



3D Animation

Animation Pro can create both anaglyph and side-by-side 3D animations.

Anaglyph 3D

Animation Pro creates two images for each frame, each at a slightly different angle. One image is created in cyan, the other in red. The images are then overlaid to produce a single anaglyph image (see top-right). When viewed using red and blue glasses, each eye sees one of the two original images. The brain interprets the angular difference between the two images as depth and thus the image appears to be 3 dimensional.

Side-by-side

Animation Pro creates two images for each frame, each at a slightly different angle. These images are rendered side-by-side (as shown bottom-right). These images will appear in 3D when played back on a device that supports the side-by-side format.

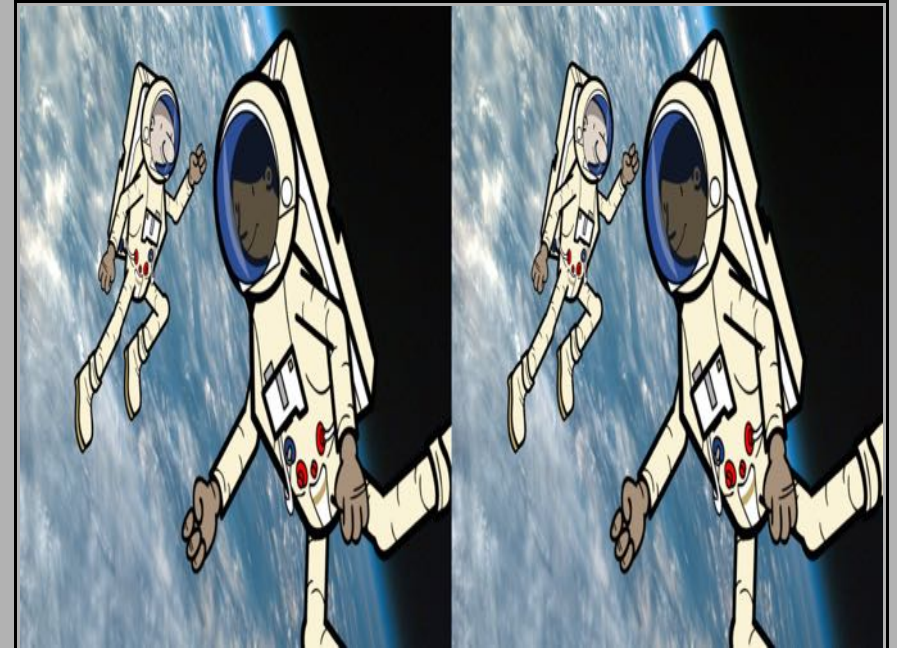
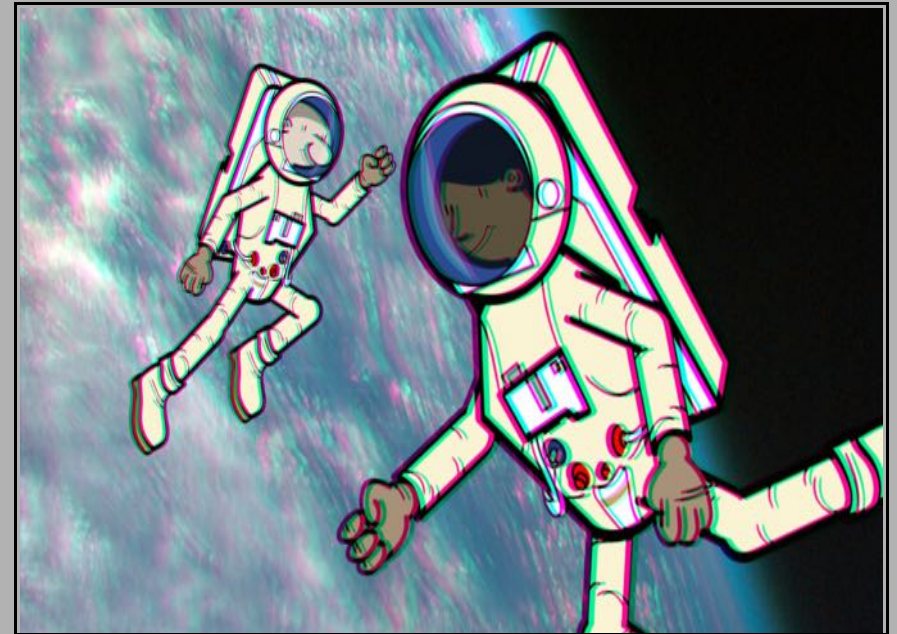
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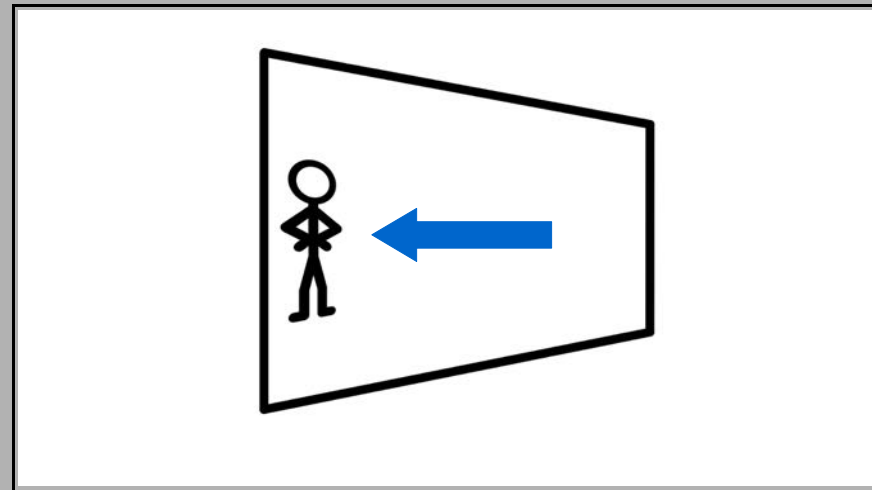
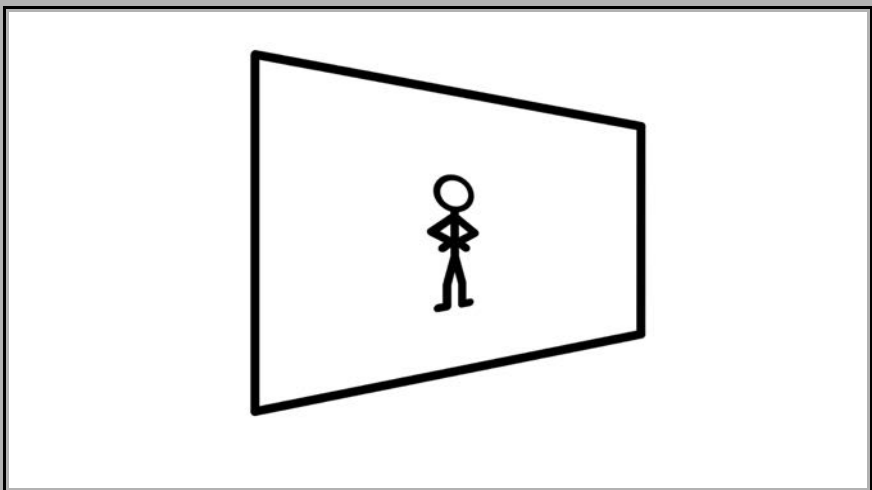
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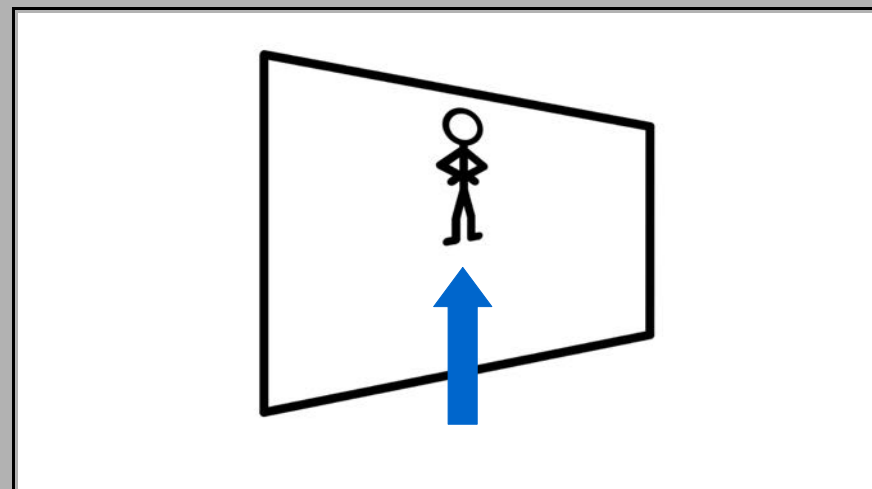
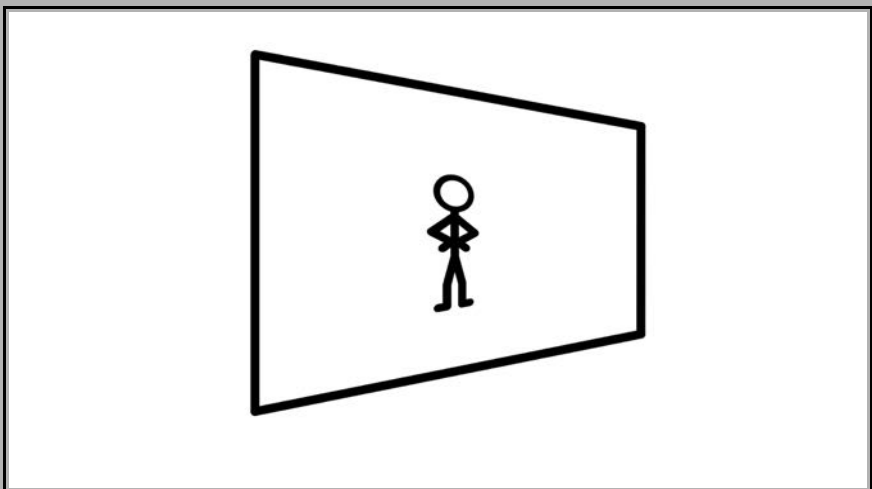
Animating in 3D

