

### Stereoscopic text effects

One text parameter that you may have spotted and I haven't yet mentioned is Stereoscopic settings. These affect the size and positioning even if you haven't set your project to 3D, although obviously you won't see the full 3D effect even if they move. The only control is the Depth setting, which moves the text closer (negative values) or further away (positive values). Each text layer can have a different value, so with a bit of work you can build up some interesting 3D effects for your Stereoscopic projects.

### Motions

The Title Editor has some pretty neat preset animations that you can't achieve on the timeline. It also offers an impressively comprehensive set of title animation tools, unless you are running the Standard version.

### Keyframing Faces

Something you may have noticed when the Face parameters were open in settings is that a set of keyframe controls follow each parameter. That might sound like a rather advanced feature, and indeed it is. Unless you use it sparingly, it's likely to give some very fussy, complex results.

### The Motions Tab

This feature is new to PS24. It gives you keyframeable control of your text, either at the Layer, Line, Word or Letter level. Yes, each individual Letter.

Simple titles are a mainstay of video production, and if you want to use more complex titles you can use pre-made ones from the Library, or add preset motions to your own creations, as described in the next part of this chapter. However, if you want to make something to really impress, Studio now gives you the tools. It's a thin line between impressive and a random looking mess, however.

Two attributes you will need are creativity and patience. Try to have a clear idea of what you want to see happening on screen before you start programming your moves. Keyframing was described to me by a very experienced editor as "Not a Spectator Sport" and he is spot on – you need to work carefully and methodically, and therefore pretty slowly.

An understanding of two advanced techniques are also required to get the best from Title Motion. Multi-parameter keyframing is described in detail in the In-Built Editor chapter when manipulating Properties and Effects. Animation in three dimensions is used in that chapter as well. Although I'll explain both in the following walk-through,

for more details and further understanding you might also want to explore those sections.

## The Title Concept

I am going to build a 10 second title to use at the start of tutorials consisting of the words “Pinnacle Studio Revealed”. It will be split into two lines – Pinnacle Studio in a large plain white font, and Revealed in a red script font – like the title on the cover of this book. The first line will animate in as if it is rotating on the inside of a cylinder which the viewer is just inside of. The second line will then appear from the side, a letter at a time. After a long hold, the top line will animate out, and the viewer will fly forwards through the hole in the letter R of Revealed.

If you would like to use some other text, please do, as long as it is similar. While the animation should still work when you change the Line text, there are anomalies when altering the Letter-by letter animation. I also must point out that this walk through was designed with an early version of the Motion feature; I’ve avoided workflows that might be quicker but appear to be unreliable at this stage of development.

## Creating the project

Motion is the third tab in the Title Editor, but before you can animate a title it needs to be created. Start a new project and place the Sample footage (or any other video with light and shade) on track 2 so that we have a background over which to judge the visibility of the text. You should turn off Playback Optimisation unless you have a slow computer – decoding text animations doesn’t require a lot of power. I also suggest you set the project setting to UHD – 3840x2160 – to create the sharpest title you can, although if your computer struggles, try 1920x1080 instead. My example uses a frame rate of 50i, the same as the PAL sample footage.

