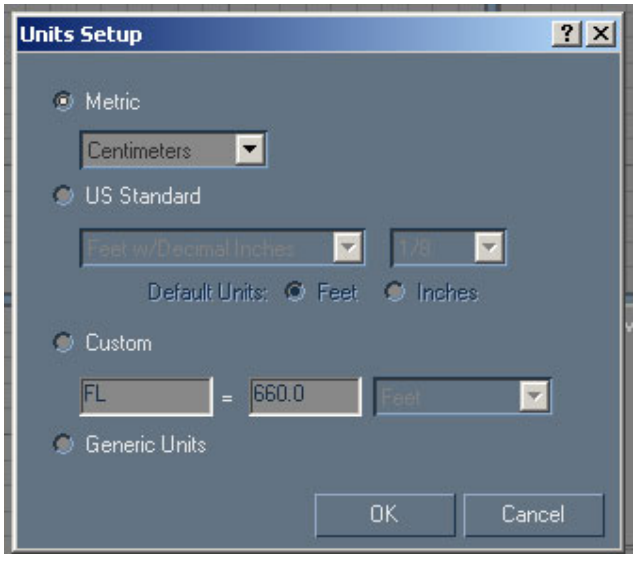
Importing a diagram into Gmax

The aim of this guide is to show you how to add a visible diagram into the Gmax view ports. The guide uses an example diagram that is included in the zip file. The measurements for the loco have also been worked out in advance from the main diagram. The guide only expects the user to have minimal knowledge of Gmax, it is possible that this guide can be used for 3d studio max but difference maybe apparent at various stages of the process.

Setting up Gmax

The first steps of this guide is to setup Gmax. Some of the methods shown may differentiate between content creators.

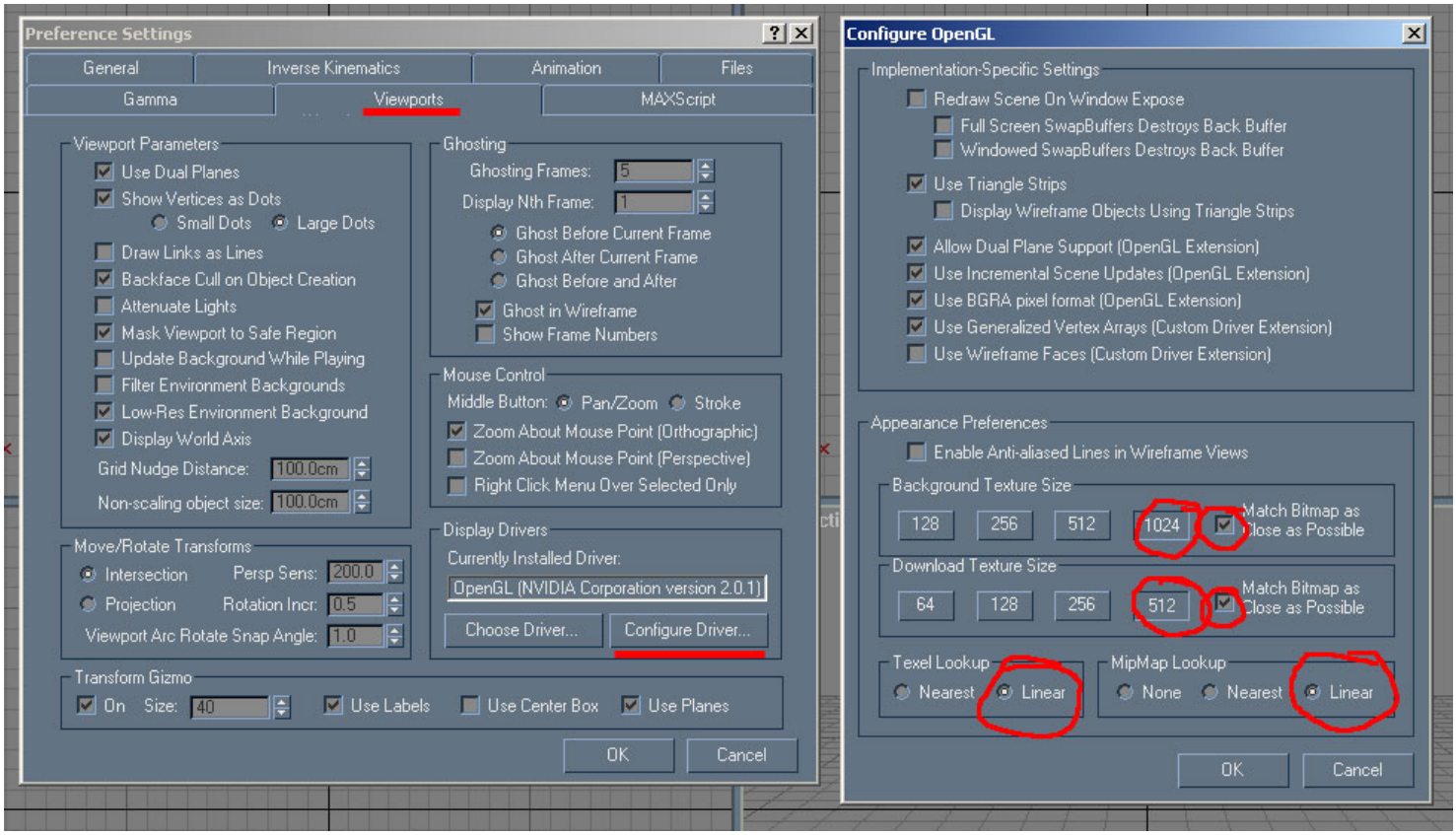
Firstly we need to setup the units correctly in Gmax. To do this click on “customize>units setup” on the menu bar. You should be presented with a new window like the one shown below.