For the most part, creating a 3D animation is done in exactly the same way as creating a 2D animation. The only difference is that you need to tell Animation Pro where each figure is located in three dimensions instead of two.

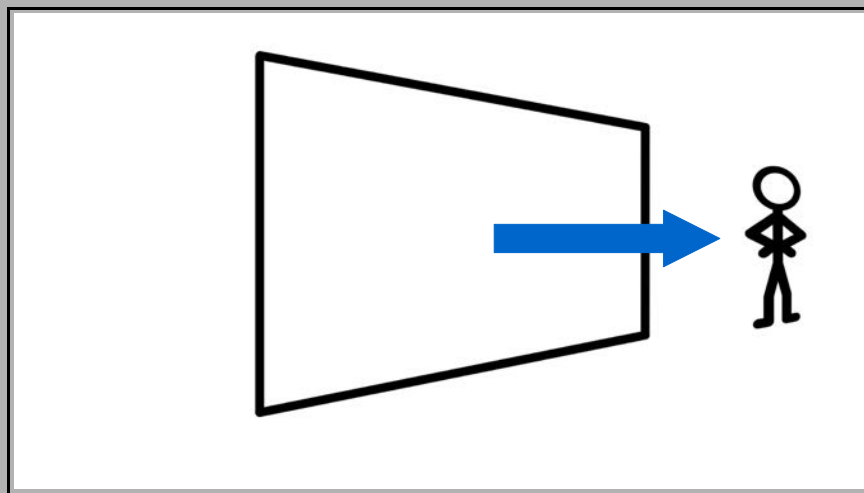
In 2D animations, figures are moved left and right along an X-Axis



or up and down along a Y-Axis



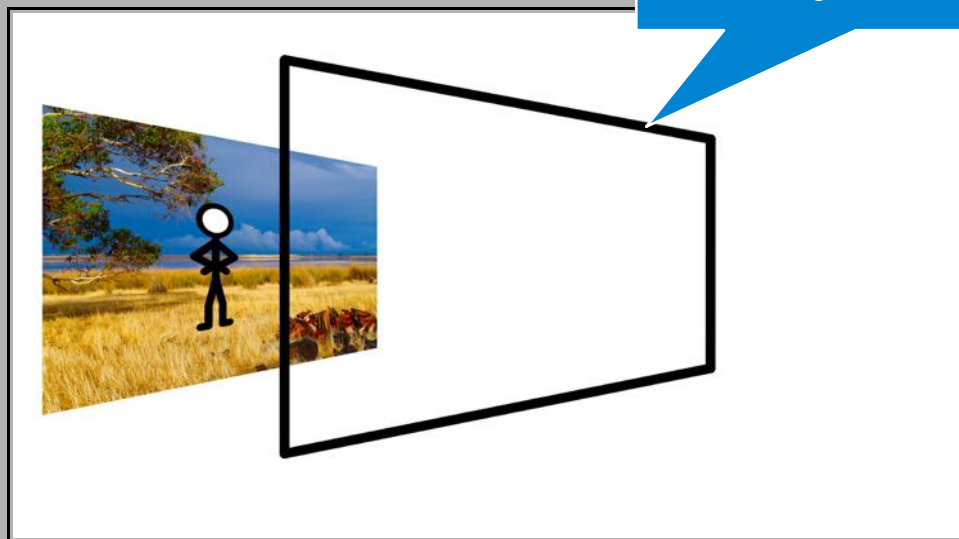
In 3D animations, figures can also be moved along a Z-Axis i.e. into, or out from, the iPad's screen:



In Animation Pro, a figure may be moved along the Z-Axis by adjusting its Z-Position where the Z-Position may have a value between 0.0 and 1.0:

The iPad's screen has a Z-Position of 0.5 i.e. when figures are given a Z-Position of 0.5 they will appear to be sitting on the iPad's screen.

Background images have a Z-Position of 0.0 i.e. they will always appear to be sitting behind the iPad's screen.



0.0 – The figure appears behind the screen (with the background).

1.0 – The figure appears in front of the screen.

Changing the Z-Position of a Figure

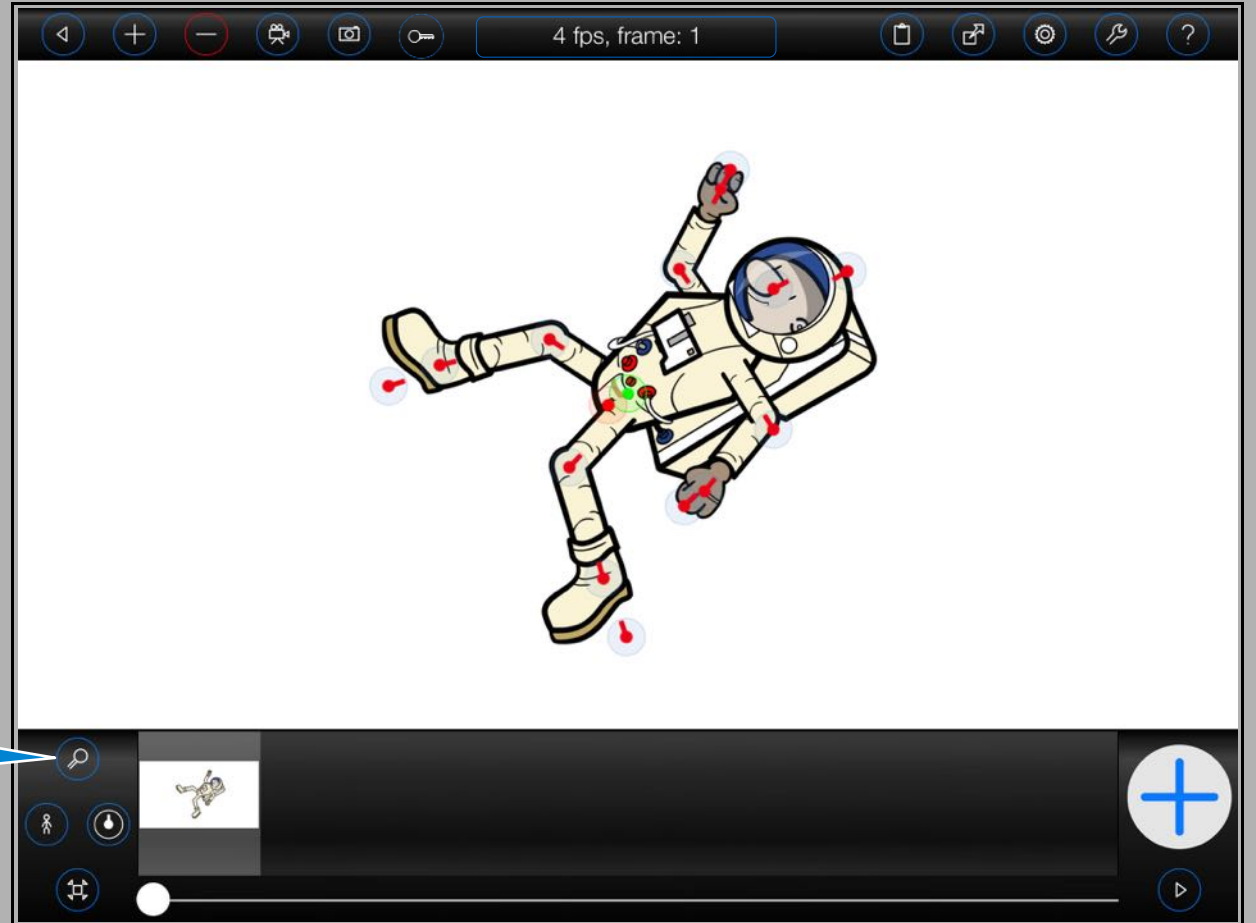
1.

