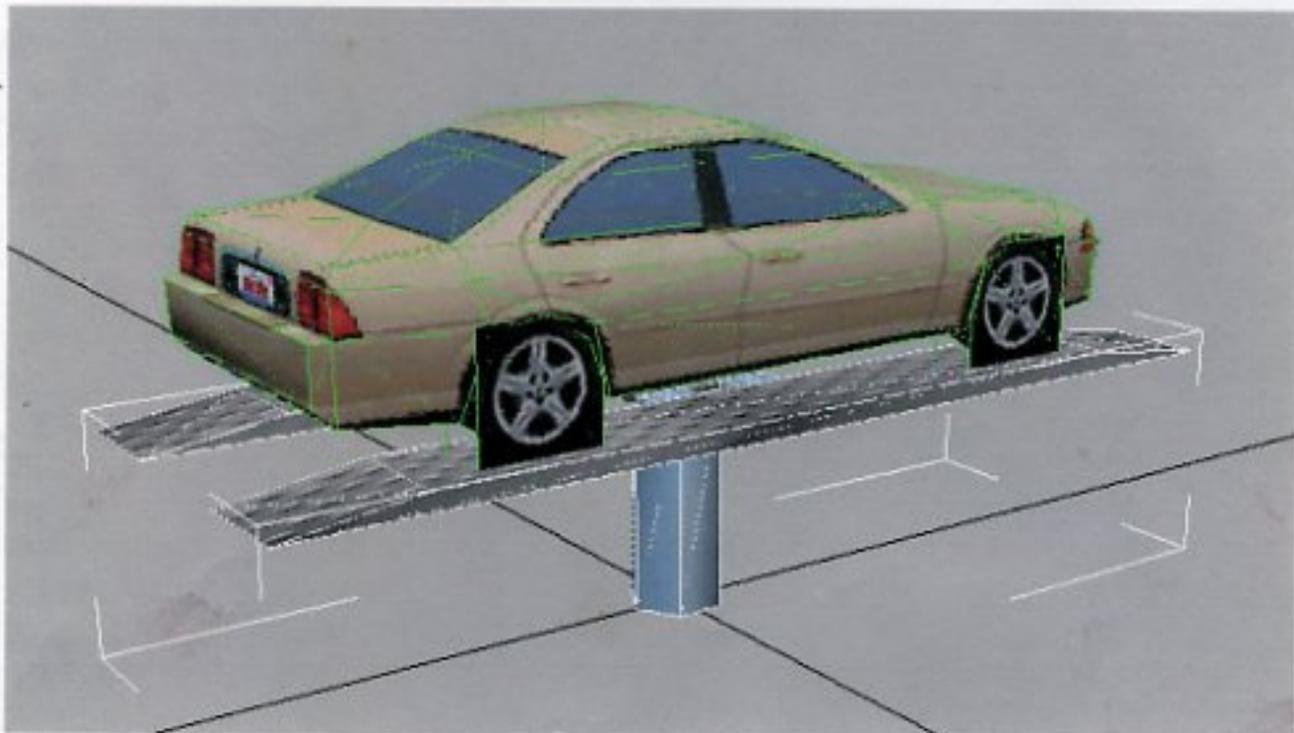


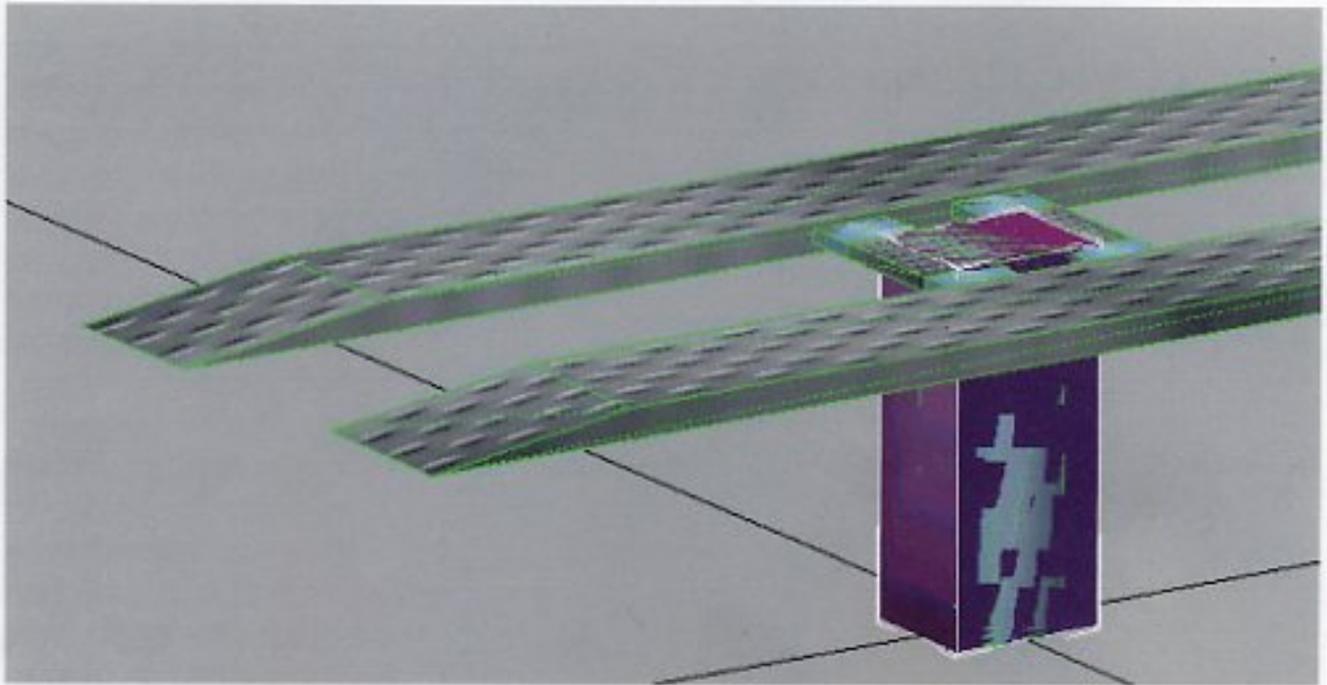


## Props Explained (Tutorial Explaining All Aspects of MM1 prop Creation and Placement)

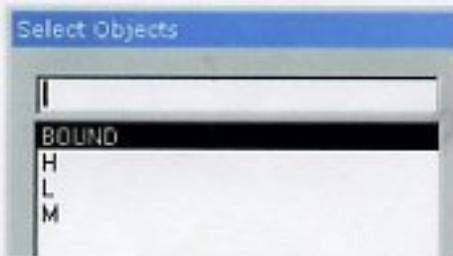
By: Barracuda (Mark Raykhenberg)



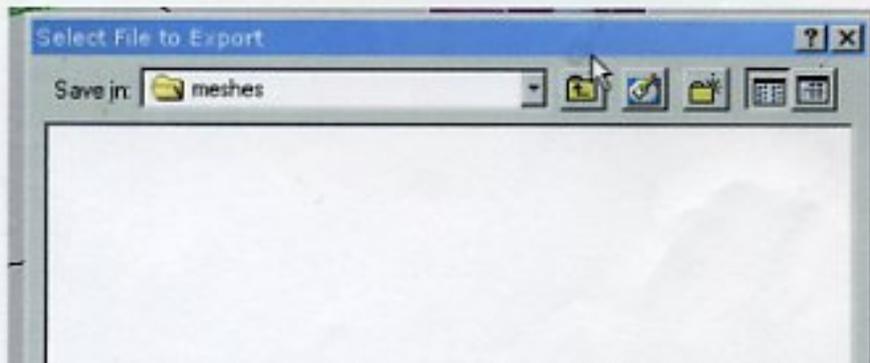
1) To start off a prop you need something to be turned to a prop, here I am making a hydraulic lift to be placed inside garages near the drag strip. This prop will be a good example of how things work because it both requires specific bounding and when placing it direction where it faces is very important. (BTW text accompanies the image above)



