

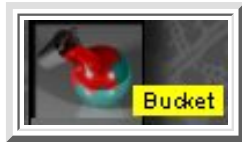
# Intermediate

## Making and Animating a Plasma Tube

Without the bands selected they may be hard to see, so we'll go ahead and paint them now. So go to the paint workspace. *(pic. 52)*

Select a black color off the color swatch *(pic. 53)*

Then select the paint bucket tool. *(pic. 54)*



If a band isn't in the window select one from the choose list then paint it, by clicking in the window anywhere. Then choose the other one and bucket paint it to.

Now they should be clearly visible in composer. *(pic. 55)*

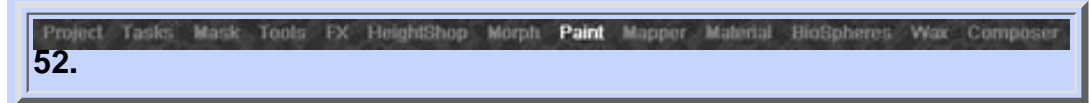
Before setting up how the plasma will animate, let's build a hierarchy in case we need to manipulate ( scale or position ) the model. I like to use an object located in the center point of the model as the parent in the hierarchy, that way it's easier to use the parent's properties menu to position the model . For this model the Biosphere is basically the center object , so we'll use it as the parent. Since the biosphere is hidden inside the glass tube, hide the glass tube using the hide option. ( The eye symbol next to the glass tube name on the project list.) Since you can't see the glass tube now we'll link it to the biosphere by selecting the glass tube's name on the project list. *(pic. 56)*

Then selecting the link to parent tool. *(pic. 57)*



Then click on the biosphere, it will turn red briefly then the glass tube will be listed under the biosphere on the project window showing it's a child of the biosphere now ( you may need to click on the white arrow next to the biosphere's name to make it point down to see the biosphere's children) *(pic. 58/59)*

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You can select the child object from the project list then click on the parent, with the link to parent tool. Or you can click on the object you want to be the child, then the object you want to be the parent. So to finish making the hierarchy click on another object then the biosphere and continue this process until all the objects are linked to the biosphere.

When your done, all the objects should be listed under the biosphere name on the project list. **(pic. 60)**

Leave the glass tube hidden for now and we'll start setting up the plasma ( biosphere ) animation.

There are several ways to place key frames in Pro for this tutorial we'll move the time line and let Pro add the key frame.

First lets add more biospheres to the existing one's we have. Go to the biosphere work space and use the add biosphere tool to add about 8 more in the middle of the 2 end biospheres. Keep the middle biospheres smaller then the end biospheres so the won't come through the tube when we render. **(pic. 61)**

Go to top view and make sure the new biospheres are inside the 2 end biospheres. **(pic. 62)**

Now go back to composer to start setting up the timeline for animating the plasma.

You may need to expand the project list window to see the timeline. To do this place your cursor on the bottom right corner of the project list window, when a little box appears next to the cursor , click and drag.

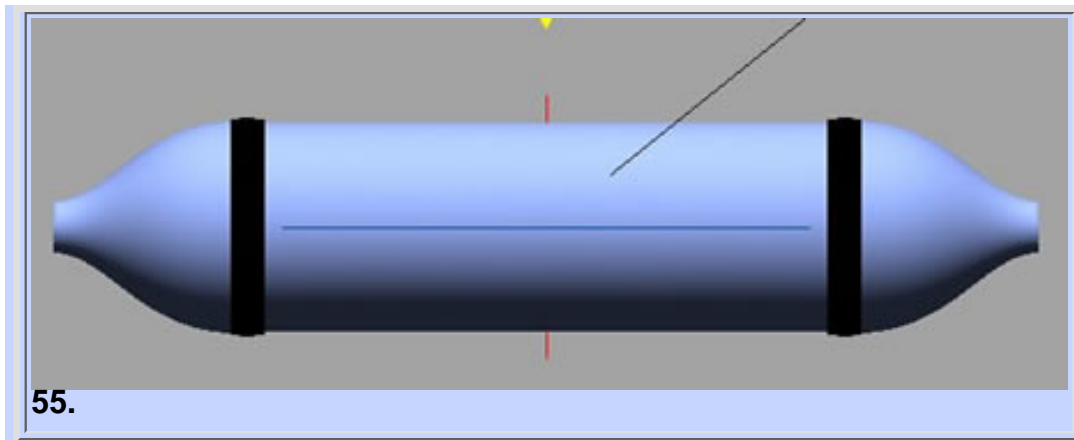
Since we'll only need key frames for the biospheres click on the white arrow next to the biosphere name to hide all the children on the list. **(pic. 63)**

To make the animation loop we'll set the last key frame manually now.

So right click somewhere in the Biosphere's row of the timeline, and select add key frame. **(pic. 64)**



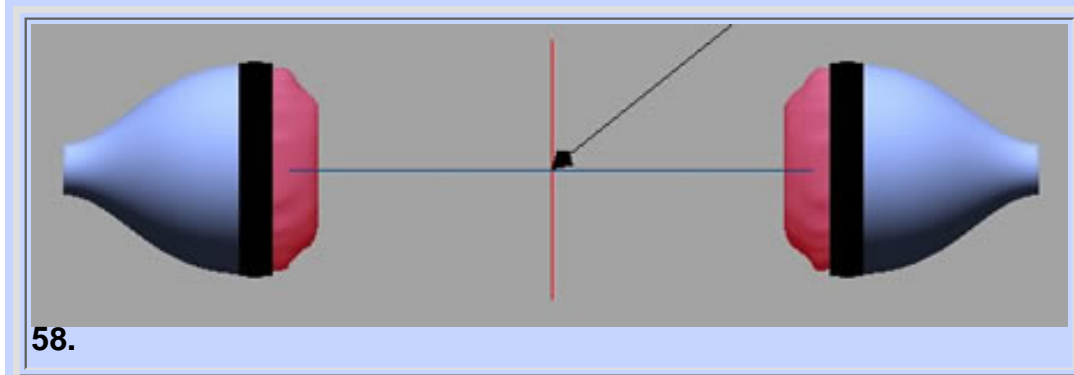
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55.



56.



58.



59.



60.