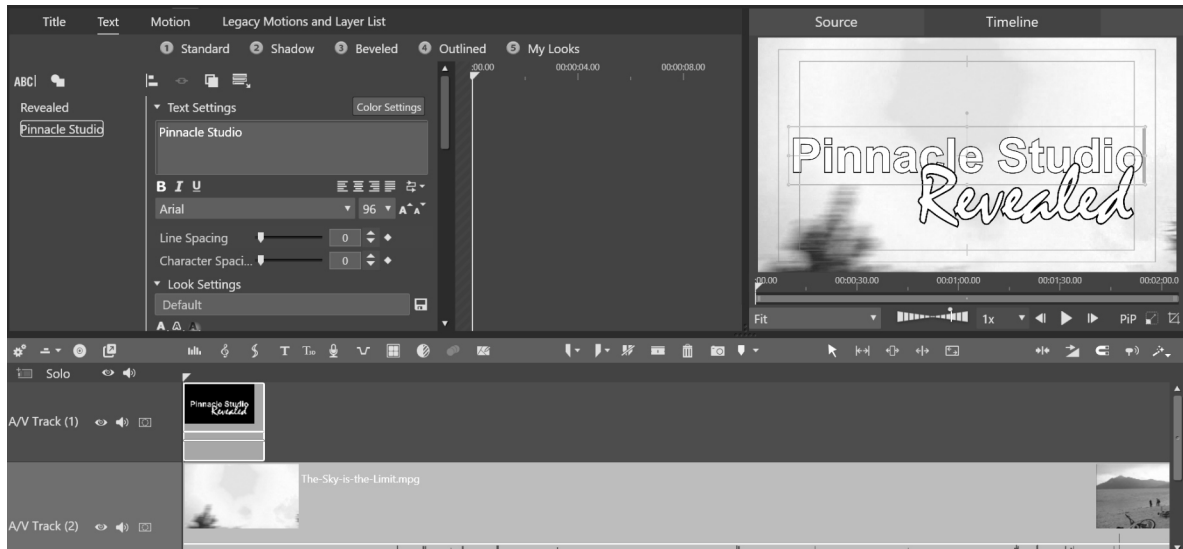
With the scrubber at the start of the timeline, click the T icon on the timeline toolbar. A default title is placed on track 1 and the In-Built Title editor opens at the text sub-tab. The default *Your Text Here* placeholder is in the middle of the Timeline preview. Change the duration of the title to 10 seconds exactly – there are a number of ways you might want to do this but the clip context menu option *Adjust Duration* is as quick as any.

How you achieve the following is covered in detail earlier in this chapter, should you struggle to make the basic title.

Change the text to “Pinnacle Studio”, the Font to Arial, the Size to 96 and make it Bold. It should be centre frame, but use the Group Align tool Relative Positions to ensure it is.

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Over the light sky, the white text is hard to read, so I'm going to add an edge. Click on the second icon under the Looks Setting box to add an Edge 1, change the size to 110 and then use the Fill colour selection to choose black, then click on apply. A crisp, thin dark edge makes the text much more readable.



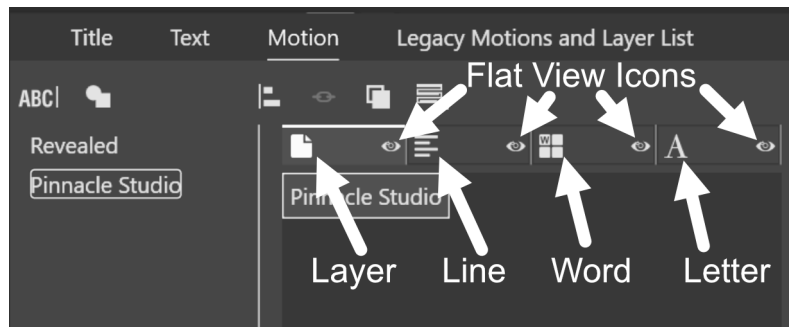
Now to add the second line of text as a separate layer, as we want to apply different motions to it. Click on the ABC icon at the top of the Layers panel and change the text to “Revealed”. Choose the Font Casmira and change the size to 170 – you will need to type that in as it isn’t a preset size. Switch off Bold. In the process of creating the layer, it should have inherited the same Edge 1 as the first layer, but if it hasn’t, try disabling and re-enabling Edge 1 or recreate the edge as before. Change the Face colour to pure red and click on Apply. Use the Group align tool to place the Revealed Layer bottom right. The title should now look like the screenshot. You should either save your project or title as **PSR\_Title\_1**.

## Animating a Layer

Firstly, I'm going to animate the Pinnacle Studio Layer. Switch the Title Editor to the Motion tab and click on the Pinnacle Studio layer on the left to ensure we are working on that element of the title.

Once you have switched to this view, a new object should appear in the title preview – a pink dot that represents the Pivot point about which rotations will occur. If you aren't seeing one immediately, switch between the layers and it should appear.

At the top of the settings panel should be a choice of four types of animation. Each tab has an icon indicating at which level it operates – Layer, Line, Word or Letter. Click on Word and you will see highlight boxes appear around the separate words, click on Letter and you get a highlight box for each letter. Each box also has it's own Pivot Point indicator



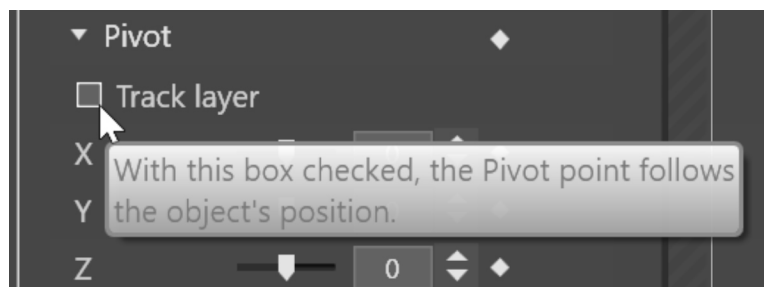
There is also an eye icon which will switch the display to Flat View – in effect removing any rotations that you might apply to help locate the text in complex situations.

