

The image is a dynamic credit sequence for 'DELUKA'. The word 'DELUKA' is written in a large, bold, white, sans-serif font with a black outline, centered horizontally. Below the text is a large, stylized graphic of an eye. The eye's iris is a solid magenta color, and the pupil is a black circle. The eye is drawn with thick black lines, and there are various splatters and brushstrokes in black and magenta around it. A pen nib is visible at the bottom left of the eye graphic. The background is white with magenta and black splatters and brushstrokes. There are also some faint, light-colored geometric shapes in the background.

DELUKA

Tutorial

DYNAMIC CREDIT SEQUENCES

Produce a short, explosive credit sequence using Adobe *Premiere*, *Flash* and *After Effects*...

For this tutorial, multi-discipline studio Clusta shows you how it created a short but dynamic credit sequence for up-and-coming electro/indie band Deluka. HDV footage was taken using a Sony Z1E HDV Pro and edited down through *Premiere 2.0* and *After Effects 7.0*. Both applications are more than capable of handling HDV footage and even though the end result will be rendered back down to PAL widescreen 16:9, there will be a notable difference in the quality of the output.

The band's video was shot in a disused warehouse loft in Hockley, Birmingham, with kind permission of

The Oxygen Rooms music studio. The video is still in production, but the central theme is a mass of cabling that was set up around the band members' feet. This cabling transcends into animated lines and graphics which explode around the band members' heads.

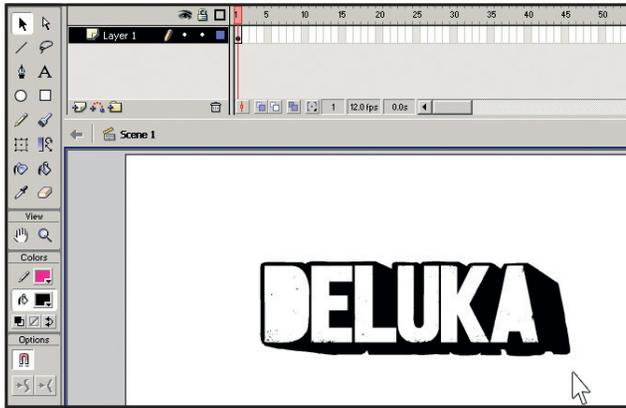
The closing panning shot detailed over the following pages is a simple handy-cam pan inspired by an old 70s TV that the band got hold of. Camera matching is used to give a real sense that the graphics are in the space. >



Expertise provided by Clusta. Once completed, the full video will be available to view online at www.clusta.com and www.deluka.co.uk.

Part 1: Animating the logo

Add some effects to your logo in *Flash* so it's ready to bring into *After Effects*...



1 First, you need to create the text elements that are going to feature in your video piece. This particular piece is an outro, so it's going to involve the band's logo and some production credits.

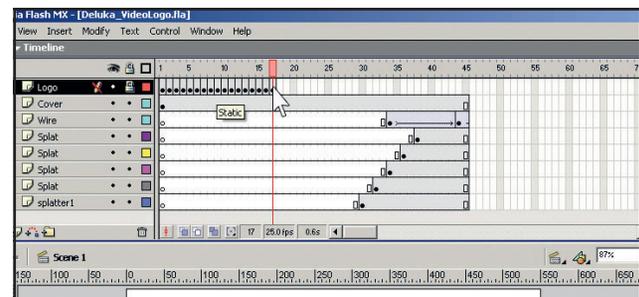
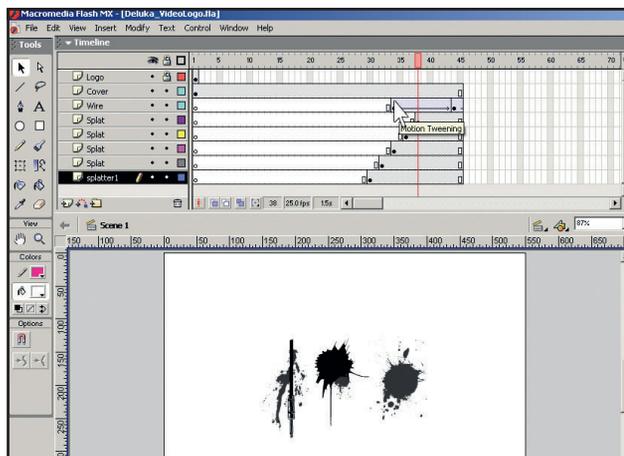


2 The band, Deluka, already has a logo, but we want to add a few bits to it. We do this in *Flash* so we can animate the logo and then bring it into *After Effects* to composite within our scene. We add in some splats and a wire graphic to make the logo more dynamic and to give us the opportunity for more animation.

