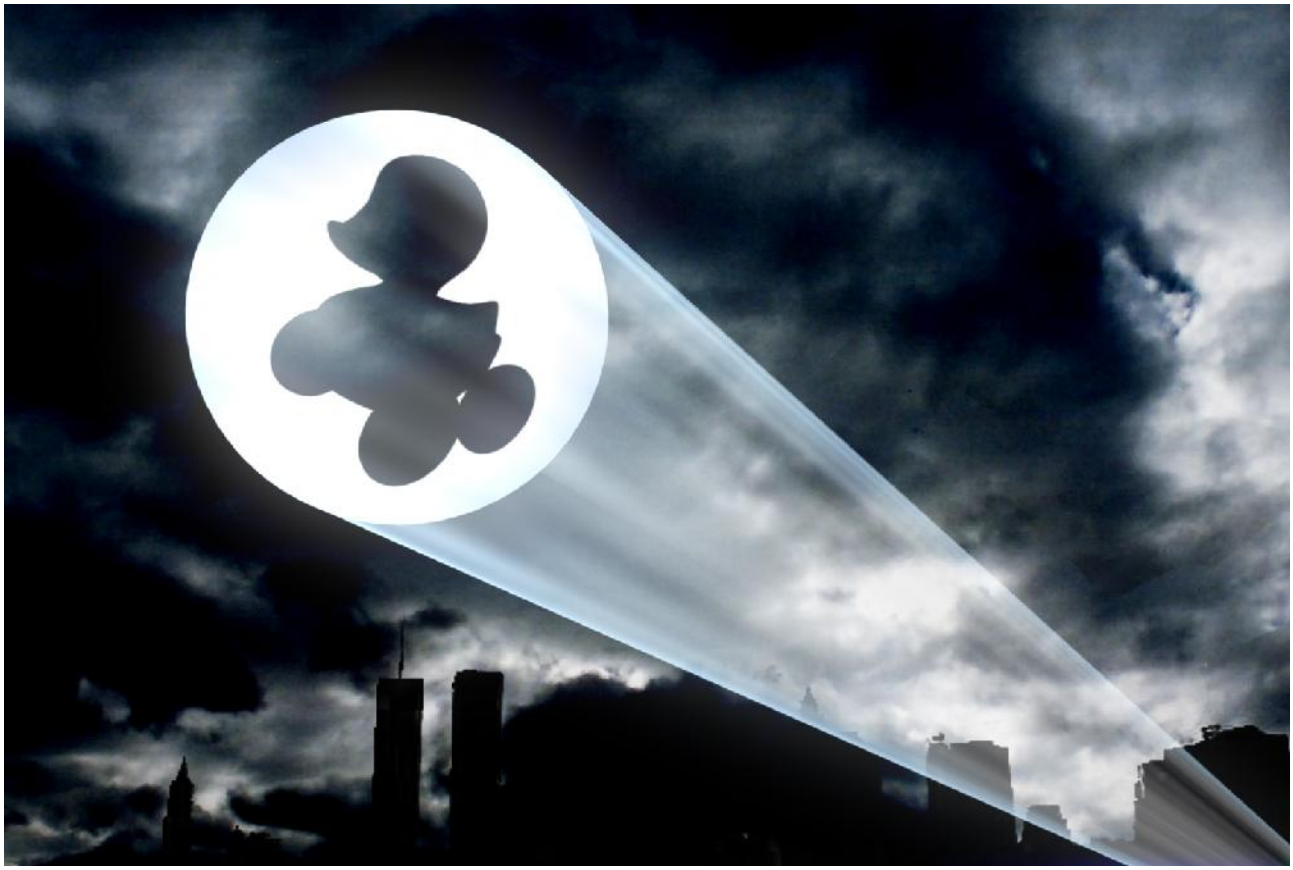
Maya QNA_87	First published in 3DWorld Magazine February 2007
Question:	*How do I create a searchlight that projects a logo into the sky like the bat sign out of Batman? – UNIX1, VIA THE FORUMS*



How does Batman's Mum call him for his tea? "Dinner,dinner, dinner, dinner, Batman!" Yes, it's an old joke. But did you know that the biggest joke of all about Batman is the bat signal? Somehow the laws of physics do not apply to that searchlight. In the real world, when light is shone into the sky it carries on forever until the photons dissipate into the ether. Not so with the bat signal. It stands for truth, justice and the complete disregard for the laws of nature.

However, for some reason it has never been questioned, except by people who want to reproduce it in 3D. So, how do you create something that is not physically possible? Well, plainly and simply, you cheat.

