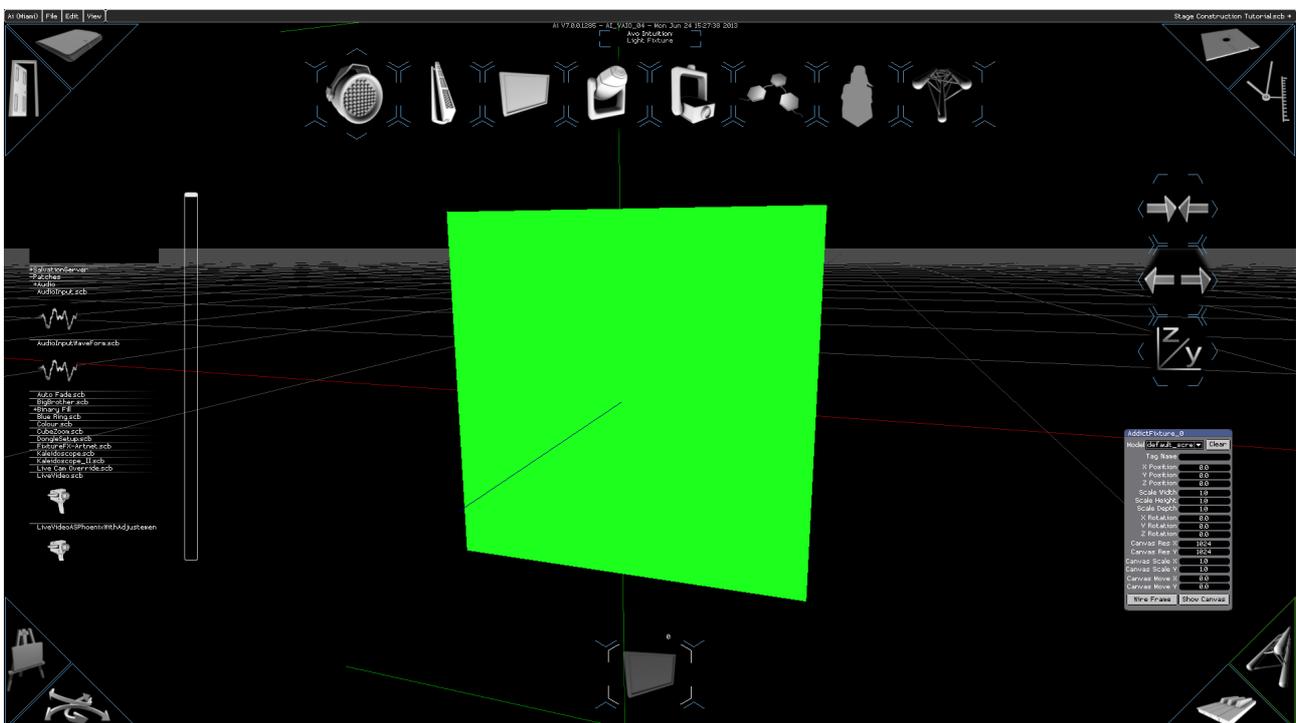


Title	Tutorial: Stage Construction Page		 Defining The Future www.avolitesmedia.com
Product	Ai		
Date/Author	31/07/13	Marc Evans	
Level	Easy		
Estimated Time	10 minutes		

Background:

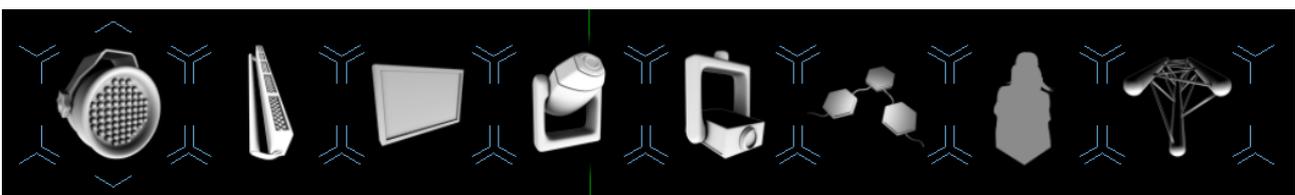
This tutorial explores the Stage Construction Page in Ai.