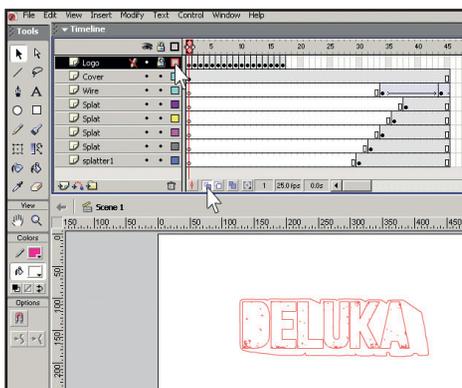
Flash settings

When working in *Flash* and exporting for video it's usually worth keeping your *Flash* settings in line with your video, so you know where you are on the screen. This means if you're working in widescreen, your *Flash* stage size should be 1,024x576 at 25fps; PAL 4:3 would be 720x576 25fps. Here, we just need graphics with alpha backgrounds – we'll do our positioning in *After Effects*.

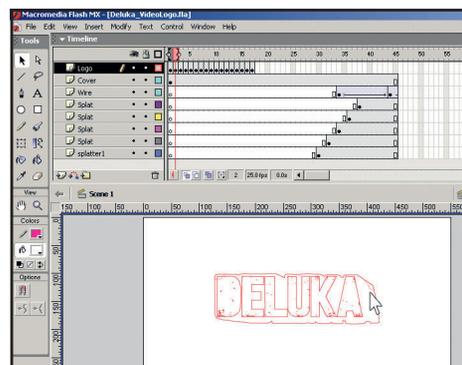
3 In *Flash*, divide the elements of your logo into individual layers for animating. In this case, the splats are being staggered in and the wire will have a simple Motion Tween downwards. We've used a white block on the layer above to act like a reverse mask because masks can't be exported as frame sequences.



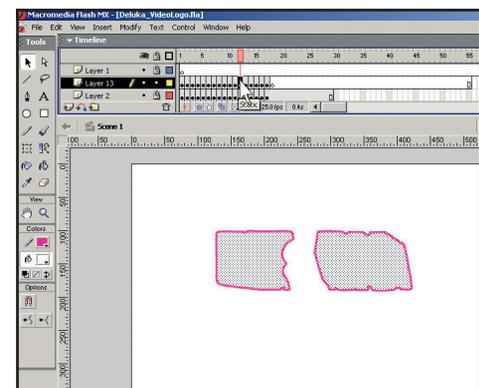
4 Set your animation frame rate to 25fps in *Flash* (Modify>Document). It's important to remember that you cannot export a mask animation from *Flash* – instead, it has to be on the timeline. We want the logo to appear as if it's drawing itself in from either side. To do the same, move your logo to its own layer, break it apart so that it's just shapes on the timeline (Ctrl+B or Cmd+B) and create 17 keyframes of this shape by selecting 16 frames in front of it and pressing F6.



5 This is a more traditional approach to animation, but it's often much quicker. Start at frame 1 and click the 'onion skin' marker so you can see what you're doing. You can also outline the layer by clicking the outline option above the timeline – this will also give you better visibility.



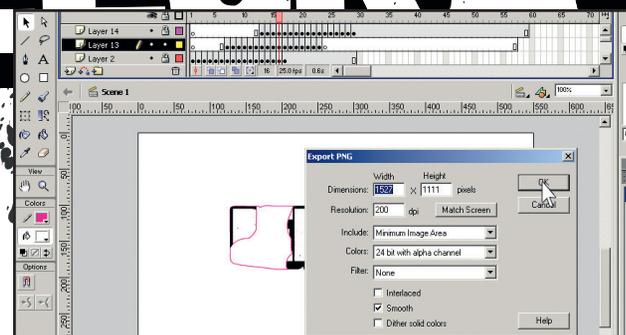
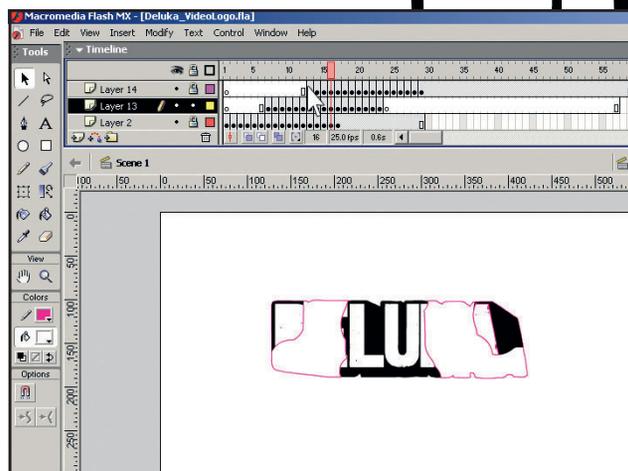
6 At frame 1 we rub out all of the logo excluding its two corners. In frame 2 we can see exactly what's contained in frame 1 because 'onion skin' and 'outline' are on. Now we rub out everything again but leave a little more of the logo. We repeat this process until all of the logo is visible, then we play it back to review our animation.



