

# VT Wipe Builder

Aura's VT Wipe Builder can be used to make Video Toaster DVEs straight from Aura!



Figure 1: A simple wipe DVE created with Aura in minutes

## REQUIREMENTS

The set-up is quite simple and there are only a few requirements. First, your project should be *at least* four seconds long. If not, your DVE will not play smoothly at all standard switcher speeds. Second, your project size must match your video standard, that is, either D1 NTSC (720 x 486) or D1 PAL (720 x 576).

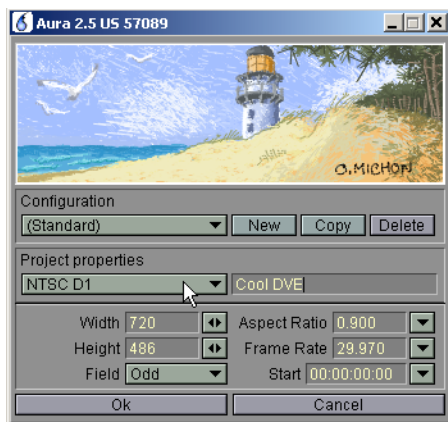


Figure 2: D1 NTSC settings selected for project size on Aura startup panel

Although your project can have many layers, only two—which you specify—will be used by VT Wipe Builder. One layer is a graphic overlay and appears over the transition. Use this layer for effects like animated borders, smoke, keyed footage, flying logos, bugs, and so on.

## The Transition Layer

The other layer is the transition layer. Only the alpha channel is important on this layer. Of course the layer can have color, but it is ignored as far as the VT Wipe Builder is concerned.

How the transition operates depends on how you set it up. The transition layer animation should be set up in one of the following ways:

- Fully opaque to fully transparent
- Fully transparent to fully opaque
- Fully opaque to fully opaque

If the first frame is fully opaque and the last frame is fully transparent, the DVE will be a “pull” (or wipe off) transition. That is, the outgoing video can be pulled/wiped off to reveal the incoming video.

If the first frame is fully transparent and the last frame is fully opaque, the DVE will be a “push” (or wipe on) transition. That is, the incoming video can be pushed/wiped on, over the outgoing video.

If both the first and last frames are fully opaque, an A-to-B transition can be performed. The “most overlaid” frame is found based on the overlay layer—a “take” occurs at this frame. The outgoing video is controlled prior to the “take” frame and the incoming video is controlled after it.

As you can see, the opaque pixels can show either the incoming or outgoing video depending on which of the above setups you use. Also note that alpha channel values in between will be a mix of the two videos.

***NOTE:** If your transition is set up differently than described above, the incoming video is controlled during the entire transition with a “take” performed at the end.*

## AURA’S ALPHA CHANNEL

In Aura, the alpha channel is generally referred to as “opacity” and you don’t normally work with it directly. Generally speaking, the alpha channel is handled automatically for you. When you paint using antialiasing, varying levels of opacity blend edges into the background, as opposed to actual pixel color changes. When you fill shapes, you can vary the level of opacity as well.

You can extract the alpha channel from a layer using the ExtractAlpha George script. Note that this is not necessary when using the VT Wipe Builder since any color information in the transition layer is just ignored. (The AlphaComposite George script can be used to merge a separate alpha channel layer into an RGB layer.)

## ANIMATING THE TRANSITION VIDEO POSITION

By default, video is stationary and centered in the frame. The alpha channel merely acts to “wipe” video on or off the frame. However, if you create keys for the **Transition Pos X** and **Transition Pos Y** settings on the transition layer—as you can for any animatable filter—the position of the video *using the opaque pixels* can be animated creating a push or pull type transition.

***Note:** The graphic overlay layer is not affected by animating the X/Y values.*

## USING VT WIPE BUILDER

***NOTE:** This tutorial assumes a basic understanding of how to use Aura.*

### To create a wipe off transition:

**1** Start a project using your correct video standard size (either D1 NTSC (720 x 486) or D1 PAL (720 x 576)).

**2** Stretch the default layer to four seconds to ensure a smooth scalable DVE and make it an Anim layer. Name this layer “Overlay”.

**3** Duplicate the layer and rename the copy “Transition”.

It is not a requirement to name your layers, but it will help you identify them later.

**4** In the first frame of the Transition layer, fill it with white. Then use the Rectangle CutBrush tool with your *right* mouse button to cut out the entire work area. The large white rectangle will become attached to your mouse pointer—the work area should be totally transparent.

**5** Choose **Filters > Motion > Keyframer** from the toolbar. On the Keyframer panel, choose **File > Reset** to reset all settings to their default

values. You should still be on the first frame of the Transition layer. Click the **Create +** button on the Layer panel to create a key for the Keyframer filter at the first frame. Go to the last frame, set the X value to 1080, and click the **Create +** button again. (see Figure 3)

The default X value should have been 360. That is, right in the middle of the frame. To move the white rectangle right, totally out of frame, we need to move it 720 pixels to the right to 1080 (720 + 360).