2) I have my prop modeled out as you see, now I need bounding for it, I decided to only make bounding for the base, it will function better and most cars wont reach up there. I create a simple box and title it "**BOUND.**"

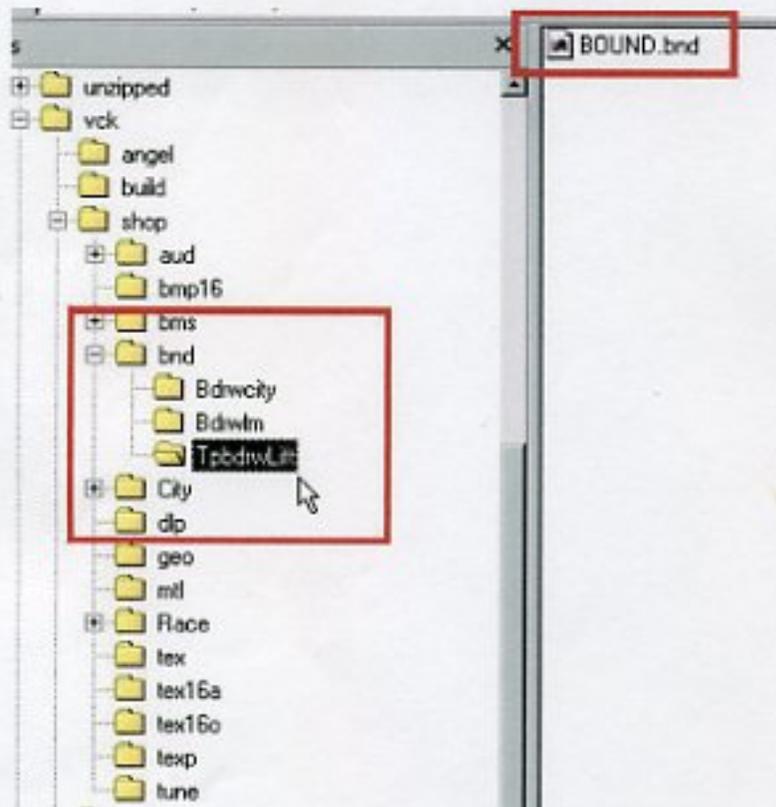


3) As you can see I have all the components ready, the H LOD and 2 copies of it named L and M, I left out the VL group because I do not need this prop to be seen from far away due to its surroundings, but if you ever need a VL group, go for it. Also I have here the BOUND group which will serve as the bounding box which defines where a prop could be hit.