7 Next, we select all the keyframes, copy them, create a new layer and paste them into it. We go through each frame by selecting the frame (this selects our object) and giving it a white fill by choosing the white fill option while everything is selected. It's then outlined using the outlining tool.

DELUKA

8 Once we've applied this technique to all the frames, we select the keyframes and move them six frames to the right – this will stagger the animation. We create another duplicate of the first layer's frames and paste them in a layer above everything else, then we move them six frames to the right again and play back the sequence.



9 Once your movie is complete, export it from *Flash* as separate PNG files. Go to *File>Export Movie* and select PNG in the 'Save as type' dropdown. How big you want the graphic to appear in the scene will affect how high a resolution you should use. Select appropriately and export to a folder. We're using PNGs because they compress well and use alpha channels.

Part 2: Using HDV

Capture your footage in *Premiere* and load it into *After Effects*...



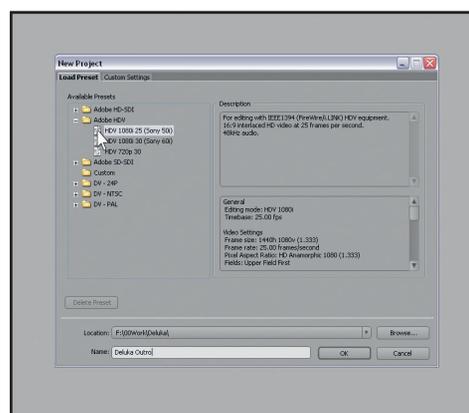
1 We've filmed all our footage for this project in HDV (High Definition Video) using a Sony Z1E HDV Pro. You can hire these cameras relatively cheaply, record onto normal Mini DV tapes, capture your footage into the computer and then return the camera. Even if you're rendering back out to PAL 720x576 or 16:9 resolutions, you'll still find that the grade of your footage will be better having used HDV.

File sizes

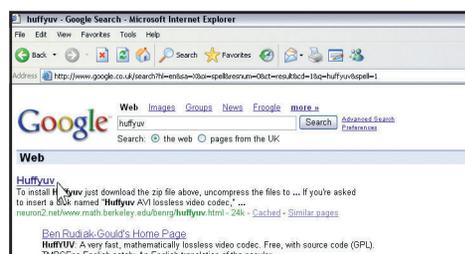
One thing to be aware of when using HDV or HD footage is the size of the files – expect frames exported from *Premiere* to be 4.5MB each! Make sure you have plenty of hard disk space before embarking on an HD project. In this case, we have used a lossless compression Codec to deal with the file size issue.



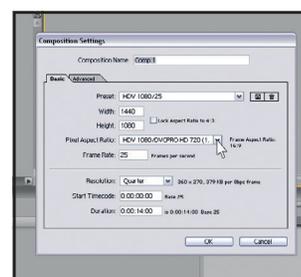
2 We're using *Premiere 2.0* to capture our footage, which is more than capable of dealing with HDV footage and 32-bit colour depths.



3 In *Premiere 2.0*, use the HDV 1080i settings with a 16:9 aspect ratio. Once your footage has been captured and is on the timeline, select the bits of footage you're happiest with and export them, dragging the Work Bar to the start and end points of the footage and going to *File>Export*.



4 We're now going to use a codec called Huffy. It's free to download – just do a search for HuffyUV in Google and download it from the most appropriate source. Install it and you'll then have the option to export using this compressor. HuffyUV is a fast, lossless Win32 video codec. 'Lossless' means that the output from the decompressor is bit-for-bit identical with the original input to the compressor. 'Fast' means a compression throughput of up to 38 megabytes per second on an 416 MHz Celeron. Use the HD Anamorphic 1080 (1.333) settings to keep everything at 16:9. Use the maximum bit depth and tick the Deinterlace footage option. Hit OK, set a suitable folder to render to, and render.



5 Open *After Effects* and choose your project setting. Use the HDV 1080/25 preset with a 16:9 aspect ratio then set the length of your composition and hit OK. Go to *Files>Import*, select the footage file and hit OK. Right-click (Ctrl-click on a Mac) on it in the project window and select 'interpret footage'. A dialog box will appear, in which you should select 'lower fields first' from the Fields dropdown.