## Pivot Point Tracking

Select Layer mode and check the Pivot set of parameters. We have looked at how the Pivot point operates when we explored the rotation of properties, but in the Title Editor you will see a checkbox that needs further explanation.

A Layer animation has just one Pivot point about which the rotations occur, but a Line animation has a separate pivot point for each line, and so on. If you use the Position parameters to move the Layer, Line, Word or Letter, however, you can choose if the Pivot point remains in it's default preset position or stays in the same place relative to the Position X, Y and Z settings, even when these are keyframed.

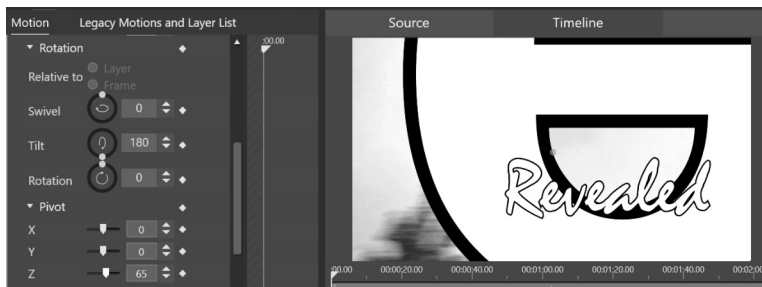
For example, with the Track Layer checkbox unchecked and no pivot point offset programmed into the animation, a Layer will always rotate about the centre of the video frame regardless of any positional changes you program into the layer. However, if to check the Track layer box the pivot point values become relative to Position values and therefore the Pivot Point follows the layer as it moves across the video frame so that you don't need to keyframe it separately



## Z axis

Before we start keyframing, it's worth experimenting with the Z Pivot Point – the distance the pivot point is between our view of the title and the title itself. With the Pinnacle Studio layer selected in the Motion tab and the Layer sub-tab selected, change the Tilt parameter by slowly dragging the white dot between 0 and 180. With Z set to zero, the title is spinning about its own axis. Change the Z value to 30 and repeat the test – you can see the layer now looks like it is spinning around a point in space closer to our view.

### *Adjusting the Z pivot point*



We want to give the impression that the viewer is inside the orbit of the layer. Set the Tilt to 180 and increment the value of the Z pivot. At 65, the layer is right in front of us – the pivot point is almost half way between us and the

original starting point of the layer. At 70, the text layer is now behind us.

This is the value I'm looking for. If you scrub round the Tilt value, the text goes just behind the viewer. Try the same with Swivel and the layer orbits the viewer. Keep these values in mind.

## Keyframing the orbit

Adjust your screen view so that the keyframe area is a usable size and collapse the parameters we aren't going to change – Position, Scale and Other. We have worked out a value for Z, so set it to 70 and then collapse the Pivot parameters as well – we aren't going to vary Z over time.

Now, with the scrubber at the start of the title, enable keyframes for the Tilt Parameter and then adjust the Tilt setting so that the text just disappears out of the bottom of frame – a value of -50 seems like a good choice. Advance the scrubber to one second and then reset the value of Tilt to zero. A new keyframe appears. Scrub or play the timeline to watch the animation. It's doing what I had hoped, but is perhaps a bit quick. You can click, hold and drag the keyframe to adjust the timing. Try a few values if you like, but then as I have settled on two seconds, set your keyframe to that point.

If you would like to see what happens if you combine a Swivel with a Tilt, you can try a value of -100 for the first position and zero for the 2 second mark. It's

interesting, but not what I had in mind for this title. Turn off keyframes for Swivel before we proceed.

We might as well set the exit animation while we are here. Scrub to 8 seconds and add a new Tilt keyframe, then to the end of the title and enter the compliment of the start position, 50 (instead of -50). With four keyframes, test the move. If at some point later on you decide to change the entry and exit speeds, it's just a case of dragging the two central Tilt keyframes.