Select the “metric” radio button and choose Centimetres from the drop down list.

Next we need to configure the view port. This is to get the diagram to show up in Gmax as clear as the program will allow.

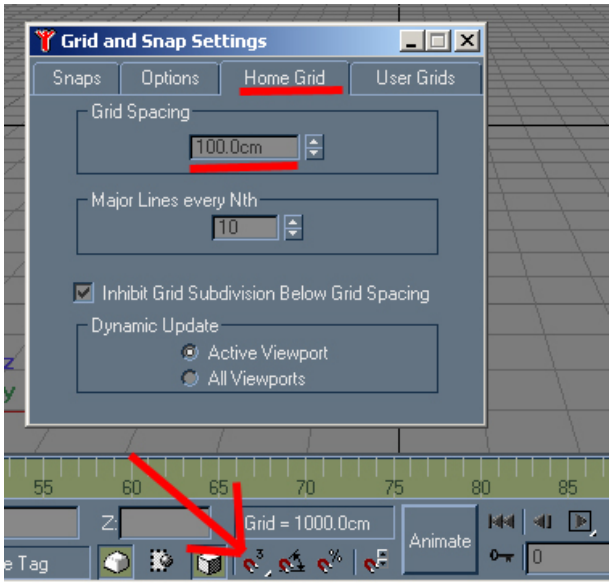
Click “customize>preferences”. A new window will open up and click the “viewport” tab, next click on the “configure driver” button. You should have a screen similar to the picture below.



Some of the options shown may differ depending on the graphics display mode selected when you first loaded Gmax. For the best image clarity for your diagrams set the following:

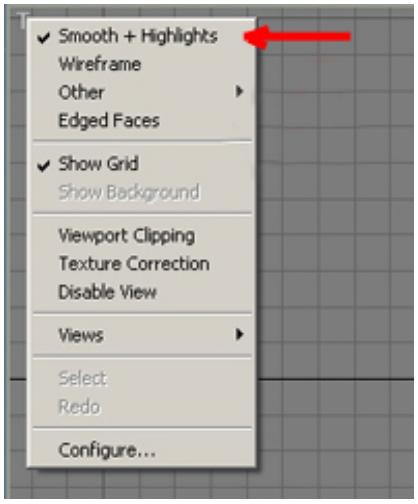
- “Background texture size” to 1024 and check “match bitmap as close as possible” box.
- “Download texture size” to 512 and check “match bitmap as close as possible” box.
- “Texel Lookup” to Linear
- “MipMap Lookup” to Linear

The next stage in the setup process is to setup the grid size. The grid size can be changed the content creation process without any effect on the model. To setup the grid size, right click on the “3d snap” button. This button is pointed out in the screenshot below.