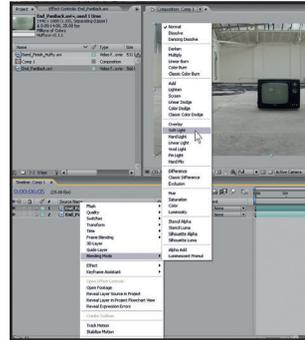
Automatic

When you import your source footage, *After Effects* sets the field order, frame rate, alpha channel interpretation and pixel aspect ratio automatically. You can manually override these settings to make sure that the footage you've imported is being interpreted correctly. Note that the settings in the Interpret Footage dialog box should match your source footage settings – not the settings you wish for your final rendered output.

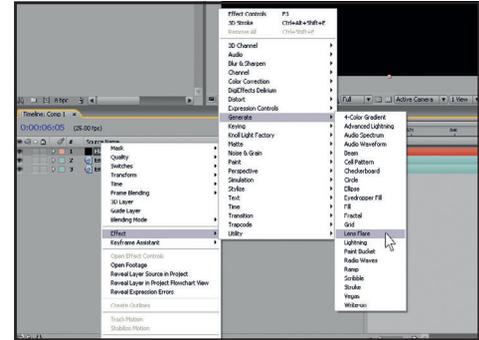
Part 3: Lighting the footage

Lens flare effects can look good. Here's how to animate one into your scene...

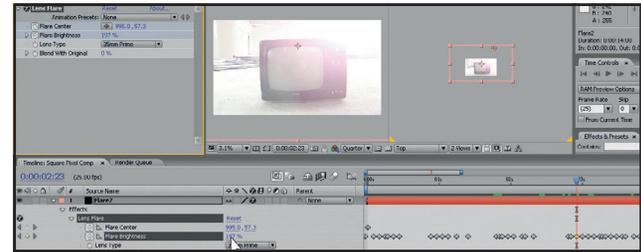
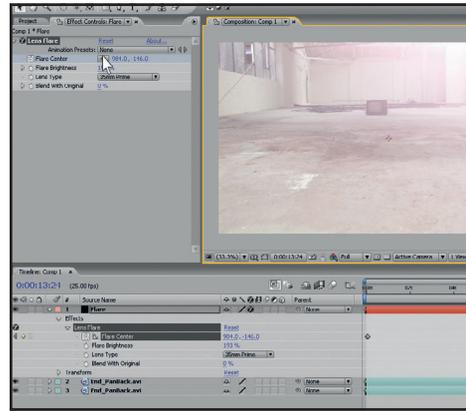
1 Drag your footage onto the timeline in *After Effects*. Now you can use the application to create a film grade. Your footage should already look quite good because you're dealing with HDV, but you can make it even better. Duplicate your layer and Right-click or Ctrl-click on it in the timeline then go to Blending Mode>Soft Light. This will give you a little more definition to the overall look.



2 Try adding a lens flare to give the footage a nice gradient of light. Add in a solid layer (Layer>New>Solid) and call it Lens Flare. On the timeline, Right-click or Ctrl-click on the footage and select Effect>Generate>Lens Flare. Here, we've used the 35mm prime preset from the Lens Type dropdown. Position the lens flare using the Flare Centre option as it would be within the scene – click on the icon and then click on your footage at the point where you think the source might be.



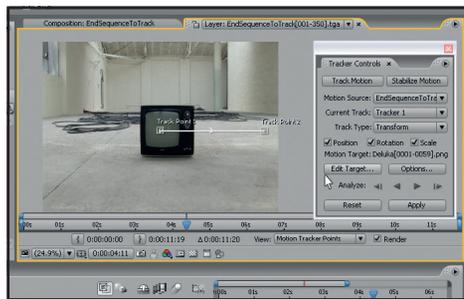
3 The Flare Brightness has been set to 193 per cent. We don't want the lens flare to be too obvious – we just want a nice gradient pool of light. You can achieve this result by selecting the layer and increasing its scale to 200 per cent. You then need to animate the flare to coincide with the footage, so go to frame 1 and click on the Lens Flare clock icon next to Flare Centre – a keyframe will be added in at this point. Go to the end of the footage and use the Flare Centre tool to re-select where you think the flare should be. The lens flare will now alter its position between the two keyframes.



