bird flying, where I have made the background lime green, so it is easy to "color key" out. The sequence of images, have been taken from a YouTube video, which I downloaded, and edited for this purpose.

We need to import the images into AE, but there are 127 of them, so we will put them in a separate folder in the project field.

Click the "Create a new Folder" button at the bottom of the project field:

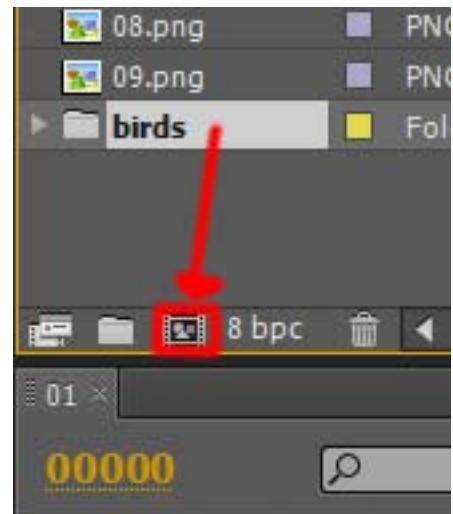
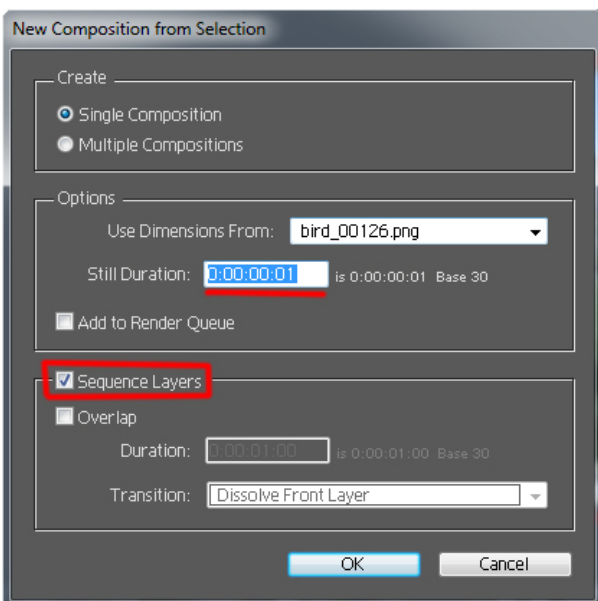


Call it "birds", or something.

Now click and drag all the image files from the windows folder to the "birds" folder in the project field.

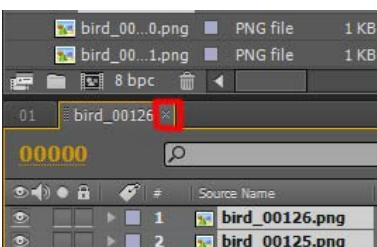
Click and drag the folder "birds" down onto the "Create new Composition" button:

In the dialog that pops up, make sure to set the "Still Duration" to 1 frame, and set "Sequence layers" on.



You can try to scrub the time scrubber back and forth, to see the bird fly.

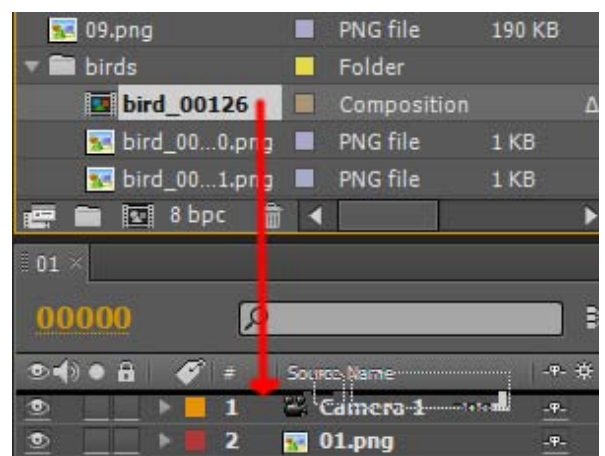
Close the newly opened composition:



We now need to put the birds inside our matte painting.