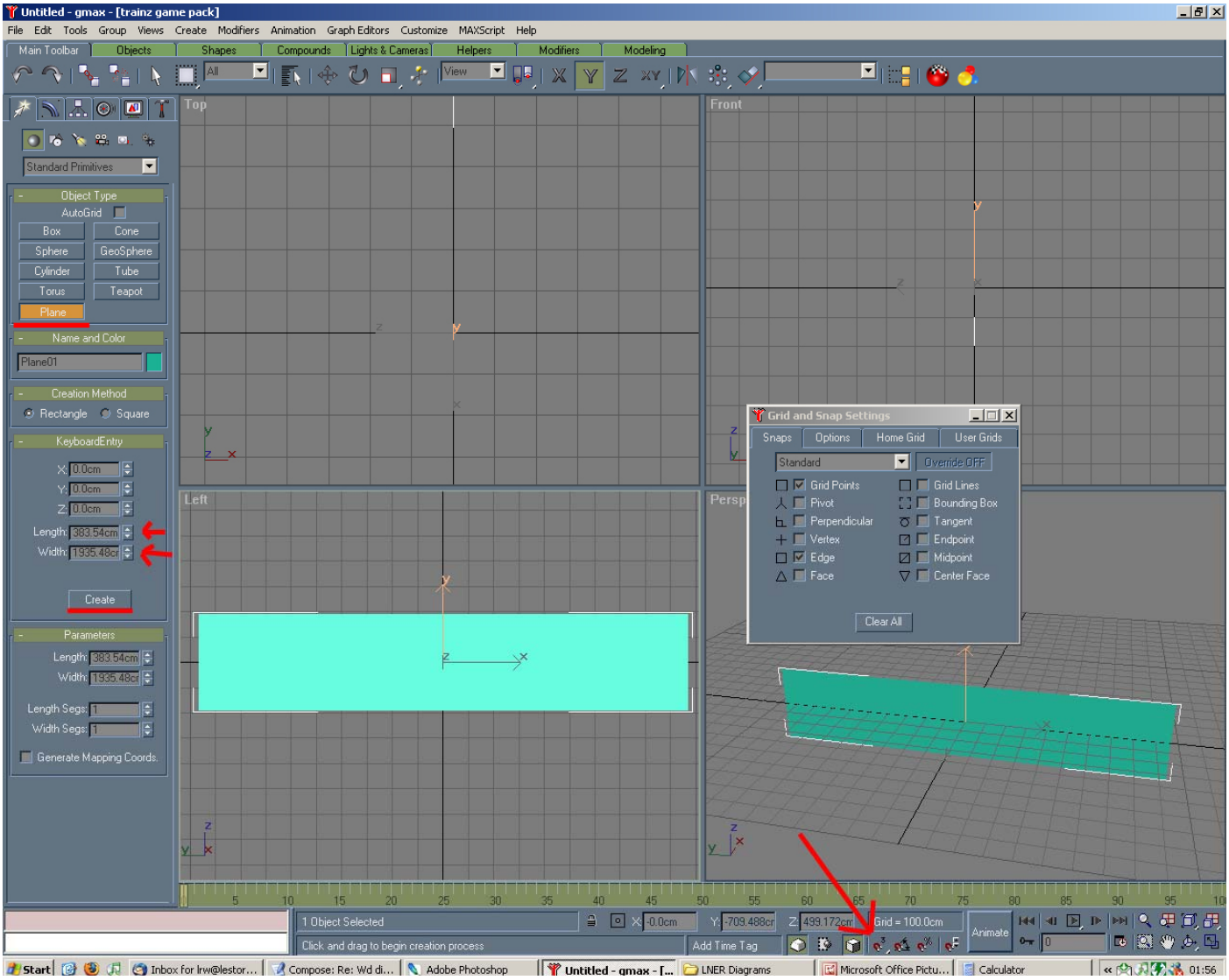
Next click on the “Home grid” tab. In the “grid spacing” box enter in 100cm. This will setup each grid square to be 100cm x 100cm.

The final stage is to change each viewport from the default wireframe mode. To do this right click on each of the viewport names (top, left, front & perspective) and select “Smooth & Highlights”. This will enable the diagram to be visible in the viewports.



Creating the diagram plane

Now that Gmax is setup, we can create the plane that will hold the side view diagram of the loco.