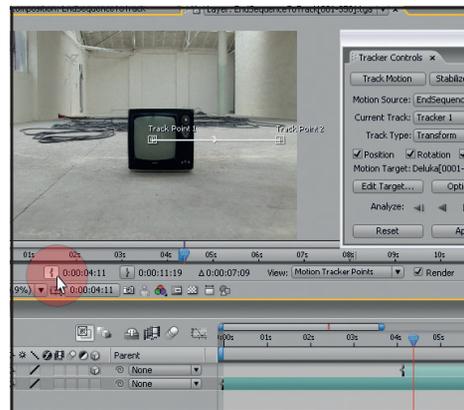
4 Animate the flare so it flickers. Go to frame 1 and click on the clock icon next to Flare Brightness, move slightly further forward on the timeline and increase the Brightness slightly. Move forward a couple of frames and take it down, then repeat this for five or six keyframes. Select all your keyframes, and copy and paste duplicates on the timeline. Move these further along the timeline, and repeat until you have a random set of keyframes across the sequence. Play it back and tweak if necessary.

Part 4: Tracking functions

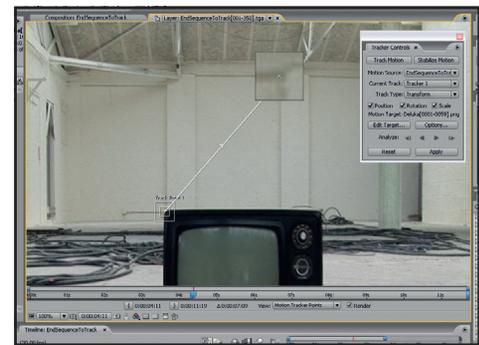
Match the movement of the camera by using the built-in tracking functions in *After Effects*...



1 First, select the layer you want to track in the timeline. From the top menus, select Animation>Track Motion. *After Effects* will automatically open the Tracker Controls panel if it's not already open, and the selected layer will be displayed under Motion Source. A new track will be created and its name will be displayed in the Tracker Controls panel for the Current Track. Click Edit Target, and choose the footage that you want to inherit the movement displayed in the source footage. Select Position and Rotation as well as Translation – in this case, we want to track the full range of camera movement as the camera moves back through the scene.



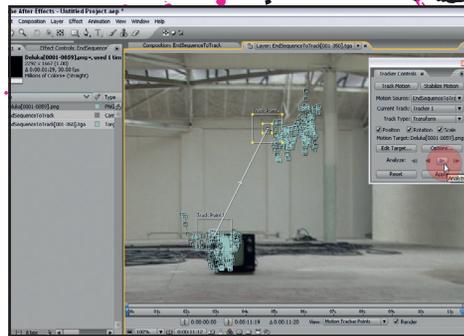
2 We only track a selected range of footage because the TV screen fills the entire shot for about the first 40 frames and we want to see the room in its entirety. Define the work area you wish to track in the Layers panel by setting the in-point and out-point, then move the time indicator to the first frame on which the tracking should begin.



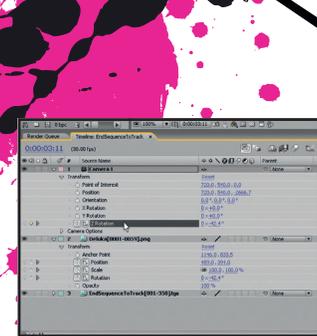
3 The last step before you can begin feature tracking is to position the trackers over the features you want to track. These need to be as individual and as contrasting as possible. In this instance, we tracked the corner of the TV because it provided a sharp black edge against a white background. Pay particular attention to which features you decide to track: they should be as distinctive as possible, such as the corners of buildings, and they shouldn't disappear behind any other objects in the movie, or trackers will fail.



4 Click the Analyse Forward button in the Tracker Controls panel to begin the feature tracking. Pay careful attention to the position of the trackers ensuring they're sticking to the feature you wish to track. If the markers slip off the feature, press the stop button and correct the problem by moving the tracker back into the correct position. You might need to increase the size of the search area – this is the outermost box of the tracker – to include a greater movement range. If you find that the tracker is having difficulties sticking to an object, you may need to pick a different feature to track, one that is in a higher contrasting area of your movie.



5 Once *After Effects* has analysed the movement of the features, and you're satisfied with the position of the attached tracker throughout the footage, click the Apply button on the Tracker Controls panel. This will then create keyframes for the layer you've selected under Edit Target. If you're only tracking position, you can choose to constrain the motion to the x or y axis. The layer to which you've applied the motion should appear to stick to the source layer.