I'm going to ask you to do two more things before we proceed. Because we are going to try to match animated moves between the two layers, add two

timeline markers that line up with the end of the first animation (2 seconds) and the start of the second animation (8 seconds). This will save us a little time later on.

I've saved this as **PSR\_Title\_2\_post patch**, because Pinnacle changed some of the title parameters with the 24.0.2.293 patch.

Two things are worth looking at while still in the Motion tab. Click on the eye icon of the Layer tab and the Preview will switch to Flat View – with a small message at the top of the screen letting you know when you can't see the results of your keyframing. Also, there is now a small keyframe diamond in the middle of the tab indicating that settings have been applied in this division – even if they aren't keyframed. Switch off flat view before you proceed.

## Where has my move gone?

Switch the editor back to the Text tab and you might get a bit worried – your time consuming keyframe work seems to be missing! However, it just seems that in the Text tab, Flat view is the norm. Switch to Motion or Legacy and you can preview your move. When you quit the Title editor by switching away to Library or Editor, the movement is restored.

## Letter by Letter

Now let's turn out attention to the next animation. Double click on the title to re-open the Title Editor, select the Revealed layer in the left panel and then switch to the Motion tab. Using the tabs along the top of the setting panel click on the fourth one



with the letter A. In the box below each letter of the title text in the layer has acquired a border.

Selection of the letters is done by single clicking with the mouse. Select the letter R and only that will have the orange border. If you want to multi-select letters, the usual windows shortcuts Ctrl-Click adds further letters to the selection, Ctrl-clicking again removes them. Click on the first letter and the Shift-click on any other selects all the letters between the two.

To start, we will animate the letter R. Select it on it's own in the box at the top of settings. It's in it's "home" position as defined by where it is on screen in the Text box, so all of it's co-ordinates and parameters are at zero – this would be the case regardless of where and at what angle it was on screen – the values are all relative so if you decided to change the home position of the text at a later date the animation would still work.

I'm going to change three parameters for each letter – X Position, X Scale and Y Scale. With the scrubber at the start of the title, activate keyframing for each of these with the small diamond to the right of the settings, then for clarity collapse the unused groups Rotation, Pivot and Other.

We now have a keyframe at the start of three tracks. I want to make the letter R smaller and start it off the right of the screen. Start by adjusting the X and Y Scale parameters to 50 to judge the effect of a half size letter – we don't want something too dramatic, so that will be a good staring point.

*Testing the scale change on a letter*



Drag the X position slider to discover a position where the letter is just off-screen. I've settled on a nice round figure of 60 so that it's easy to remember and type in when we come to adjust the rest of the letters.

We now need to set a holding keyframe to delay the move. It's going to look good if the letters start to animate when the first layer has stopped. Scrub to the position we marked on the timeline for the end of the first animation – 2 seconds – and add a keyframe for each of the active parameters. We have set a holding keyframe for the letter R.

Now to program the first letter's move. I'm not sure at this point how fast I want it to happen, so I'm going to program the move and then judge the speed. Scrub to 3 seconds and then double-click on the labels of the active parameters. This will set them all to the default "home" settings of zero, 100 and 100. Play the animation. Nice, but if we are going to apply the same speed to each letter the whole word won't have arrived on screen by the time the title is over.

To speed up the animation, we need to move the three new keyframes to their left. Scale the keyframe tracks by dragging on the timecode header until you are seeing individual frame divisions. Draw a marquee around the new keyframes to select them all, then drag them to the left – try to place them just two frames away from the holding keyframes. Play the animation and the letter almost jumps into position, you don't get enough movement to give the impression of it travelling.

Briefly hover over the timeline settings icon to check your projects framerate. If it is 25p or 50i you have PAL defaults. If it is 30p or 60i, you have NTSC. I'm going to suggest you try a fifth of a second for the move which is five PAL or six NTSC frames. (If your timeline has defaulted to 50p or 60p then the values are 10 and 12 respectively.) By the way, it doesn't matter if you discover you are creating a title at the wrong frame rate – it will be changed to suit whatever project you add it to.

Adjust the move so that the third set of keyframes are just a fifth of a second to the right of the holding keyframes, then play the animation. That looks like a proper move now. With eight letters to animate it's going to take less than two seconds to get them on-screen so let's go for that – we can always adjust them later.

