

Doomsday Engine - Feature #1646

Stereo 3D enhancements

2013-10-31 17:12 - skyjake

Status:	New	Start date:	2013-10-24
Priority:	Normal	% Done:	0%
Assignee:			
Category:	Enhancement		
Target version:	Rendering II		
Description			
Continuing the work started in #1636 , Doomsday's stereoscopic 3D capabilities could be further enhanced with:			
<ul style="list-style-type: none">• Oculus Rift: Better placement of HUD weapon sprites• 3D HUD weapons models with proper scaling (current ones are much larger than they should be)• Neck model to add small x/y/z translation, based on Rift angles• Row/column/checker interleaved stereo 3D modes• Headless 3D player model in Rift mode, so you see a body when looking down• "Oculus Rift" or (other a more generic "Stereo 3D") resource pack, specially tailored HUD/player models? <i>[would benefit from variable override feature]</i>• Utilize 3D space for UI: user simply looks down to see ammo, health, taskbar (e.g., paint non-weapon hud items on a world space transparent quad)			
Related issues:			
Related to Feature #1654: [VR] Displaying the 2D UI within a 3D view		Closed	2013-10-24
Related to Feature #2383: Stereo rendering convergence setting		New	2019-12-27
Follows Feature #1636: Support for Oculus Rift		Closed	2013-10-23

History

#1 - 2013-10-31 17:13 - skyjake

- Description updated

#2 - 2013-11-02 14:24 - skyjake

- Due date deleted (2013-10-24)

#3 - 2013-11-05 08:07 - skyjake

- Tags changed from *Renderer, Resources, UI, 3DModel* to *Renderer, Resources, UI, 3DModel, VR*

#4 - 2013-11-05 08:21 - skyjake

- Description updated

#5 - 2013-11-05 14:15 - cmbruns

One artistic challenge in the "resource pack" category might be 3D weapon models. The Team Fortress 2 developers chose to reconstruct their weapon models, so the player can see not just weapon + hands, but arms elbows, rest of body.

Who created the 3D models used by doomsday engine? Are the software tools for the 3D model workflow still widely available?

Some useful references:

http://media.steampowered.com/apps/valve/2013/Team_Fortress_in_VR_GDC.pdf

http://wiki.teamfortress.com/wiki/Oculus_Rift_User_Guide

#6 - 2013-11-09 01:29 - eunbolt

I have just started making a doomguy model (will have displacement, ambient occlusion, normals, and specular maps) so it can be used for this purpose.

Still waiting on a new model format in doomsday before it can be used.

#7 - 2013-11-09 01:40 - danij

eunbolt wrote:

Still waiting on a new model format in doomsday before it can be used.

Bear in mind that there is much more work involved before a model for the player can be used for this. A newer model format, while useful, is not really a consideration for implementing this feature. First we need separate player and camera entities, then we need to completely redesign the way model animation is driven from mobj states, then... all of which must be done before we can even think about implementing view player models.

In summary, I would advise you work on something else if you are hoping to see it in-game any time soon.

#8 - 2013-12-23 12:26 - skyjake

- *Description updated*

#9 - 2013-12-23 12:27 - skyjake

- *Description updated*

#10 - 2019-11-29 19:22 - skyjake

- *Target version set to Rendering II*

#11 - 2019-12-27 14:42 - skyjake

- *Related to Feature #2383: Stereo rendering convergence setting added*