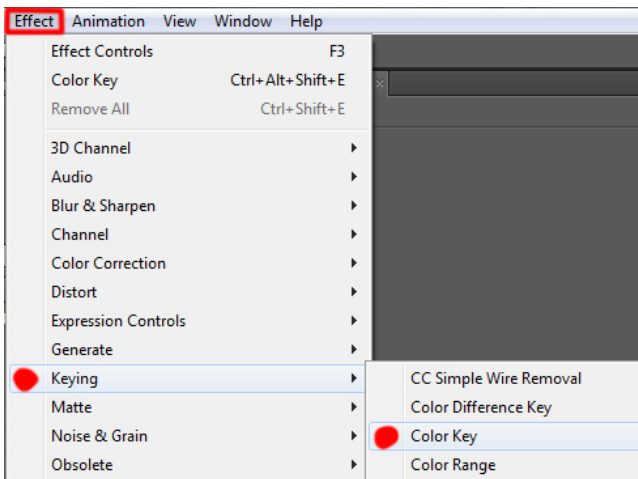
Click and drag the Bird composition down above the camera:

Right now it doesn't look that good with a big green box in the middle of our matte painting.

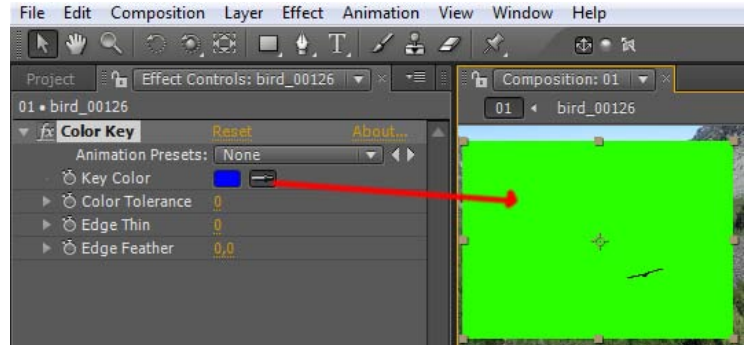


To remove the green, we have to color key the bird composition.

With the Bird composition in the timeline selected, choose “Effect” → “Keying” → “Color Key”:



In the effect controls, (which opens above the project field) click the eyedropper, and choose the green color in the preview field:



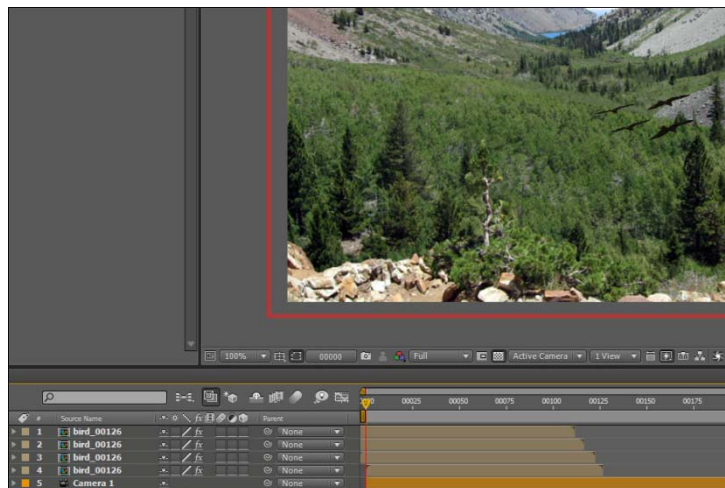
Now the green background in the bird composition disappears.

Of course one bird isn't enough; we will need at least four of them. Luckily this is very easy. Select the bird composition in the timeline, and press “Ctrl + D” three times, to duplicate the composition.

There is still one little problem, the four birds fly on top of each other, so it still only looks like one bird. The quick fix is to take the bird compositions and move them apart. They still fly in the exactly same way, so we have to offset the playtimes of the compositions. Take the 3 new bird compositions one by one in the timeline, and drag them to the left, make the difference as little as possible because the footage isn't that long.