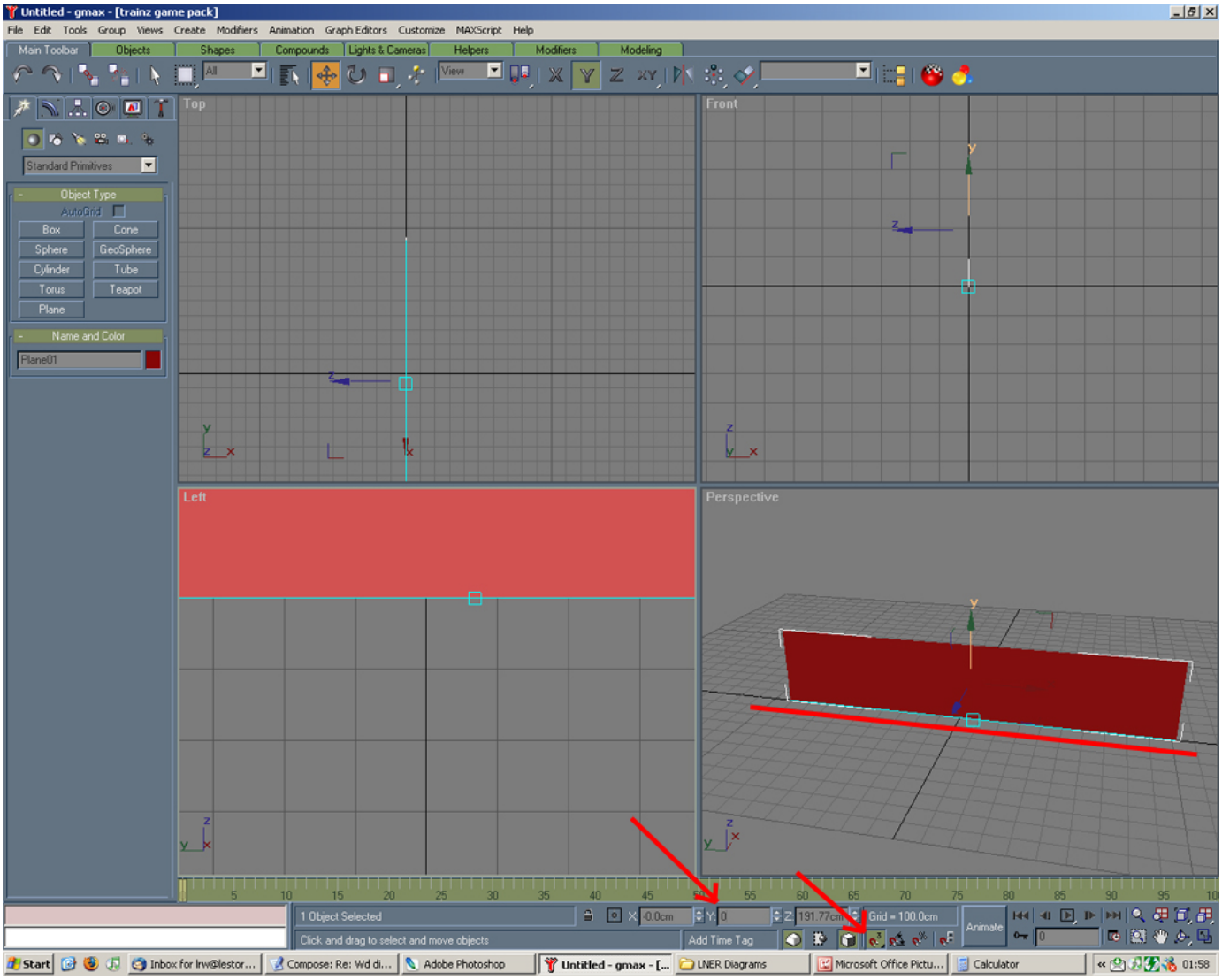


Select the plane tool from the Geometry tools. Expand out the Keyboard entry and enter in the following:

Length: 383.54cm
Width: 1935.48cm

In the Parameters section set Length and Width segs to 1. Finaly right click in the left viewport to make that the active viewport and press the create button. A new plane should now be created.