Incidentally, I found that with an early build of PS24, carrying out a lot of keyframe dragging caused the program to start misbehaving. If you start to see odd behaviour, and in particular your animations stop previewing correctly, you might want to save the project and restart Studio.

The next job is to animate the rest of the letters, and this can be a bit tedious, but there is a feature that will help speed things up a little.

Switch to the second letter of Revealed by clicking on the "e" box to the right of "R". The keyframes are all removed but replaced with "shadow" markers – hollow diamonds where the other keyframes were. Scrub to the start of the timeline and set Scale X and Y to 50. The letter shrinks. Now set Position X to 60. The "e" will disappear off the screen – it's gone to the right. Now activate keyframes for these

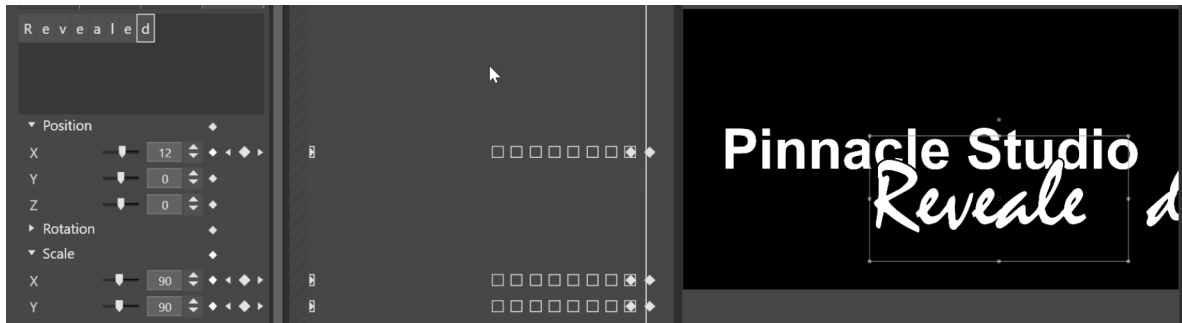


three parameters and the familiar white diamonds will appear inside the shadow markers at the start of the timeline.

We want the letter “e” to start moving when the R stops. Place the scrubber on the third set of shadow markers and add new keyframes for each active parameter. Those are the holding keyframes.

Scrub right a further fifth of a second, then reset each of the parameters to the default, restoring the letter to its home position. Test the animation – I think you can start to see something interesting taking shape. The next bit is boring; repeat the above set of instructions for the remaining letters of the word Revealed. Each one needs to start moving when the previous one has stopped and take a fifth of a second to move to it’s home position.

*The final letter moving into place*



If you cut corners and place the keyframes by eye, you might end up with an uneven animation. On the other hand, you could want a more “organic” look to the moves, in which case you don’t particularly want high precision. However, I found that while making this title that even one set of keyframes being misplaced by one frame can be detected as a mistake!

I’ve saved this stage as **PSR\_Title\_3\_post patch**.

## Zooming through the R

Having spent a lot of time plugging in numbers to achieve the letter-by letter effect, you might be thinking that you will have to do it all again for the final animation – Zooming through the letter R. Fortunately, that’s not the case. We can apply the same movement to all the letters, either by selecting them all while in Letter mode. or switching to the Word or Line mode. I’m going to use the latter method. With “Revealed” still selected as the layer, switch to the Line tab. For this animation I’m going to use the X, Y and Z Position parameters, so with the scrubber at the start of the title, activate keyframes just for those three.

Notice that wherever you now place the scrubber, the parameters have reset to their “home” defaults – you are in effect adding a new animation on the line as a whole, regardless of what is going on in the Letter tab. Those shadow keyframe markers are still there to help you should you need them, but in this case we don’t.

I’m using the Z parameter instead of Scale here to make the title bigger – the viewpoint is flying forwards. In this case the effect would look the same using Scale, but it would not occur relative to the Z pivot point, should you have changed that.