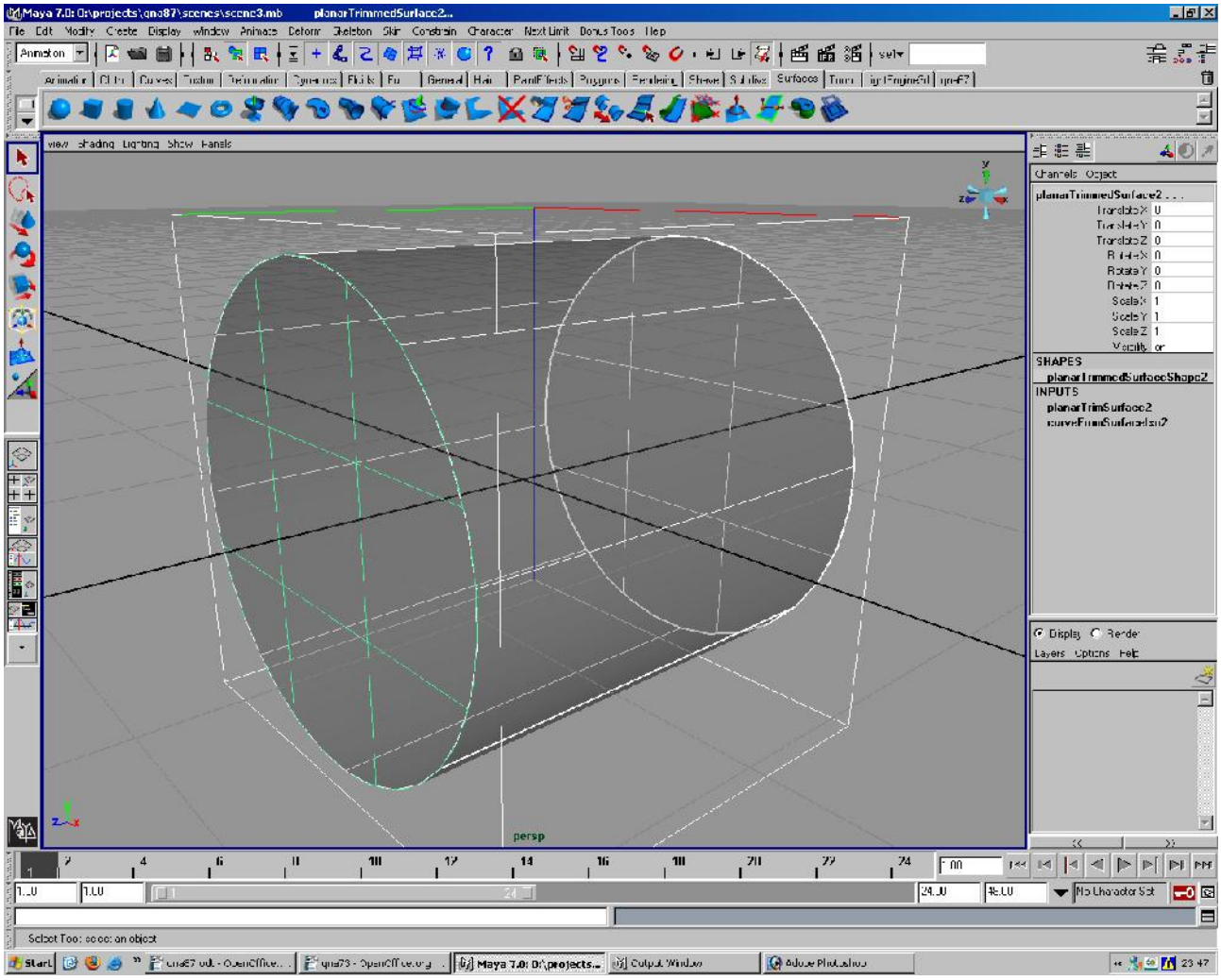
What you need to create a branded searchlight is a NURBS cylinder. Yes, that's right, a boring primitive.

