

Level of Detail

a BML for layout script by *Jason Booth*

Standard disclaimer : No matter what, it ain't my fault - by using this plugin, you agree!

Quick Rant:

Just say NO to IP agreements, suits, correct spelling, politicaly correct behavior, and compromise!

Just say YES to sharing knolege, plugins, ideas; extreme opinions, Phish, and vacationing from reality.

Ok, now that thats over with, onto the plugin. If your like me, and do a lot of game work, your probrobly making multiple versions of your creatures/objects to have multiple levels of detail. Until now, there was no easy way to preview these in lightwave. Well, here's the script you've been waiting for.

To use it, you'll need the BML plugin for layout. BML is available from Bob Hood, at Virtual Visions : their web address is

<http://www.dimensional.com/~vvisions>

At the time of this writting, only the beta version is out - so only registered beta testers will be able to use this script until the full release. Now, on to the main dish..

Using LOD.bml

LOD.bml is implemented as a BML-OR.p script, or BML object replacement plugin (for long...). To use it, load an object, and select "Object Replacement Plugin" from the objects panel. Select BML-OR from there, and select the LOD.bml script. Press the options button to bring up the interface.

You are now presented with two choices, loading, or editing your LOD setting. Click "edit/save settings". A requestor will appear, asking for the number of LOD's, and what file you would like to save the settings as. Enter "6" for the first, and "spacefighter.lod" for the second. In the next requestor, you enter the object file names to be used, and at what distance from the camera to swap to each level. I've included the space fighter object, done in 6 levels of detail, for testing. Each LOD is saved as a number, the higher the number, the lower the number of polygons. The requestor should now look like this:



NOTE: The first level is your original object - You'll have to enter this manually, as currently the layout API does not allow me to get this information until the plugin is rendering. Also, the distance should be set at 0 for this object. You may enter either complete paths, or relative paths (from the content directory) into the requestors.

Once you have entered your information and pressed ok, a file, under the file name you specified earlier will be saved to disk. This file is necessary, as it is accessed during the rendering phase - so don't erase it. You can also select this file with the "load settings" function so you don't have to enter this data in every time you use the object. The settings are also stored in the scene file, in case you move or erase your .lod files by mistake - if this happens, a new one will be created upon loading of the scene.

Now, go into layout, and keyframe the camera so it moves away from your object, above your first threshold level. To see anything happen, you'll have to either create a preview in wireframe or OpenGL mode, or render a frame. That's all there is to it!

Bugs/Strangeness

1) The last rendered/previewed object will be left in the interface screen when you are done rendering or previewing. There is nothing I can do about this, as there is no way to replace the object when rendering ends.. A workaround is to create a preview for a frame that's at the level of detail you'd like to use while positioning objects. Hopefully, layouts 6.0 API will fix these shortcomings...

2) If the object is not found, it gets removed from the scene file. This can really screw with your hierarchies.. If requested, I'll put in a check button that makes sure everything is there when you are in the options panel.

3) In the current beta release of BML for layout, there is a bug which sometimes causes old sections of the requestors to re-appear. You can ignore this, as the data you entered the first time will be the data used. Bob has, of course, fixed this bug - but we'll have to wait for a new revision..

Future work

Here are a few things I might add, if requested:

1) Better UI - I'd like to have a button which will allow you to dig through your drive to find the file, instead of typing the path. Hopefully, Bob will impliment this in the BML file requestors soon, to make it possible.

2) User checking, to make sure all the files are really their.

If you'd like to see anything else, mail me at : truffela@tiac.net, or contact me through my web page at:
<http://www.tiac.net/users/truffela>

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