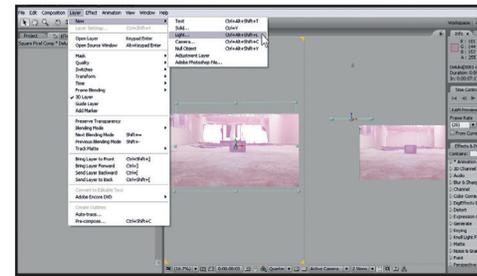
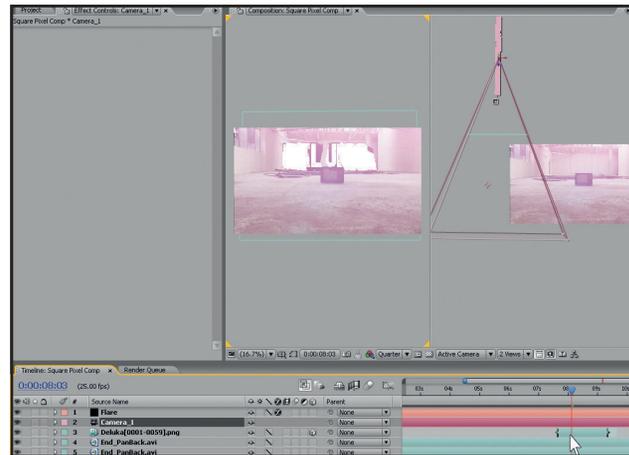


6 If you want to add a camera into *After Effects* to match the movement you've just captured, you can do so by simply copying the keyframes generated by the feature tracker, selecting the camera's Rotation and Position parameters, and pasting in the appropriate keyframes.

Part 5: Working in 3D

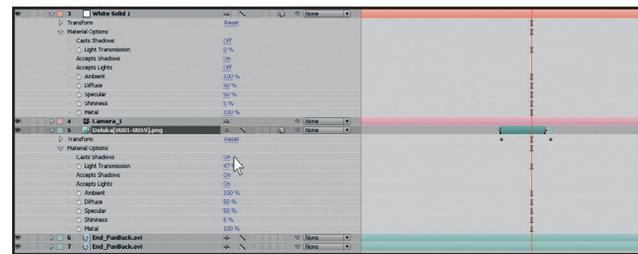
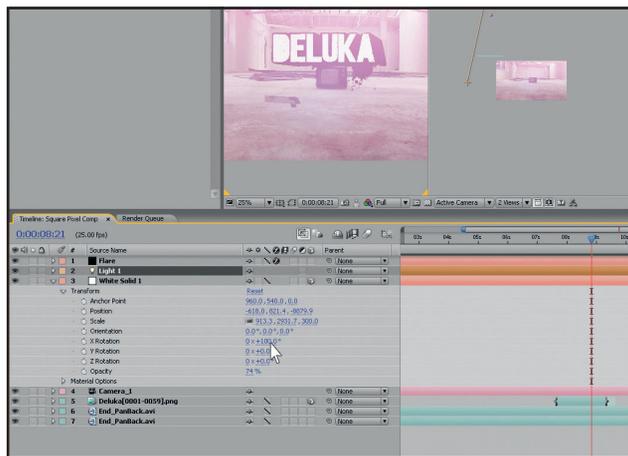
Add your logo and some additional graphics to your footage in *After Effects*...

1 You should now have some camera data that's emulating your footage. Next, you need to import your logo so it looks like it's 'in the scene'. In *After Effects*, import the PNGs you've created (File>Import>File), locate the first PNG, tick the box that says PNG Sequence and hit OK. Your footage will now be in your project with a transparent background. Drag your footage onto the timeline and click on the '3D layer' icon represented by a 3D box. Your footage will now be visible by your Composition camera – if you switch to '2 Views' in the Composition screen, you'll be able to see better what's going on. Select one screen as your Active Camera and one screen as a Top View so that you can see what your camera is doing in 3D space.



2 In the top window, roll over your logo object and when it says 'Z', drag it around to see your logo moving backward and forward within the 3D environment created within *After Effects*. In this instance, we've created a shadow for the logo. To do this you need to add a light to the scene (Layer>New>Light) and then create a floor for it to cast shadows on to. Simply create a solid layer (Layer>New>Solid).