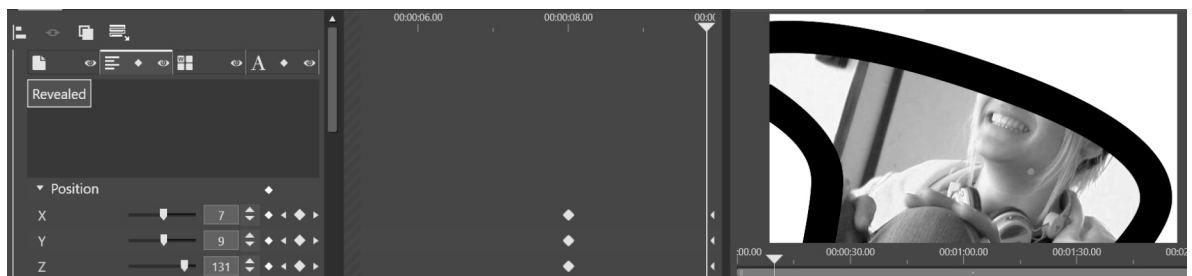
Scrub to eight seconds – there should be a timeline marker to help you. Now add additional holding keyframes for all three parameters.

Move your keyframe scrubber to the last active frame of the title. (In early builds of Studio there was a keyframe window error – you could scrub one frame past the end of the title. Make sure you can still see the Revealed text by being one frame from the end.)

I used a bit of trial and error here to set up the X and Y positions and make the viewer feel like they were flying through the letter R. Set the Z parameter to 100 and you can see by how much the end frame is missing my target. It only takes a few clicks of the up and down arrows now to deduce what the end parameters for X and Y need to be to centre the hole up – X=7 and Y=10 looks close enough. Now slide Z to a higher value still at 140 to create a clean frame.

As you make those adjustments, the keyframes at the end of the title are automatically updated, so you can test your animation straight away.

*Flying through R*



This is my final version, and I’ve saved it as **PSR\_Title\_4\_post patch**.

## Changing the text

If at this point you want to change the text content of a Layer or a Line, you can do so without destroying the keyframing. You can change the font, colour and look as well. However, if you try to edit a Letter by Letter or Word by Word text animation, you get odd results or lose the animation entirely. Even if you replace one letter at a

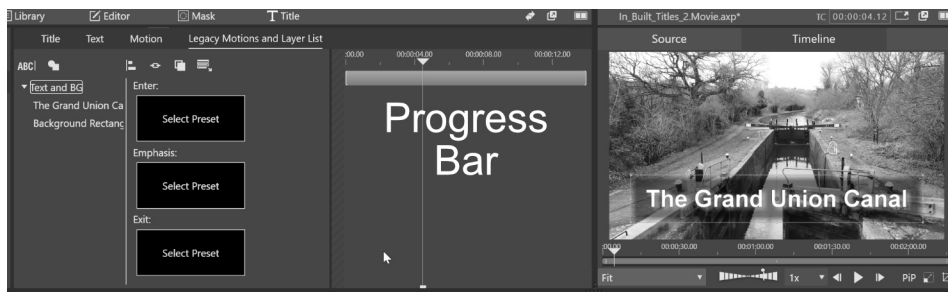
time, the keyframing goes out – in the case of the current title, changing Revealed to Tutorial results in all the letters after the first one overshooting their home position and then settling into place. An interesting result, but not what we want. Hopefully in time Pinnacle will address this problem.

## Legacy Motions

These are the original motions that were possible prior to PS24, They can be programmed using the final sub-tab of the In-Built Title Editor.

Let's take a look at what is possible using the title we created for the Drone Movie, saved as **In-Built Titles\_2**. Re-open the project if you closed it to work on the Motion tab, then select the Title editor by double clicking the title on the timeline. Now select the Legacy Preset sub-tab.

### *The Legacy Motions in the Title Editor*



Each title layer can have three separate types of Motion. **Enter** effects bring a title onto the screen, **Emphasis**

acts on the title during the time it is on screen. **Exit** takes it off the screen. Each layer can have all three, and their relative durations are variable for each effect and each layer.

Many of the motions act on a letter by letter, word by word or line by line basis. Even some of the effects that apply to the whole page layer have some very impressive 3D effects that would take quite a bit of setting up using keyframes.

The panel to the right now contains a progress bar rather than keyframes.

## Adding an Entry Motion

In the Layers panel on the left highlight the text layer *The Grand Union Canal* so that whatever motion we add will affect just the text. The central pane of the title editor has three choices. Click on the top one – Enter.

A filmstrip style selection will open up at the top of the screen, and for our first example just hover you mouse over *Type*. Although you should be able to preview the effect automatically when hovering, it can be a drain on graphics cards, so click on the effect to apply it and then play it.