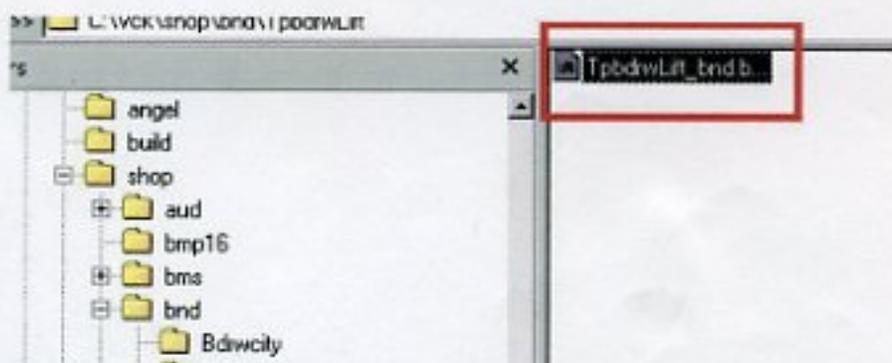


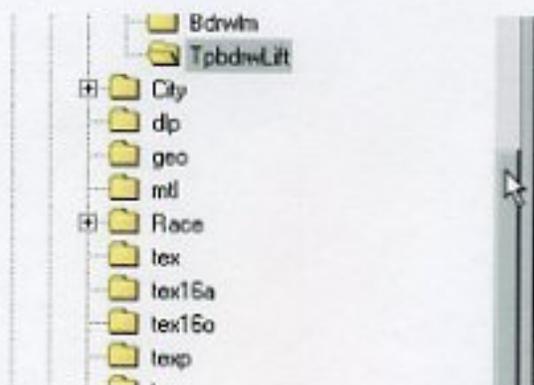


4) Next I export the prop. You must name your prop Tp and then that followed by the name, what ever you like. I must also point out that its important the prop be named Tp and not TP or tp, I remember when I first discovered props the TP combination was not recognized by VCK and I nearly gave up till I tried the upper case and lowercase combination.

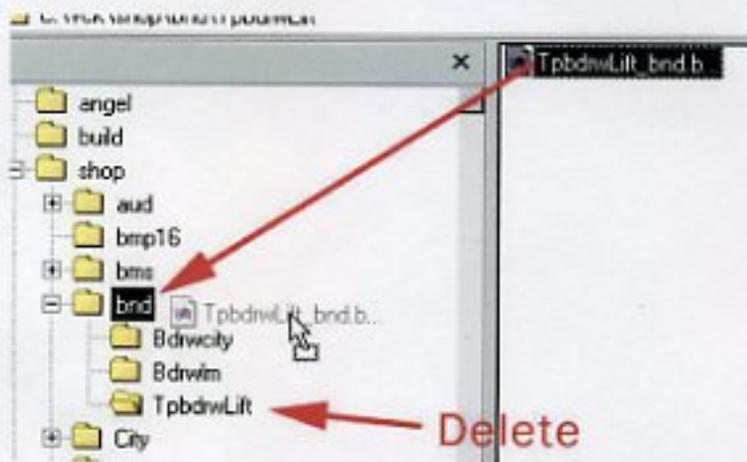


5) Next thing to do is to name your bounding file correctly, it will appear in the bnd folder, in its own folder, you need to make a few changes to make it work properly.

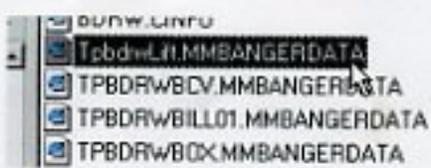




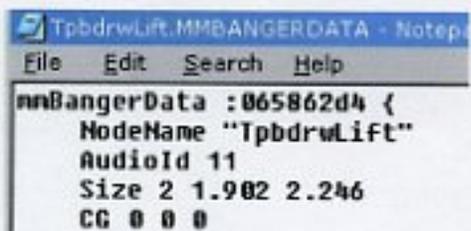
6) First you need to rename it, it must be named Tpyourpropname\_bnd.bnd that's the combination that works. As you can see above that's what I did.



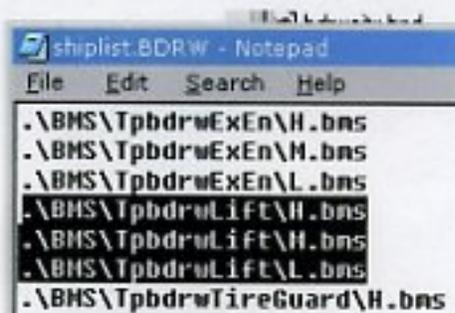
7) Next you need to move the file to the bnd folder and delete the folder it created when it was exported in this case it was called TpbdwLift.



8) Now you need to create a tuning file for your prop. What I do is take a tuning file for a similar prop and copy it then rename the first part of it to fit the name of my prop. Here I took a file from a tree I previously used, this tuning file will secure the prop in place and it will not be knock overable.