This basic tutorial will introduce you to the Stage Construction Page within Ai. The Stage Construction page is where you build the virtual stage for your show within the 3d visualiser.



Start a brand new project by clicking on the open door icon in the top-left hand corner of the screen and enter a filename. You will then be taken to the Stage Construction Page, and greeted by a large green square. By default, Ai loads a single square screen fixture. You can rotate the screen fixture in the 3d world by using the left mouse button with the Shift key, and you can pan using the left mouse button with the Alt key. You can also zoom using the scroll wheel on your mouse.

First, let's look at the icons across the top of the page – these are the fixtures that can be used within Ai.

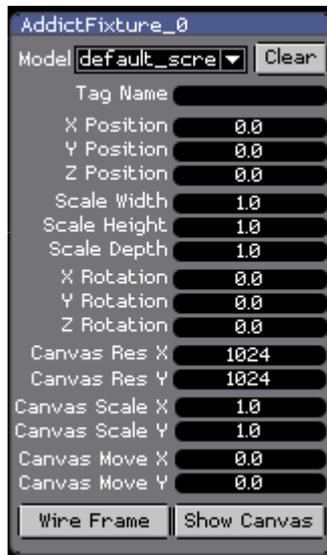


The first two icons are for LED lighting fixtures, the next is a screen fixture like our default green

square. Next up is a moving head lighting fixture, followed by the projector fixture. Also, we have a modular LED fixture, useful for volumetric LED arrays. The final two fixtures are used for a sense of scale – we have the human fixture and structure fixture.

For this tutorial we are going to concentrate on using the screen and projector fixtures to set up a basic show. We will discuss the other fixtures in later tutorials.

So, back in Ai, we'll take a look at the number box on the right-hand side.

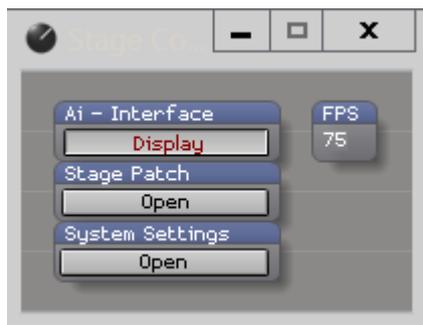


This number box will relate to the currently selected fixture, in this case the screen fixture. We can choose the type of model in the drop down menu – you can choose some basic model shapes here such as cube, sphere, cylinder, etc. We can also give our screen fixture a name in the Tag Name field. Next, we can change the X, Y, and Z positions of the screen, as well as set the width, height and depth. We can also rotate the screen fixture along the X, Y and Z axes. The resolution of the canvas can also be set here on the X and Y axes. Canvas scale & canvas move. Finally, we can view the screen fixture as a wireframe model by clicking the Wire Frame button, and also see our media on the fixture by clicking the Show Canvas.