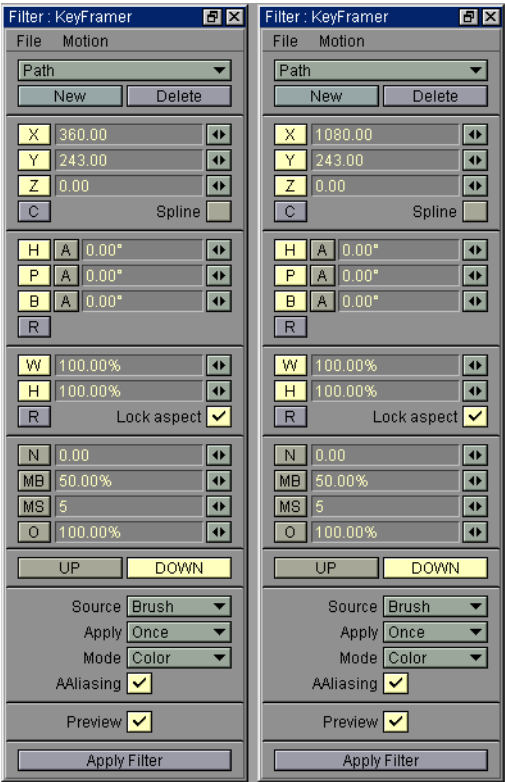


Figure 3: (left) The Keyframer settings for the first frame. (right) Settings for the last frame.

**6** Select all of the frames in the Transition layer and click Keyframer's **Apply Filter** button (see Figure 4). Close the Keyframer panel.

This operation will simply fill the first frame with the white rectangle and then move it to the right, leaving a totally transparent work area in the last frame.

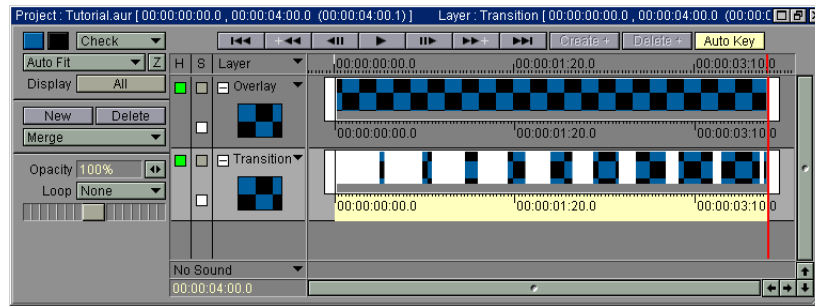


Figure 4: Select all of the frames in the layer before applying the Keyframer filter

**7** Choose **Filters > Transition > VT Wipe Builder** from the toolbar. Choose **File > Reset** from the filter's menu to reset all settings. Leave **Overlay Layer** set to **None** since we have no overlay animation. Set **Transition Layer** to your Transition layer (see Figure 5).

**8** Click the **Save As** button and specify where you want the DVE file created and the name of the file (e.g., Wipe.dve). You might want to save it with your other DVEs, but in a separate folder.



Figure 5: Set Transition Layer to your Transition layer

**9** Select all of the frames in the Transition layer. Click the **Build VT DVE** button to start the DVE creation process. This generally takes only a few minutes.

When the filter is finished, you can use the DVE as you would any Video Toaster DVE. Pretty cool, huh? And easy too! Let's get a little more creative.

### To create a pull-right transition:

**1** Begin where you left off in the previous exercise.

To modify the current project to create a pull transition, the video will need to match the movement of the moving white rectangle. In this case, this can be done by animating the **Transition Pos X** values.

**2** You need to be at the first frame of the Transition layer. Open the VT Wipe Builder panel again, if it isn't already. The **Transition Pos X** and

**Transition Pos Y** settings will default to the very center of the frame (e.g., 360, 243 for D1 NTSC). Click the **Create +** button on the Layer panel to create a key for the VT Wipe Builder at the first frame. Go to the last frame, set the **Transition Pos X** value to 1080, and click the **Create +** button.

**3** Click the **Save As** button and set the path and filename of your DVE. Select all of the frames in the Transition layer. **Overlay Layer** should still be set to **None** and **Transition Layer** set to your Transition layer. Click the **Build VT DVE** button to start the DVE creation process. You should see the **Transition Pos X** value increment as the DVE is built.

What we've done here is move the outgoing video to match the wipe, creating a pull transition. Let's add a flying logo to our transition.

### To add a graphic overlay to your transition:

**1** Continue on with the previous exercise.

You can basically overlay any Aura animation over the transition. Here, we are just going to do a simple flying logo.

**2** Activate the Custom Brush tool from the Tools panel and choose a brush from the brush bin or make your own (see Figure 6).



Figure 6: Choose a custom brush from the Brush Bin

**3** Use the Keyframer filter to move it from off screen in the first frame to off screen in the last frame (see Figure 7).

Technically, the graphic does not have to start and end off screen; however, if you don't do this, the graphic will pop on or off the screen which is usually not a desired effect.