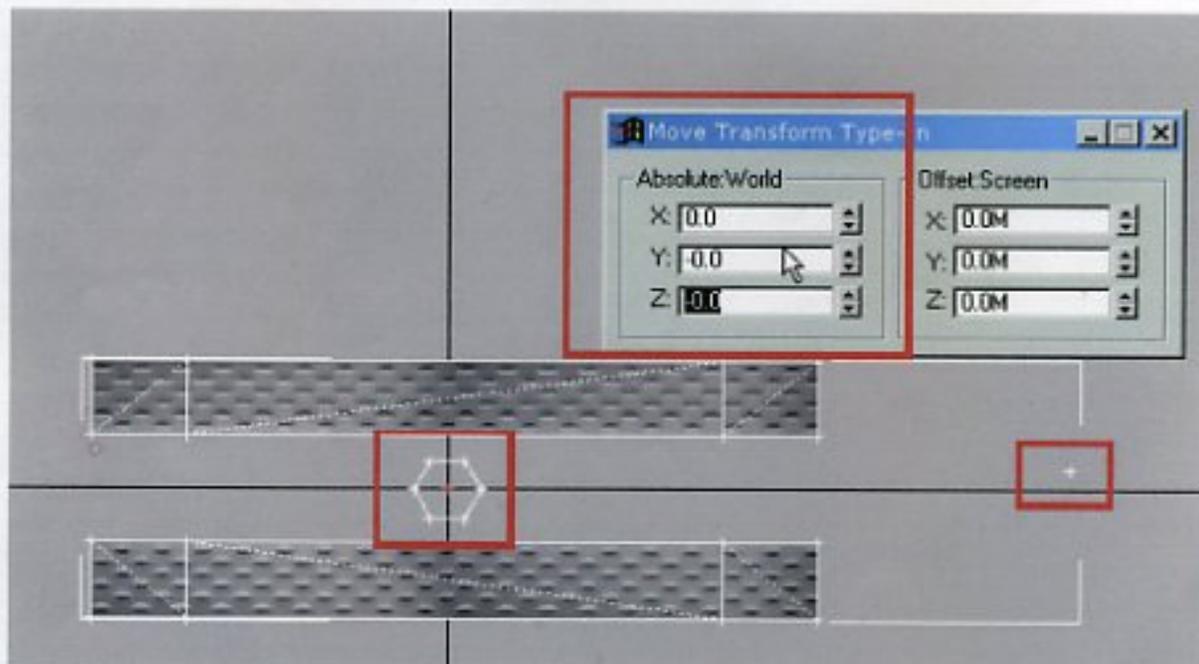
9) Another thing you need to do is change the NodeName inside the tuning file, it must also match the name of your prop.



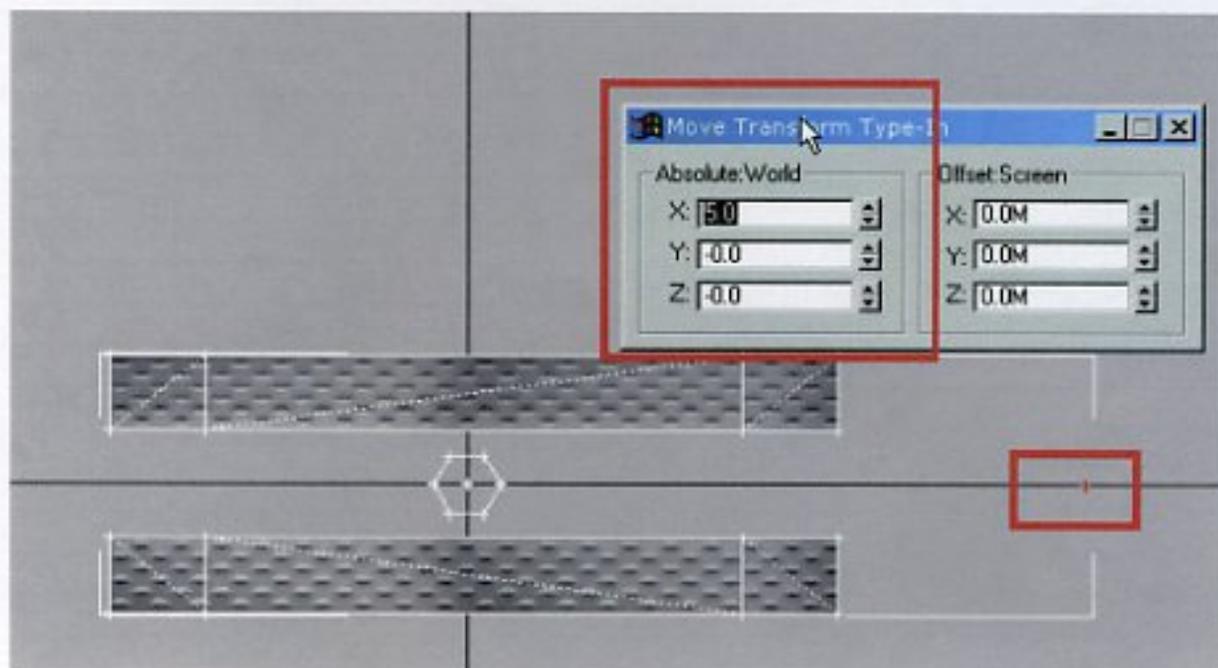
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shiplist.BDRW - Notepad
File Edit Search Help
.\BMS\TpbdwExEn\H.bns
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.\BMS\TpbdwLift\H.bns
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.\BMS\TpbdwFireGuard\H.bns
  