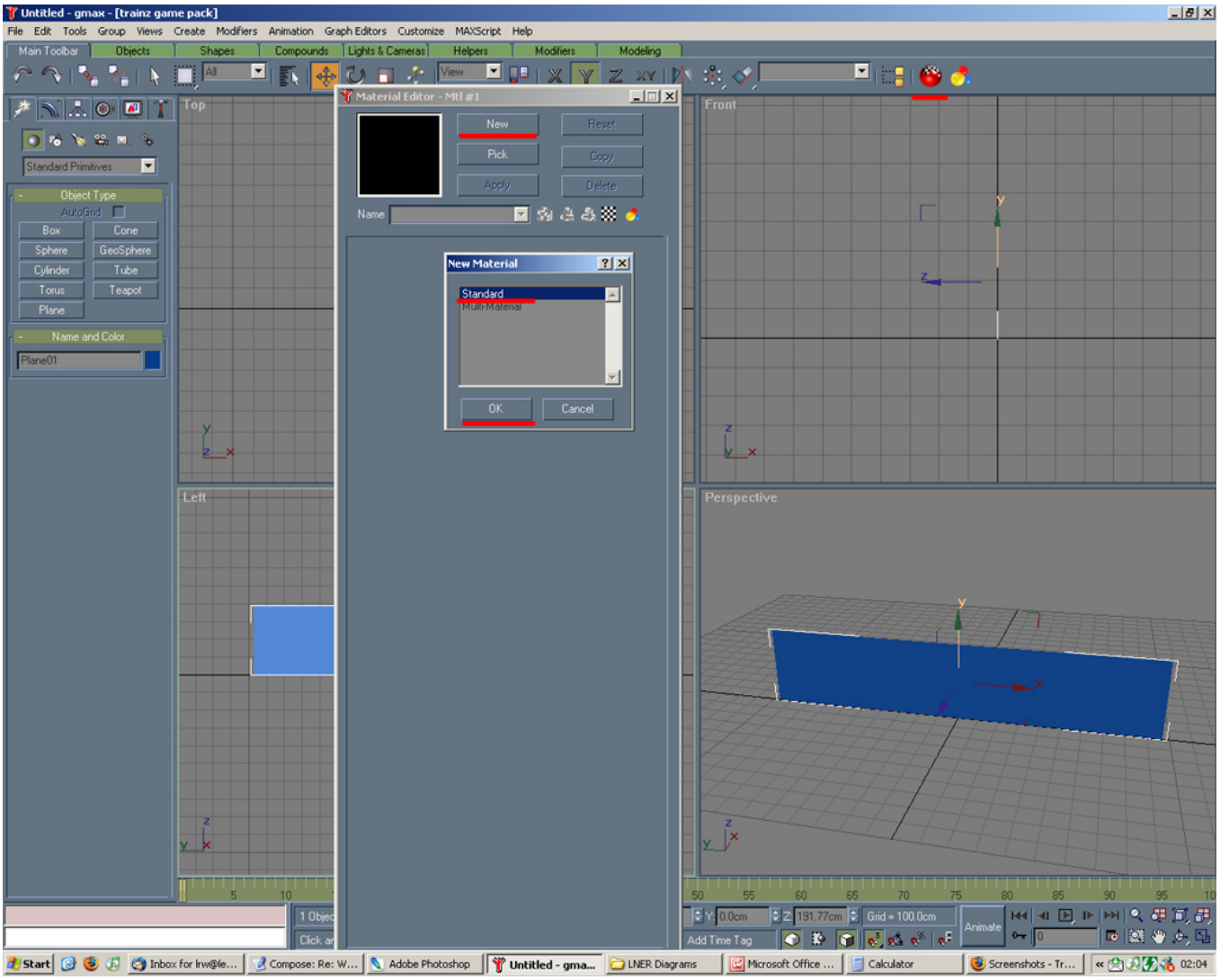
Next we need to align the plane in the correct position in the scene. To do this right click on the 3d snap button and check the grid points and edge boxes and uncheck the vertex box.



Next left click on the 3d snap button to active the tool. In the left view move your curser to the bottom of the plane, and it should have a blue line appear with. Left click and hold on this line and move the plane upwards. It should jump from grid line to grid line. Move it up until it snaps with the darker horizontal grid line. The bottom of the plane is now at ground level. Finally in the moving process the plane may have lost its center positioning on the Y axis. Reset this by entering 0 into the Y box while the plane is selected.