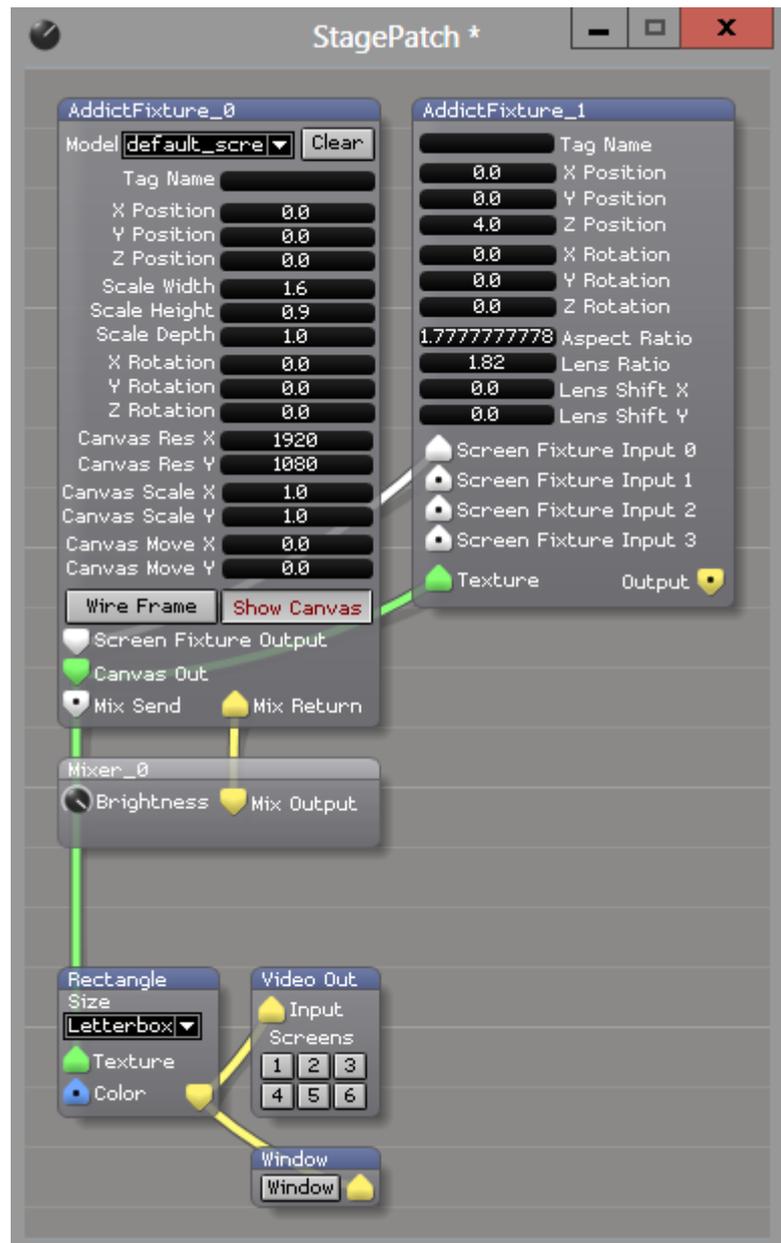
So let's set up our screen fixture to be a regular 16:9 HD screen. Click on the Show Canvas button to display the Ai logo and then set the Scale Width to 1.6 and the Scale Height to be 0.9. You will see the screen shape become rectangle after inputting the numbers into the box. You can also use the middle mouse scroll wheel to change values in the number boxes if this is easier – the scroll wheel will move through values in single unit increments, but holding the Shift button and scrolling will change in 0.1 increments, and using Shift and CTRL will scroll in 0.01 increments. Next, set the Canvas Resolution to be 1920 by 1080 on the X and Y axes. This should make the Ai logo look less stretched now.

Now we shall add a projector to the scene. Simply click on the projector fixture from the top menu and you should then see the projector added to the middle of the scene. By default, Ai drops this in at 0, 0, 0 within the 3d world so you will need to use the number box to position this where you need it. Select the projector fixture at the bottom of the screen so it starts flashing and you will see the number box change slightly. As before, we can set the values either by typing in the boxes or using the mouse scroll wheel. It is worth noting that the number boxes will accept maths functions, such as plus, minus, multiply and divide, which can be useful for setting the Aspect Ratio – for this example we want a 16:9 ratio, so simply type 16/9 into the Aspect Ratio box and hit enter. This should give you a number in the region of 1.777777778 and you will see the projector's outline match the shape of the screen.

To get the projector to see the screen fixture we have to do a simple bit of patching. This can be done by going to your top level window and clicking on the Stage Patch button.



Top Level Window



Stage Patch with Projector & Screen connected

With the Stage Patch open, You should see two large boxes; the one on the left is your screen fixture and the one on the right is your projector. To get them to see each other, we need to connect them. To do this, locate the white Screen Fixture Output from the screen fixture and click and drag to the white Screen Fixture Input 0 on the projector fixture. Also, click and drag from the green Canvas Out on the screen fixture to the green Texture input on the projector. At the bottom of the Stage Patch, you will see a Video Out module. This is used to send your video signal to the outputs of your machine. Select this module and use CTRL and C to copy it and CTRL and V to paste it underneath the projector fixture. Now take the yellow output from the projector fixture and drag it into the input on the Video Out module. With this connected, you can now click on the relevant screen number to send the video signal to the projector.

For a basic single screen setup, this should be the only patching you will need to do.

Now if you go to the Performance Page with the fixture selected and trigger a media clip you should see it displaying on your screen fixture.

This concludes this basic exploration of the Stage Construction page in Ai. For more help and tutorials, visit our website www.avolitesmedia.com.