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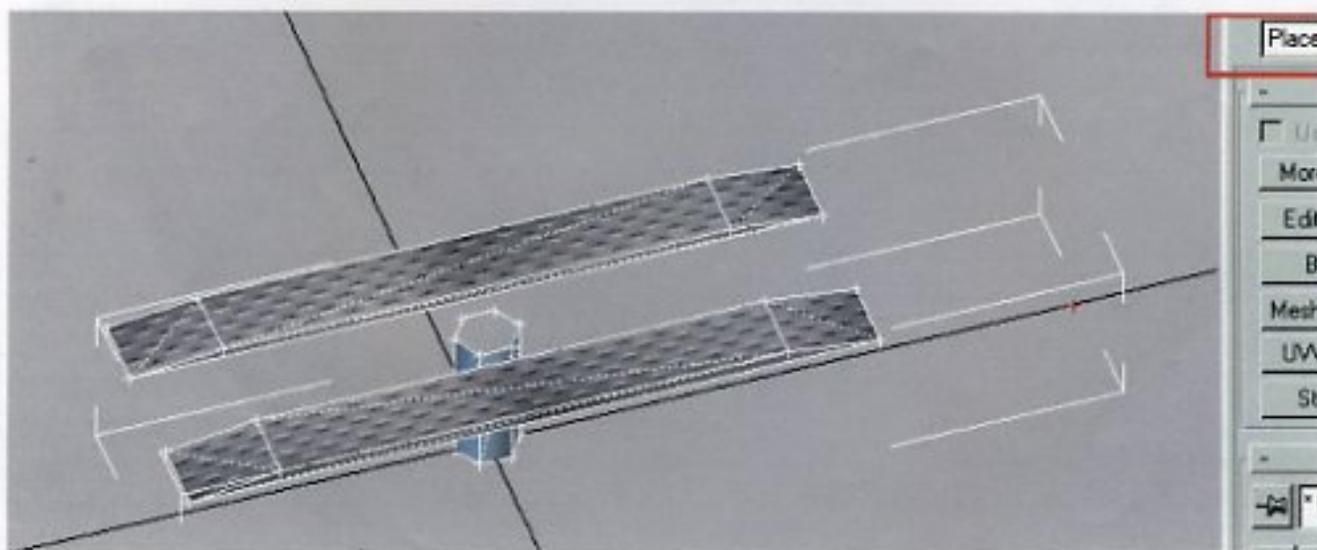
10) After you organized/created all the needed files you need to add them all to the shiplist manually. As you can see I added the bms files others are there also but they are not shown.



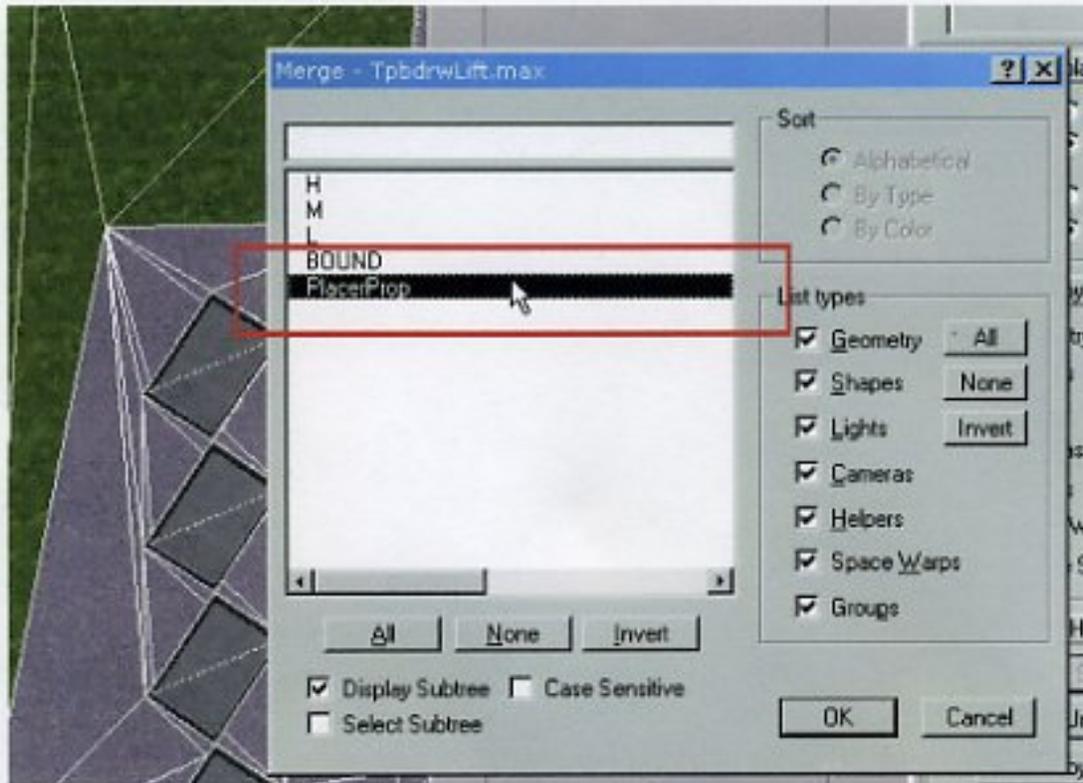
11) Now we must prepare the prop so that it can be placed on the track. Here I reduced the poly count a bit so that it doesn't lag me much but it still retains its shape this is done to have a guide when we get down to placing it in Max to get the coordinates the game will use. Here is a top view of the Hydraulic lift we need to place two vertices on it so that we can get it placed exactly as we need it. The first one goes directly in the center 0, 0, 0 create a vertices and click on it then right click the "move" symbol and set all the coordinates to 0 as you can see in the picture above.