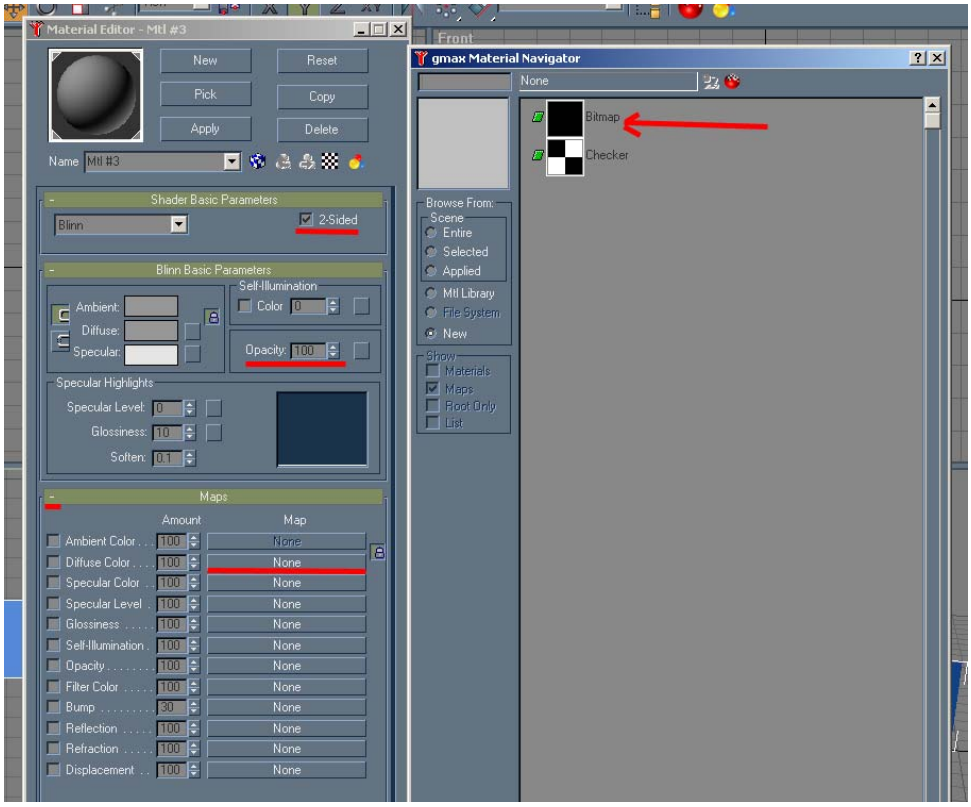
Texturing the plane

With the plane created and positioned in the correctly, we can texture the plane with the diagram. With the plane selected click on the Gmax material editor button to open the Material editor.

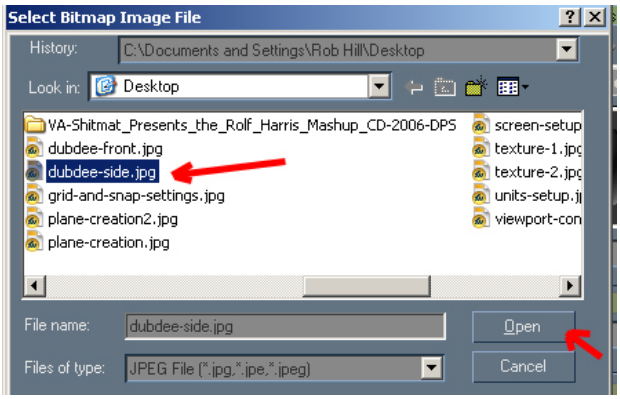


With the material editor open, click on the new button. Select Standard then click on ok. This will then create a new standard material.