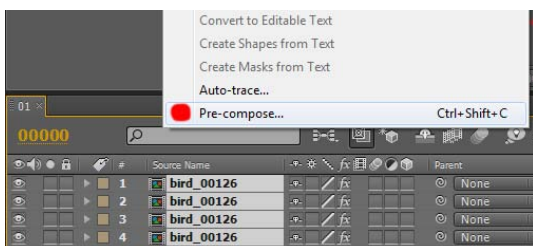
This is what I did: ----->  
I took the bird compositions and placed their position a little apart, as well as in the timeline.

Now make sure all the compositions are as long as the shortest one, by clicking and sliding the end of each composition, so they are perfectly aligned:



Now we want to get all the birds in one composition, so that we easily can move them around.

When you are satisfied with the “displacement” of the birds, select the four compositions, and choose “Layer” → “pre-Compose” (Ctrl + Shift + C):



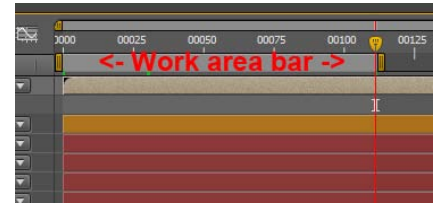
Name it “Birds”, and click “OK”

Now we have full control over the position of the four birds in one composition.

You can of course insert a lot of different items in this matte painting, but we will stick with what we have got right now.

Now we just need to create some movement of the birds, and the camera, to make our matte painting come to life.

Because the “birds” footage isn’t very long, we have to make our entire composition the length of the “birds” composition. Grab the time scrubber, and scrub to the frame just before the birds disappear, and then drag the right end of the “Work area” bar to that point:

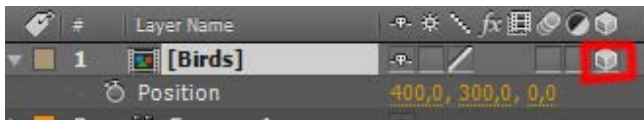


Right click the work area bar, and click “trim comp to work area”.

Now the whole composition is the length of our “birds” composition.

## ANIMATION (BIRDS)

Select the “Birds” composition in the timeline, Click the 3D layer button, and press “p”.



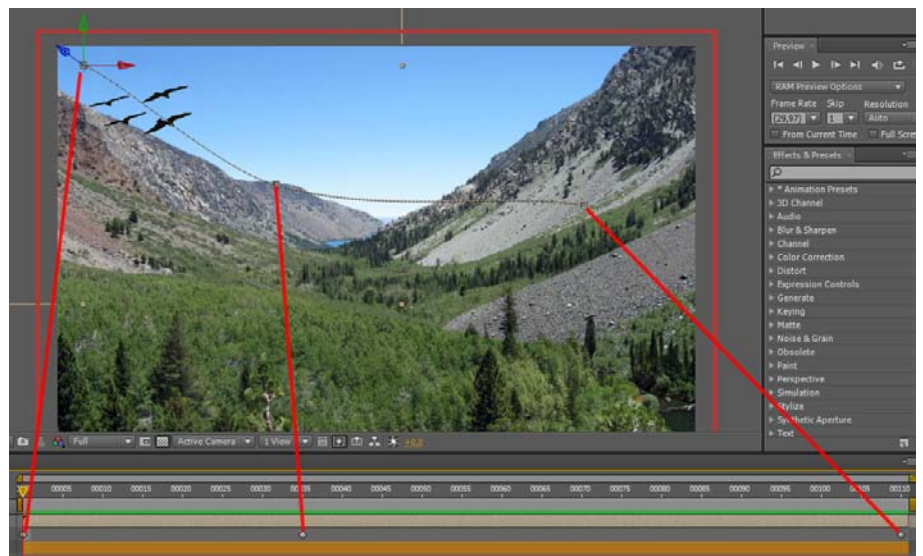
The position should appear.

Make sure the timeline time scrubber is at frame zero. In the preview field, click and drag the birds to the top left corner of the scene, and click the little stopwatch to the left of the position label.