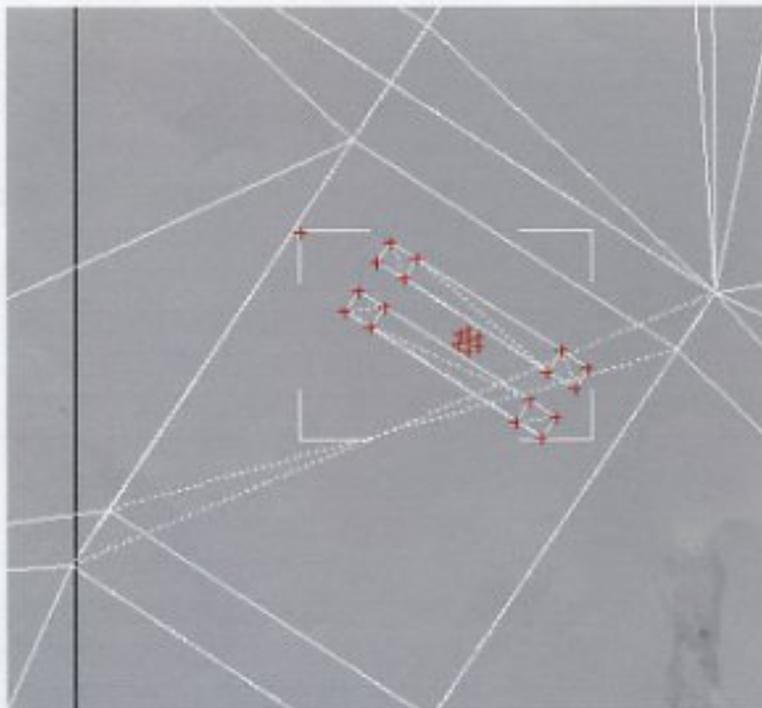
12) Next is to make a guide point, one from which we will get the "point to" coordinates. It should be at 0 on the y and z grid but it should be a positive number for the x grid. You can see this in the picture above.



13) Here you see how my "PlacerProp" looks. You will see the point of all of these in the next step.

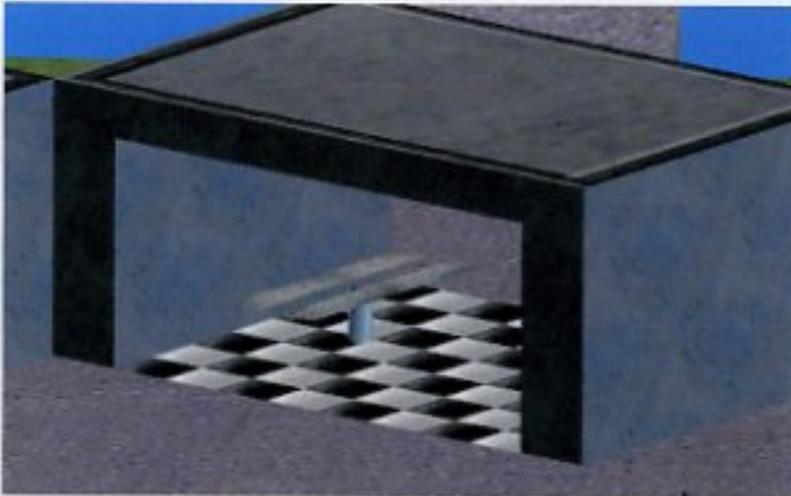


14) Now you open your track and you need to merge your PlacerProp so that you can get the right coordinates for it. You should know how to do this, but in case you don't. Go to File-Merge and then find Max file with your prop's name here mine is called TpbdrwLift.max I double click that and choose the PlacerProp.

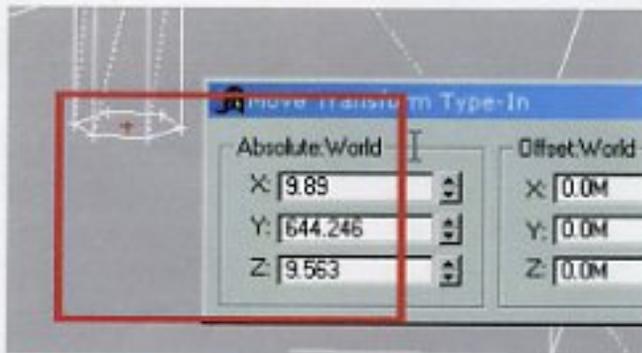




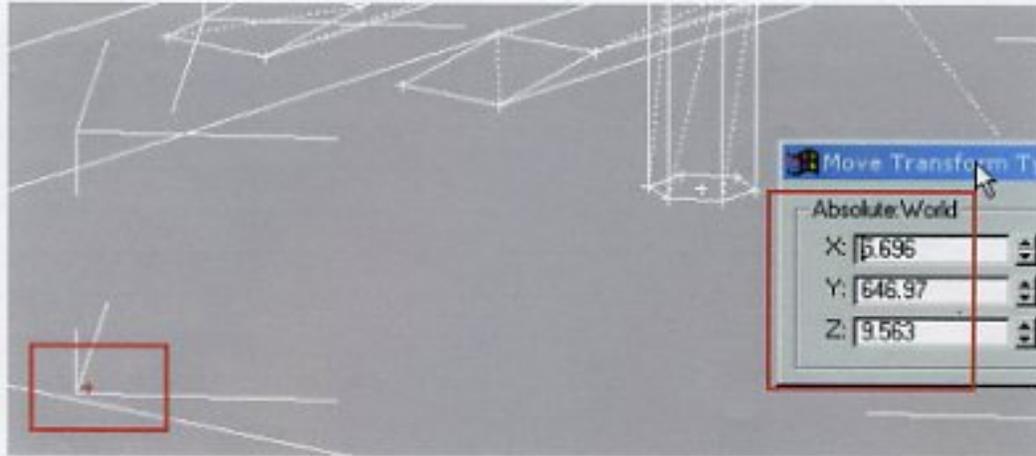
15) Next step is to place the prop on your track as you would like it to look in game, I put mine inside a garage here I am working in the wire frame view because Max runs much faster in this mode and I can see through the roof.



16) After my prop is in place I do a render to make sure it looks correct, which it does.