If the 'Figure Inspector' is not visible, tap the



button.

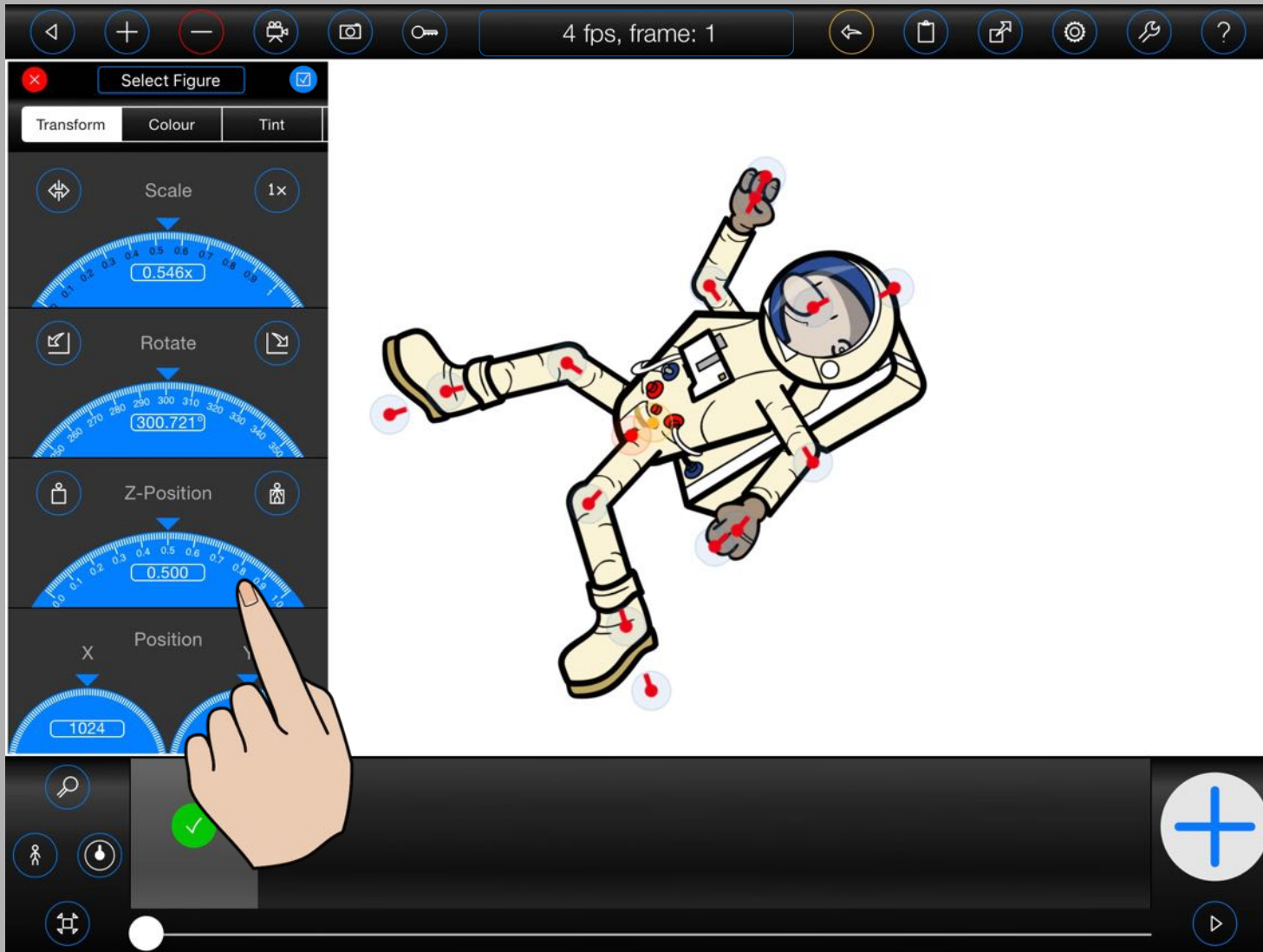
Tap here to open the 'Figure Inspector'



Animation Pro will display the 'Figure Inspector':

2.