By pressing the stopwatch, you engage the recording of the movement of the “birds” composition.

Move the time scrubber to the last frame and set the positions values to “660 x 200 x 0” then move the scrubber to about frame 35, and move the birds position to “250 x 150 x 150”.

Now the key frames are set, and the birds fly a nice curve into the scene, from the one side of the scene, to the other





## ANIMATION (CAMERA)

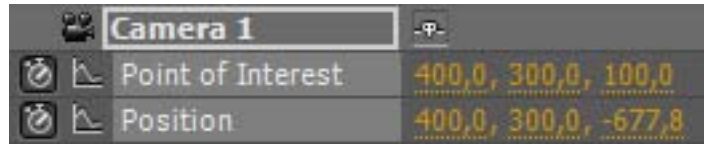
To animate the camera we also need to animate the “point of interest” for the camera. Click the camera layer in the timeline field, and press “p”, and then hold down “Shift”, and press “a”.

Once again click the little stopwatch to the left of the position, and point of interest.

Drag the time scrubber to the last frame in the composition. Now choose the “Track Z Camera Tool” from the toolbar:



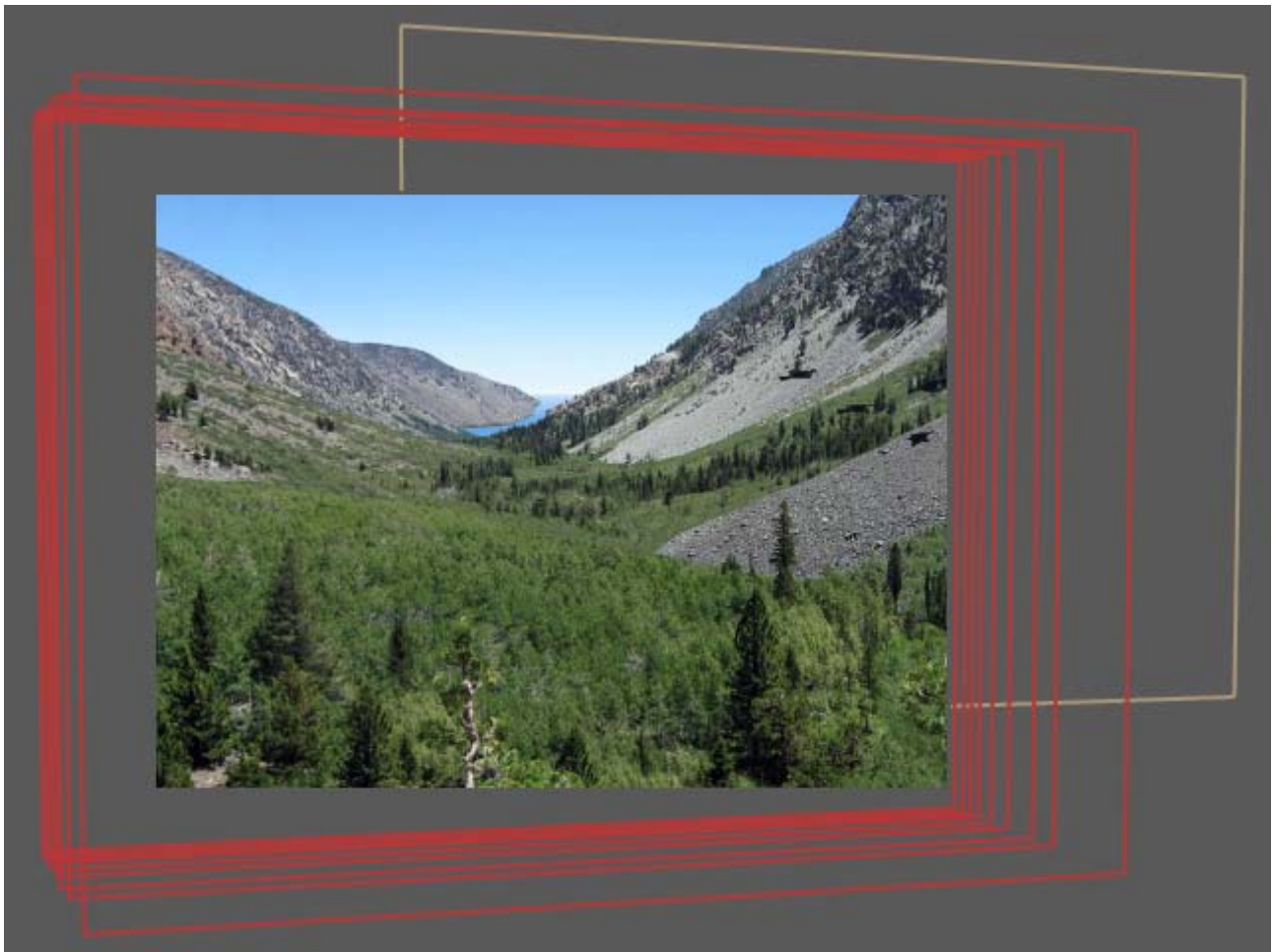
Click the preview field, and push the camera about 100 px into the scene.