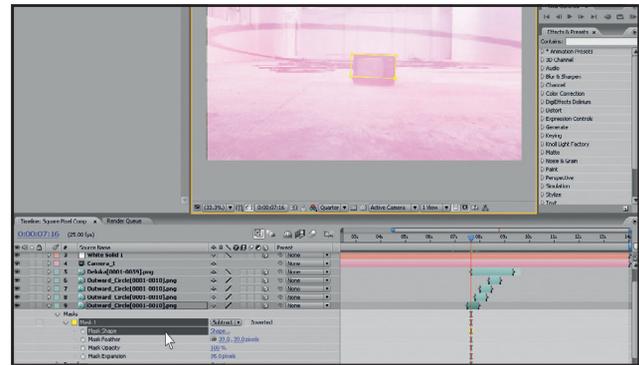
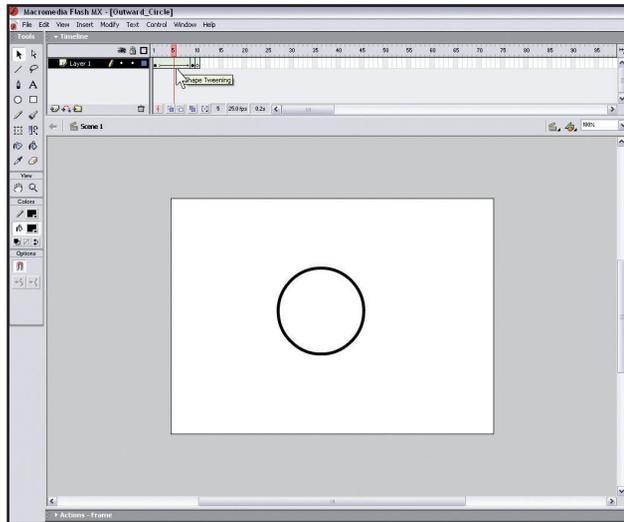
3 Make sure the solid layer is white, so that once a shadow hits it you can select Multiply as the layer's blending mode and be left with just the shadow. Make the solid a 3D layer by clicking its 3D icon and then adjusting its X Rotation value. This would ordinarily be 90 degrees for a flat surface, but adjust it until you're happy.



4 Expand the White Solid layer's properties on the timeline and you'll see a Material Options dropdown. Make sure that Accept Shadows is turned on. Now select your logo layers, and ensure Cast Shadows is turned on. Check the preview in the project window, and adjust the position of your light if necessary so that you can see the shadow being cast on the Solid. Go back to White Solid>Material Options and turn off Accept Lights. You'll now be back to having a bright white solid with a shadow. Set the White Solid's blending properties to Multiply and watch the solid disappear with only the shadow left.

Working in 3D continued...

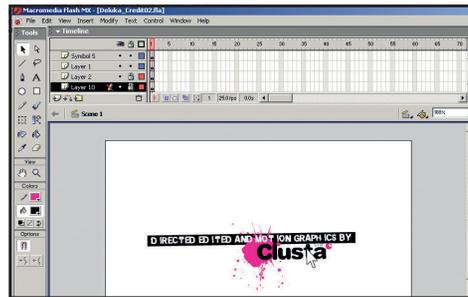
5 You can use the same technique that we've just outlined to add some graphics into the scene. In this instance, we've created a water ripple graphic in *Flash* simply by Shape Tweening a circle with an outline of 10 through 10 frames to a circle 600 per cent bigger with an outline of 0.5. Export this as you've done with your logo and import it into the timeline in *Flash*.



6 We drop this graphic on the timeline, adjust its X Rotation again to give it a 3D appearance and set its blending mode to Overlay. What we want to do here is mask out part of it so it looks like it goes under/behind the TV. We select our Rectangular Mask tool from the toolbar at the top of our scene and draw a square around the television onto our graphics layer. We then use the Mask Feather, Shape and Expansion properties to get it just right, and these can also be animated over time.

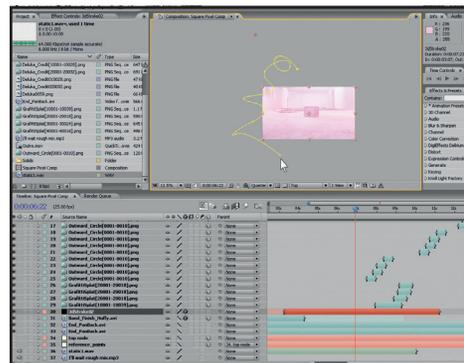
Part 6: The credits

In the final section, we create our end credits and animate some wire effects...

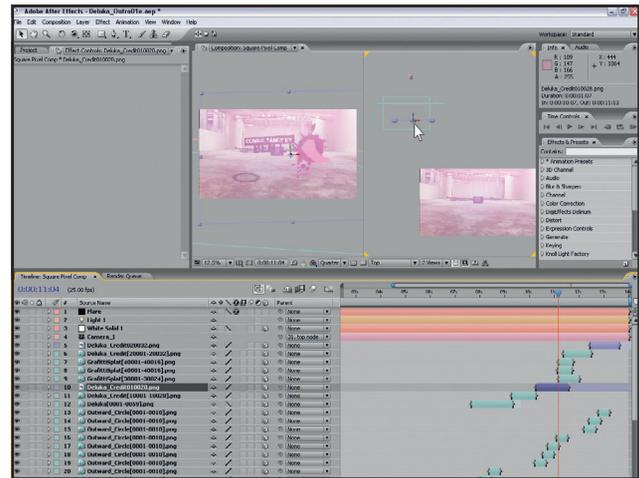


1 We're featuring just two credits at the end of this video, but they need to be a fluid part of the end sequence. With this in mind, we're going to treat them in the same way as the logo. First, we lay out our credits in *Flash*. Then we divide the elements onto separate layers. We Shape Tween the black line in and Motion Tween everything else using a slightly flickery, low-fi feel.