Select the 'Transform' category at the top of the 'Figure Inspector' and rotate the 'Z-Position' dial left to increase the figure's Z-Position or right to decrease it:



You can also 'fine tune' the Z-Position of the figure, or quickly move the figure all the way to the front or the back, as shown below:

The image shows a software interface for adjusting a figure's Z-Position. The interface includes a top toolbar with various icons and a status bar displaying "4 fps, frame: 1". A "Select Figure" panel is visible on the left, with tabs for "Transform", "Colour", and "Tint". The "Transform" panel shows a "Scale" dial set to 0.546x and a "Z-Position" dial set to 0.500. The "Position" panel shows a "Y" dial set to 576. The main view shows a cartoon astronaut figure with red markers on its joints. A "Adjust Z-Position" panel is overlaid on the figure, displaying a numeric value of 5 and a set of +/- stepper buttons. A callout box points to the "Adjust Z-Position" panel, stating "Use the +/- steppers to adjust the Z-Position value". Another callout box points to the "Z-Position" dial, stating "Tap here to adjust the Z-Position". A third callout box points to the "Scale" dial, stating "Tap here to move a figure behind all of the other figures". A fourth callout box points to the "Adjust Z-Position" panel, stating "Tap here to move a figure to the front of all of the other figures". A fifth callout box points to the "Adjust Z-Position" panel, stating "Tap here to reset the Z-Position to 0.5".

Tap here to move a figure behind all of the other figures

Tap here to move a figure to the front of all of the other figures

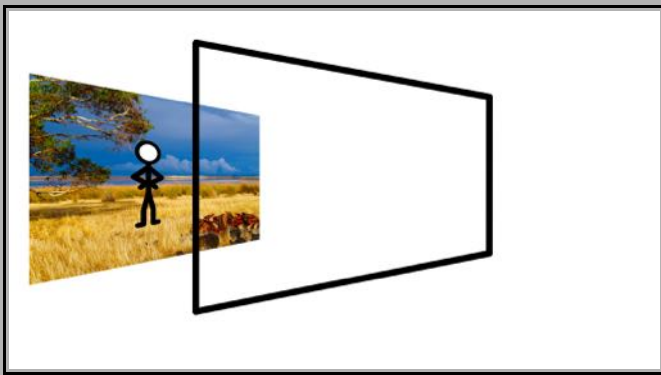
Tap here to adjust the Z-Position

Use the +/- steppers to adjust the Z-Position value

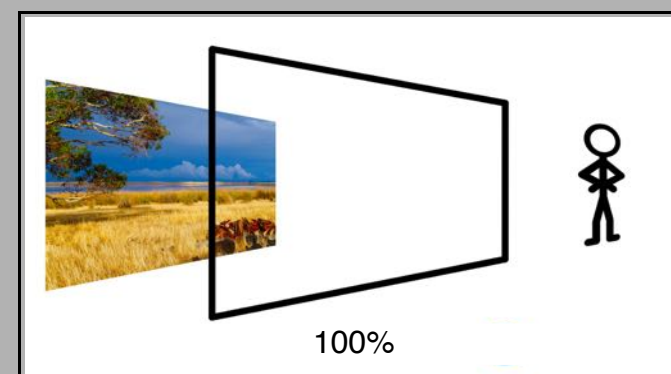
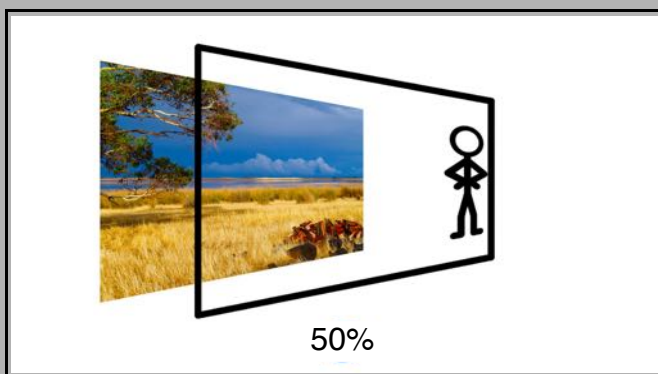
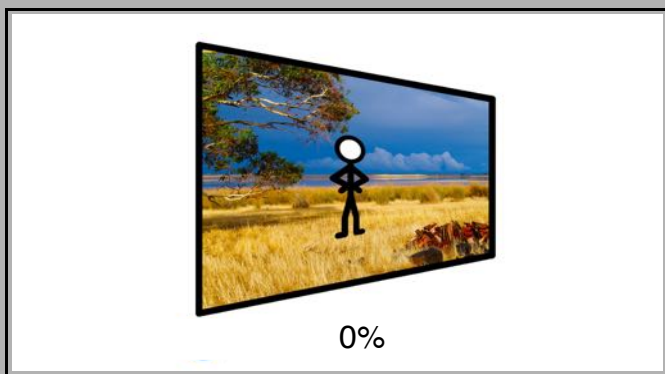
Tap here to reset the Z-Position to 0.5