17) Next order of business is to get the coordinates which will be used in the BNG file. First click the center point that was created, it was the 0,0,0 point before but now its in place. Midtown Madness uses Max coordinates, but in a different order. The X stays as is, so write down the X coordinates as you see them, in this case I get 9.89. Next come the Y coordinates in Max, although here they show up as Y the game uses these as the X coordinates and it also inverts them, so the Y coordinates in this picture should be written down as the Z coordinate e.g. -644.246. The Z coordinate in Max is then the Y coordinate for the game, no changes here, just right it down as you see it. Y= 9.563.



18) The next set of numbers comes from the point which used to be 5,0,0. This point will tell the game where to point the prop to. Once again write down the coordinates as you did in the previous case.

```

File Edit Search Help
169
125.93 11.71 148.714 210.464584 0.248914 -370.195068 TpbdrwTreeA
102.2 10.364 122.413 210.464584 0.248914 -370.195068 TpbdrwTreeA
95.254 8.167 92.656 210.464584 0.248914 -370.195068 TpbdrwTreeA
189.95 11.367 265.27 210.464584 0.248914 -370.195068 TpbdrwTreeB
61 7.828 265 210.464584 0.248914 -370.195068 opstlite
-37 7.828 252 210.464584 0.248914 -370.195068 opstlite
61 7.828 255 210.464584 0.248914 -370.195068 opstlite
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61 7.828 245 210.464584 0.248914 -370.195068 opstlite
    
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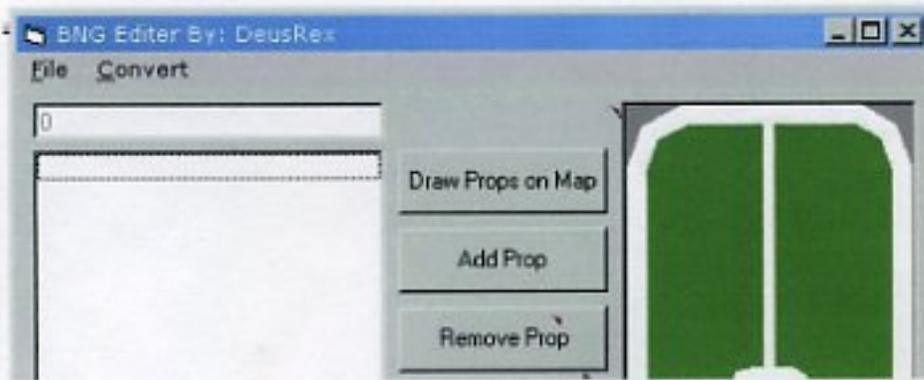
19) Next we need to add those new found coordinates to the BNG. If you have Rex's BNG. editor you need to take your existing BNG. file and convert it to text. I have done this long ago and now I simply add stuff to the text file and convert it to BNG. format. Before I do anything I increase the number of props, I will add one prop this time so I change it to 169.

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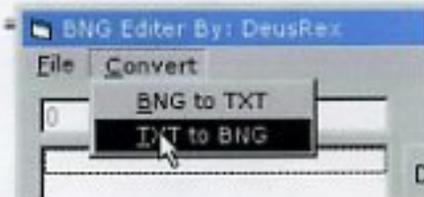
-134.745 3.747 -421.505 -134.745 3.747 -800 TpbdrwExEn
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-134.745 3.747 -257.616 -134.745 3.747 800 TpbdrwExEn
-134.745 3.747 -122.04 -134.745 3.747 800 TpbdrwExEn
-8.788 6 12.819 0 6 15.19 TpbdrwExEn
9.89 9.563 -644.246 5.696 9.563 -646.97 Tpbdrwlift I
    
```

*coordinates for pointer*

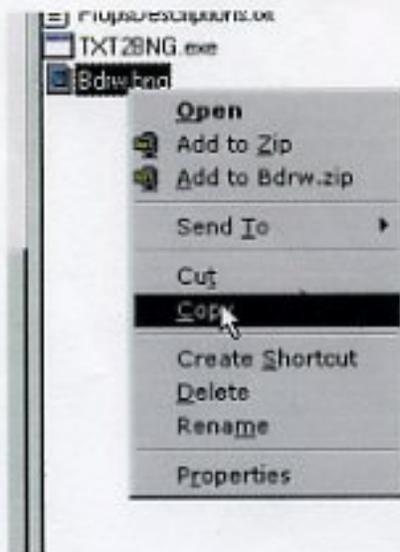
20) Next I put in the number acquired. You can see there are 6 different values and the name of the Prop following those. The first three numbers are the X, Y, Z coordinates of where the prop should be placed, and the other 3 are the X, Y, Z coordinates of where the prop should face. As you can see I have entered those numbers and saved the file.



21) Next I open the BNG. editor by DeusRex.

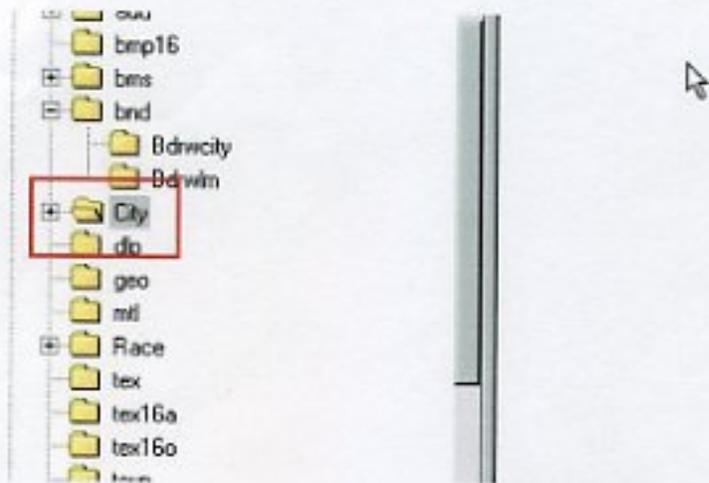


22) After that I go to Convert-Txt to BNG., it asks me what TXT file I want to use in this case I select BDRW.TXT and convert it to BDRW.BNG.