**NOTE:** If you aren't sure how to use the Keyframer filter, see the Aura user manual.

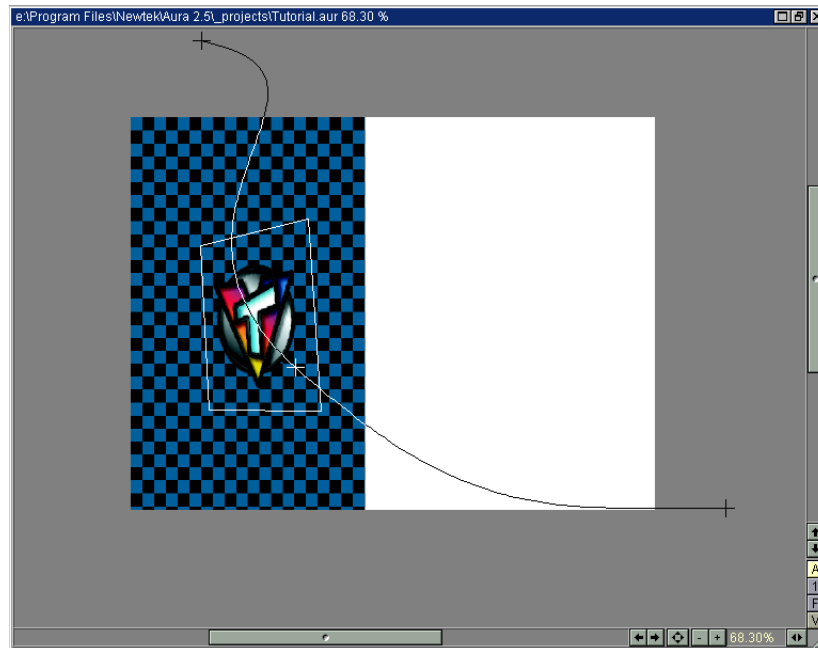


Figure 7: Use the Keyframer filter to animate a flying logo across the screen. It should start and end off screen.

**4** On the VT Wipe Builder panel, click the **Save As** button and set the path and filename of your DVE. Set **Overlay Layer** to your Overlay layer and **Transition Layer** should be set to your Transition layer. Select all of the frames in the Transition layer. Click the **Build VT DVE** button to start the DVE creation process (see Figure 8).

The resulting DVE should look just like the previous exercise's Pull transition. The only addition should be the logo flying over the screen.

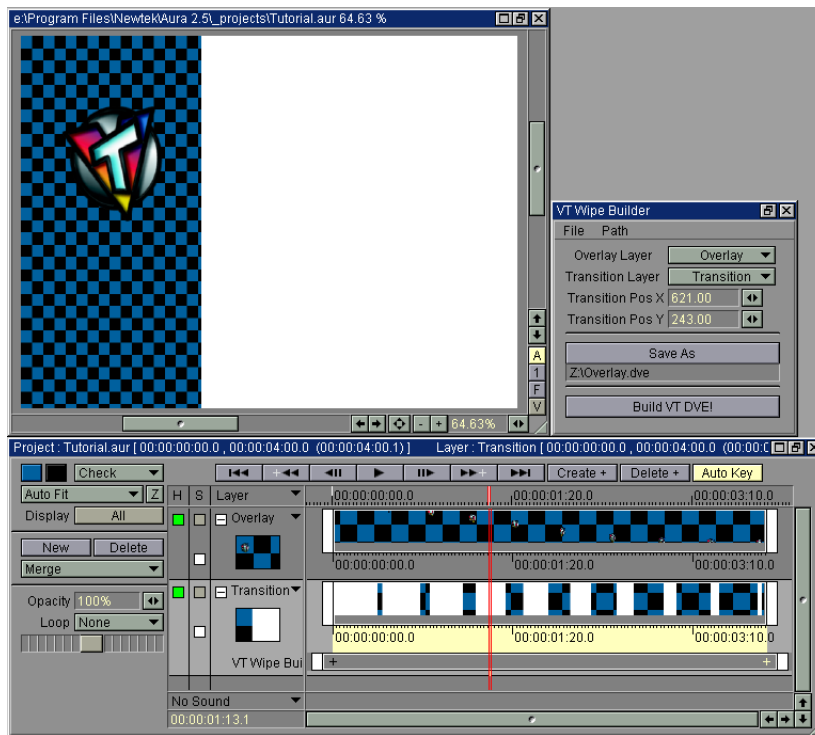


Figure 8: The logo is animated to fly across the screen, over our pull transition

## WRAP UP

Well, that is all there is to it. If you'd rather do a "push" or "wipe on" transition, just begin with a transparent work area, and animate the opaque area *onto* the frame (instead of off, as was done in the preceding exercises).

You can create simple DVEs using the Transition filter. Just create a layer, fill it with white, make it an anim layer, and stretch it to four or more seconds. Then, just keyframe the Transition filter's Position setting to 0% on the first frame and 100% on the last. Add some blur or other filters to create a custom look. Have fun!