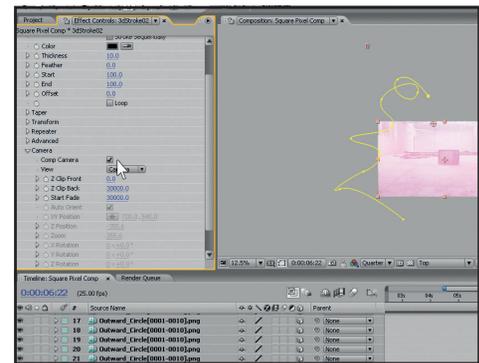
3 Now we use a great plug-in from a company that produces some of the best plug-ins for *After Effects* – Trapcode (www.trapcode.com). This plug-in is called *3dStroke* and it enables you to create realistic looking animatable lines in 3D space. It can also be used in combination with other plug-ins, such as *Shine* and *Starglow*, to produce some interesting effects. First, we create a new solid layer in *After Effects* and name it *3dStroke*. With the plug-in installed we Right-click (Ctrl-click on the Mac) on our layer in the timeline and select Effects>Trapcode>3dStroke. We then select the Pen tool and draw a line on the screen.



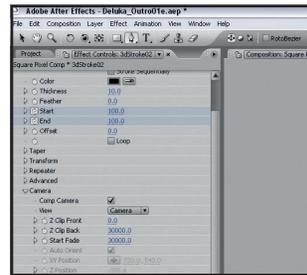
2 We import the credit as we did the logo, making sure it's a 3D layer in *After Effects*. Our camera is moving backwards, so we position the two credits further in front of the logo in the order that we wish to view them, so that our camera pans back through them as they appear. As the credits appear, we want the logo to disappear so that the aesthetic doesn't become confusing and hard to read. We do this by incorporating one of our splat graphics. It animates on and off and, at its peak, completely obscures the Deluka logo. At this point we turn off the Deluka logo layer, so once the splat has animated out it has disappeared. This gives us a nice fluid transition between the two.



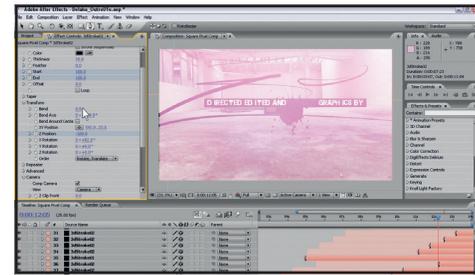
4 In the Effects window we scroll down to Camera:Camera Comp and tick the box. This uses our active camera to display 3dStroke. In the Taper dropdown we tick Enable, then in the Transform dropdown we adjust the X rotation and position it until it sits where we want it to.



5 We move to the frame where we want the line's animation to begin, and hit the clock icons to Start and End on the *3dStroke* Effects panel. We set them both to zero, move along the timeline and set the End value to 100. We go a little further along the timeline and set the Start value to 100, then we play back and watch our line animate.



6 We repeat these steps using slightly different lines staggered throughout the animation. It's possible to adjust the line's structure by selecting the layer it's on, and dragging the nodes on the vector with the Arrow tool until they become different. We can also radically alter the look of the lines by going to the Transform dropdown and upping the Bend value – this means the line looks like it's sweeping up and over your other objects. **CA-9**



Expert profile: Matthew Clugston

Clusta's Matthew Clugston runs a multi-discipline studio in Birmingham, where he's as happy working with illustration as with motion graphics...



BACKGROUND:

Matthew Clugston received a BA Hons in Negotiated Studies at UCE. He is Creative Director of Clusta Limited, a studio he set up in 1997. The company works across a number of disciplines: web, new media, print, branding, 3D, motion graphics and animation.

YEARS PRACTISING AS A CREATIVE:

Twelve.

CLIENTS:

DMC Records, Pacha London, Creation Financial Services, Graduart, InTheDetail, Style Birmingham, University of Central England and Type3.

MISSION STATEMENT:

"WeDesignWeCreateWeBuild. YouLove."

WEBSITE:

www.clusta.com

Left: An illustration commissioned by the Midlands lifestyle magazine *City Living* to promote a competition Clusta ran to win a website.

Below: This graphic was created as an identity for bespoke furniture creators *InTheDetail* (www.inthedetail.co.uk). The image includes a selection of extrusions from the company's furniture designs, which were then multiplied along paths.