23) After that I select the file and copy it.

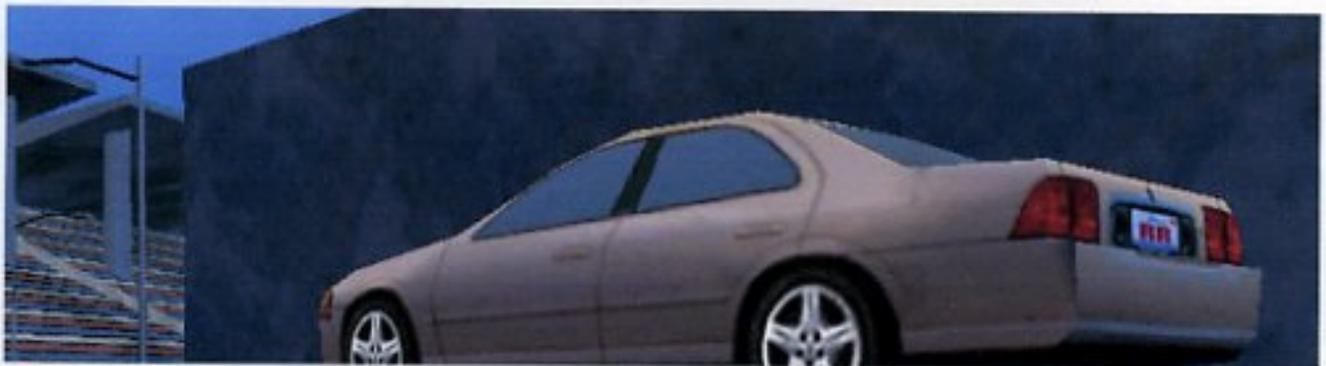


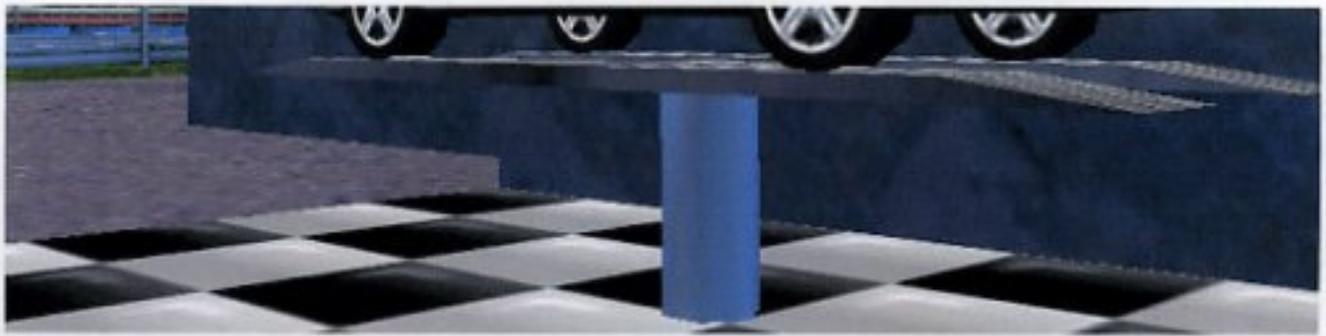


24) Next I paste it in the City folder in VCK and reshipe the file. Make sure not to ship it.



25) The results :) (Note I added the Lincoln LS prop afterwards for show)



**Notes:**

- 1) When you find a tuning file to use for the prop make sure the center of gravity is set to 0,0,0 otherwise your prop will be offset from the points you put in.
- 2) To make a prop immovable copy the Impulse value from a solid prop like a Chicago tree or the China Town gate.
- 3) You can make props easier or harder to knock out of their place by changing the mass and the impulse values.
- 4) Make sure people with different video cards and system configurations can see your props so that you don't have problems like I did in ORM. If people can see some props and not others merge the none working props into the working prop's file and export from there, also use the base tuning from the working props for the newly re-exported none working ones.
- 5) It is important that the prop faces to the right from the top view as my prop does and that the "Point To" vert is there.
- 6) To make a prop that falls on its side set it so that its about half way up and half way down on the up and down scale and then adjust for the difference so that it stands on its base before its hit, I did this with my stack of tires at the BDRW drag strip.
- 7) Breakable props are possible, but when I did this they worked great for me, but crashed maybe other people's games, so I stay away from them. If you really want breakable props you could make two props and always put them together so that when they are hit they will fall in different directions as if broken.
- 8) To get the bounding to work I had to modify the modtypes.ini file located in the VCK - angle folder, below is what my file looks like in the prop section. You should change your modtypes.ini file so that when you export the bounding file

will be created properly. Or you can download my modtypes.ini file.

[Prop]

ReqGeom=ALL

OptGeom=GLOW

GeomPattern=BREAK\*

ReqBound=BOUND

### **Downloads:**

[Download the modtypes.ini file.](#)

Download of Rex's BNG editor is pending.

This might seem highly confusing as you read through it, but as you do it a couple of times you will realize it makes a lot of sense and you wont need to refer to the tutorial anymore. Good Luck.