Depth

So the Z-Position of a figure determines how far behind, or in front of, the iPad's screen a figure appears when an animation is rendered in 3D.



But how far is 'how far'??? Well, the total distance is known as the 3D depth (aka the 'strength' of the 3D effect) and Animation Pro provides a '3D Depth' dial that allows the 3D depth to be easily adjusted when previewing a frame or exporting an animation:




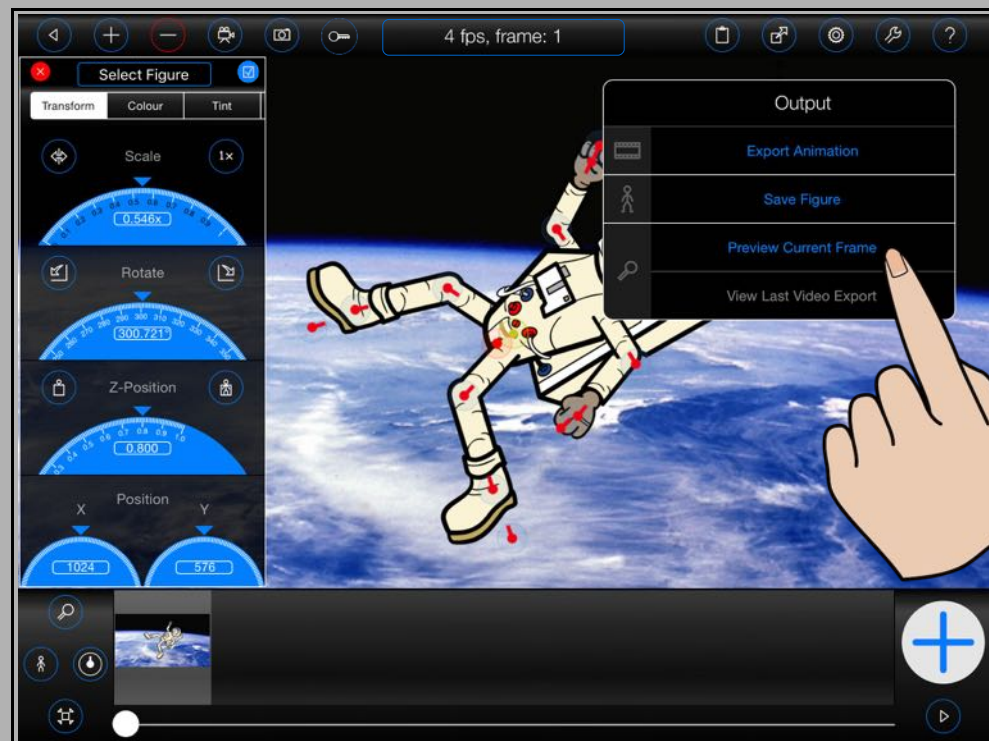
With the '3D Depth' dial set 0% (above left), animations will be rendered flat (effectively in 2D). With the '3D Depth' dial set to 100% (above right), the strength of the 3D effect may actually make you go cross-eyed and/or give you a head-ache. So please experiment with the dial and choose the setting that produces the best results for your situation.

Previewing in 3D



To see a quick preview of your current animation frame in 3D:

1.

Tap on the  button and select 'Preview Current Frame'



2.

Select either  or  depending upon the type of anaglyph 3D glasses that you own.

Drag the '3D Depth' dial to increase or decrease the strength of the 3D effect.