Make a nurbsCylinder in Maya. Now rotate the cylinder -90 degrees in X so the top is facing forwards. In Component mode select the end isoparms in turn and use Surfaces > Planar to cap the

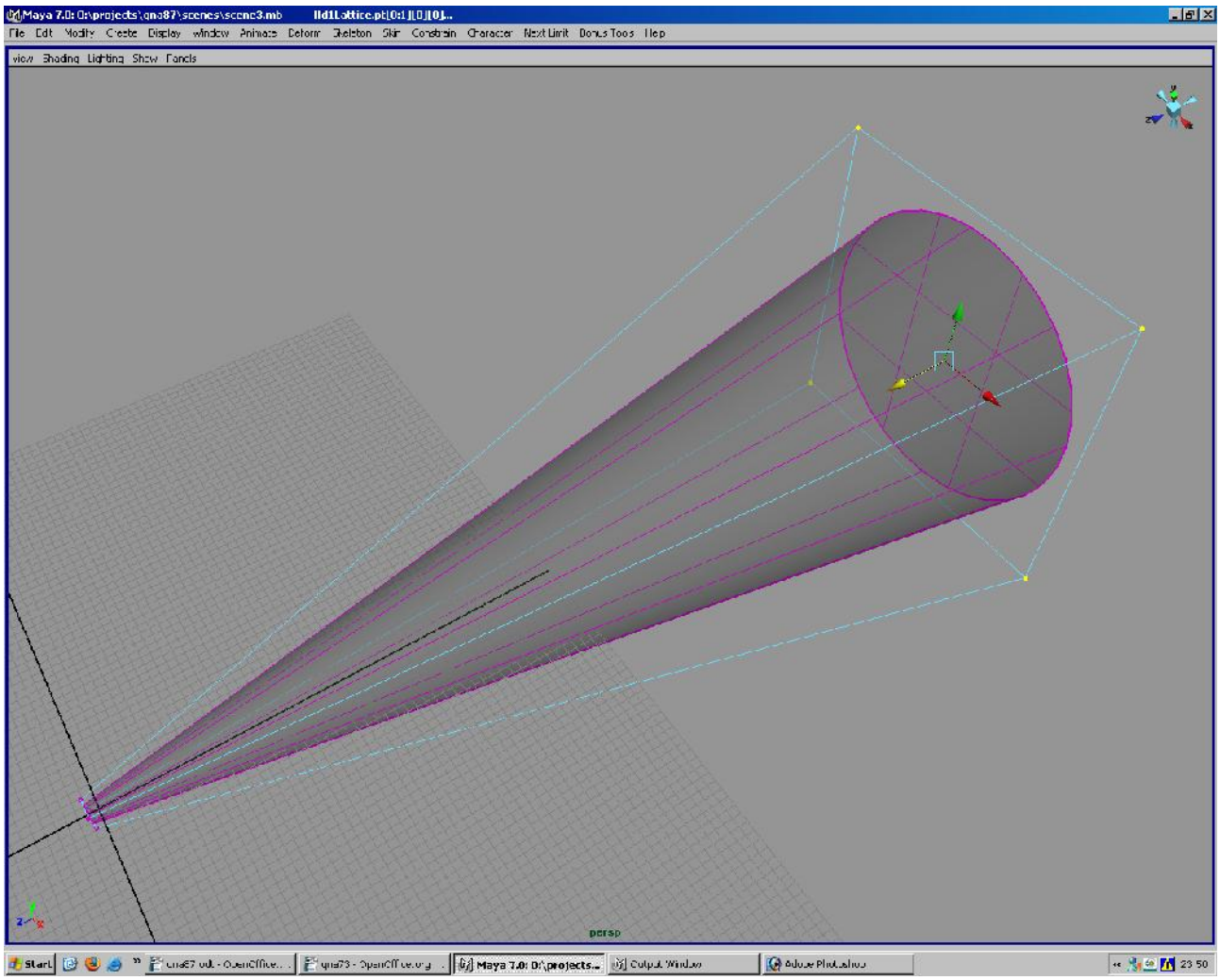
top and bottom, making sure you have History turned on. Now select just the cylinder and add a 2x2x2 Lattice deformer to it, to give you control over its overall size. Selecting the back four lattice points, scale up and pull out a ‘beam’ shape.

Add a Lambert shader to the cylinder and another to the planars. In the Transparency of the planars’ shader add your symbol as a texture map. In the Hypershade, create a Reverse node and plug the map into its input and then the Reverse’s output into the Incandescence. Repeat the process in the other shader on the cylinder, but use a 2D

Noise node instead with its Noise type set to Wispy. These are simple selfilluminating shaders which you can tweak and twiddle to your heart’s content. To show the creative possibilities, we’ve created a ‘wheely-duck beam’, but you could project any image you like.



● One cylinder, two planars and a lattice make up the beam. It’s as simple as that



● Model with History on. This way, if you pull the back lattice points, the planar should go with it

Q&A TIP

● For a terminating light beam, follow this tutorial. If you want something which looks a little more realistic, try using a volumetric cone primitive