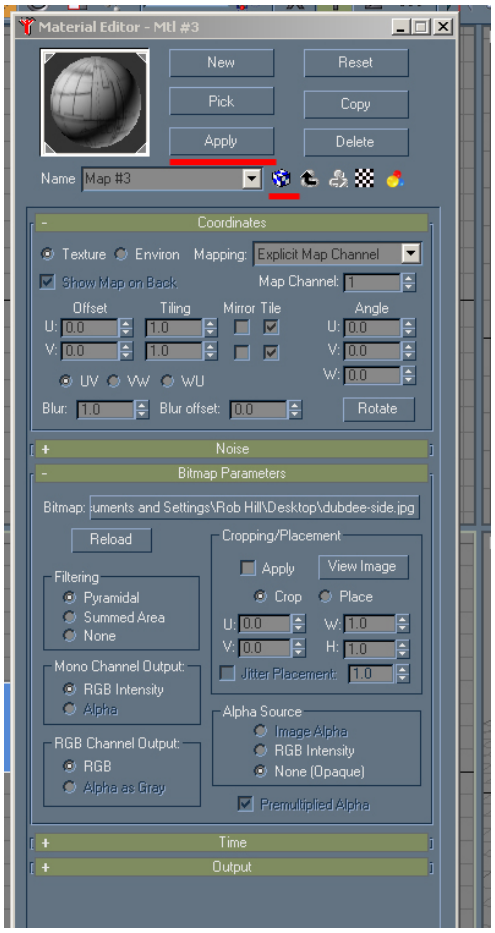
Next you need to set the texture to be double sided. This will allow the diagram to be seen from both sides of the plane. If you have separate diagrams for each side then this is not needed. Next you will need to set the opacity. This isn't needed but it can be useful to have the diagram semi transparent when working on a model. A value of around 30 – 40 achieves a good degree of transparency.



Next we need to load the diagram into the material editor. Expand out the maps section find the diffuse section and left click on none. In the new window that has opened up double click on the bitmap button. This will open up a file open window, in this window find and select the side view diagram. The diagram for this tutorial is "dubdee-side.jpg" With the diagram selected click on the open button

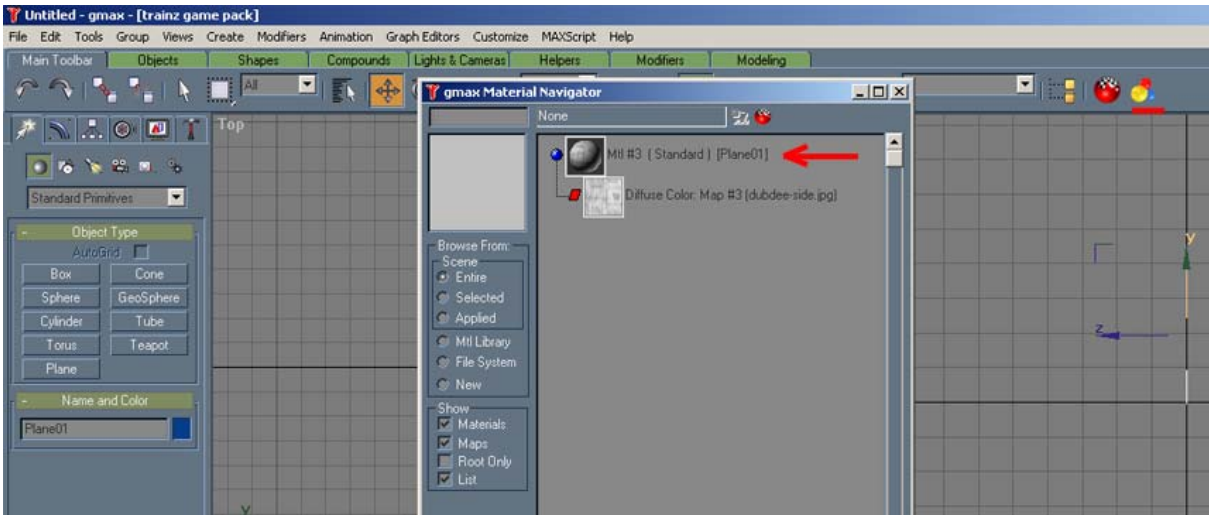


Once the file is opened a new window will be opened. This window is used to control how a particular image file is displayed on a model.



On this window no settings need to be changed. All that is need is to left click on the blue and white box and then select apply. This will close the current window and return to the new material window. From here make sure the plane is selected and hit apply. This will now add the texture to the plane. You can then use the close button to exit the material editor.

If you wish at some point to re-open the material to make some adjustments left click on the material Gmax Material navigator button and then double click on the material. This will re open the material editor.



Dimensions for the included Diagrams

Dubdee-side.jpg

Length = 383.54cm
Width = 1935.48cm

Dubdee-front.jpg

Length = 383.54cm
Width = 261.62cm

This guide is written by Rob Hill of Lesto Route Works and UK branchlines.