Now choose the Orbit Camera Tool from the toolbar:



Once again with the time scrubber at the last frame, click the preview field, and turn the camera to the right, without going too far (stay within the “red” borders):



Now we have birds flying across the scene, and our camera is moving around, to create the 3D effects, so we are done setting up our matte painting. Now we only need to render our result.

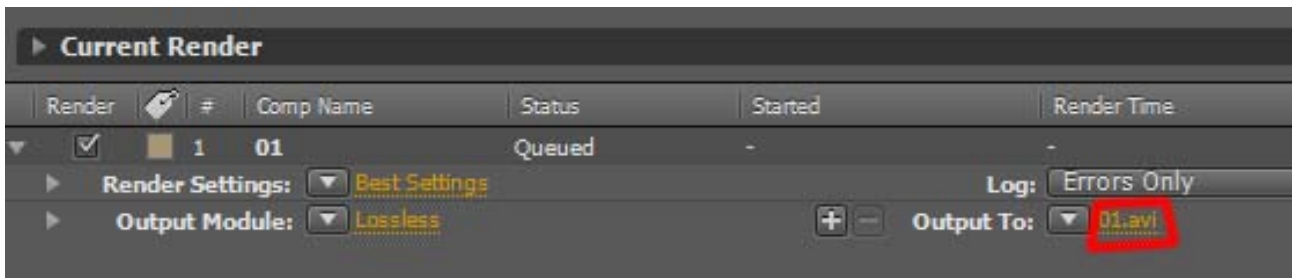
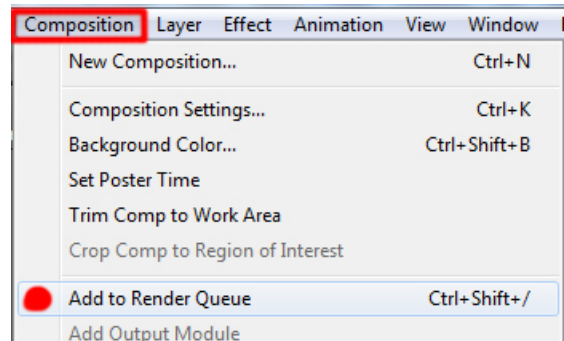
## RENDERING

Some people render their AE results via an export. This is considered bad practice. The right way to render your results is to use the render queue.

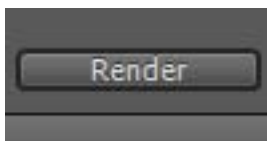
Choose “Composition” → “Add to Render Queue”

As a default the settings are set to a lossless AVI format, which is okay for this composition.

Click the “output to:” filename, (01.avi) and choose your output directory:



Then Click “Render”:



Now you are done.

I hope this basic guide has given you some insight into the basics of creating a matte painting setup.

Of course this was a very basic setup of a matte painting, and you could probably create some really astounding compositions.