

Doomsday Engine - Feature #8

Feature # 7 (Progressed): Next-gen renderer (codename "Gloom")

New GL2 based model renderer

2013-10-11 09:53 - skyjake

Status:	Closed	Start date:	2013-10-11
Priority:	Normal	% Done:	100%
Assignee:	skyjake		
Category:	Redesign		
Target version:	1.15		
Description			
The 3D model renderer is a relatively isolated component in Doomsday. It should be possible to add a new GL2 based model renderer that can be developed further while letting the old model renderer handle existing model resources.			
The new model renderer can work entirely with Doomsday 2 components as it doesn't have to worry about backwards compatibility.			
Related issues:			
Related to Feature #2105: Manually created reflection cube maps for models		Closed	2015-07-29
Related to Feature #1623: Shaders		Progressed	2013-03-01
Related to Feature #2190: Include 3D model animation state in saves		Closed	2016-12-22
Related to Feature #2224: Preload all model textures to avoid stutters during...		Closed	2017-03-31
Related to Feature #1539: Armor, powerups (object status) controls 3D model r...		Progressed	2011-06-18
Related to Feature #2449: FBX LOD		New	2021-02-17
Precedes Feature #1246: Support newer model formats and skeletal animation		Closed	2013-10-12
Precedes Feature #1890: New sequence-based model animation mechanism		Closed	2013-10-12
Precedes Feature #1994: Model asset for player weapons (model.weapon.*)		Closed	2015-06-20
Precedes Feature #1995: Improved 3D model shaders		Closed	2013-10-12

History

#1 - 2013-10-11 09:54 - skyjake

- Description updated

#2 - 2013-10-22 13:09 - skyjake

- Tags set to GL2, Renderer, 3DModel

#3 - 2013-10-22 13:09 - skyjake

- Category set to Redesign

#4 - 2014-04-22 15:01 - skyjake

- Status changed from New to In Progress

- % Done changed from 0 to 10

#5 - 2014-07-17 11:05 - skyjake

- Target version set to 1.15

- % Done changed from 10 to 20

#6 - 2014-07-17 16:06 - skyjake

- Subject changed from Draw 3D models using GL2 to New GL2 based model renderer

- Description updated

#7 - 2014-08-23 22:28 - skyjake

- % Done changed from 20 to 50

#8 - 2014-08-23 22:30 - skyjake

The current progress has been merged to the master. The features available at the moment are:

- Defining a model that will be used to represent a mobj (thing).
- Loading a model using file formats supported by libassimp (one set of texture coordinates supported so far).
- Rendering with a GL shader: diffuse, normal, specular, and emission maps.
- Up to four lights affecting the model plus ambient light.
- Starting animation sequences when the mobj enters a particular state.

#9 - 2014-10-27 17:05 - skyjake

- Precedes Feature #1890: New sequence-based model animation mechanism added

#10 - 2014-10-27 17:05 - skyjake

- Status changed from In Progress to Closed

- % Done changed from 50 to 100

#11 - 2014-10-27 17:06 - skyjake

Added issue [#1890](#) as a continuation of this work. The renderer itself is fully functional at the moment, the next step is to implement the animation logic and triggers.

#12 - 2015-03-13 09:05 - skyjake

- Related to Feature #1994: Model asset for player weapons (model.weapon.*) added

#13 - 2015-03-13 09:06 - skyjake

- Related to deleted (Feature #1994: Model asset for player weapons (model.weapon.*))

#14 - 2015-03-13 09:06 - skyjake

- Precedes Feature #1994: Model asset for player weapons (model.weapon.*) added

#15 - 2015-03-13 09:10 - skyjake

- Precedes Feature #1995: Improved 3D model shaders added

#16 - 2015-07-29 14:32 - skyjake

- Related to Feature #2105: Manually created reflection cube maps for models added

#17 - 2015-11-24 19:31 - skyjake

- Related to Feature #1623: Shaders added

#18 - 2016-12-22 08:40 - skyjake

- Related to Feature #2190: Include 3D model animation state in saves added

#19 - 2017-04-08 13:25 - skyjake

- Related to Feature #2224: Preload all model textures to avoid stutters during gameplay added

#20 - 2019-11-29 19:04 - skyjake

- Related to Feature #1539: Armor, powerups (object status) controls 3D model representation added

#21 - 2021-02-17 20:54 - skyjake

- Related to Feature #2449: FBX LOD added