# Doomsday Engine - Feature #2197

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

# Remove the 'Bias' volumetric lighting system and the Bias light source editor ("bledit")

2017-02-06 14:11 - skyjake

Status:	Closed	Start date:	2017-02-06
Priority:	Normal	% Done:	100%
Assignee:	skyjake		
Category:	Cleanup		
Target version:	2.0 - Home UI & Packages		

## **Description**

The old experimental bias lighting system has two components:

- Direct light from point light sources. Tracks configured light sources and determines whether individual vertices are lit by them. Does simple raycasting to determine occlusions (shadows).
- A volumetric grid is used for distributing soft ambient light from lit sectors to the immediate surroundings.

The problem with these is that the implementation is entirely CPU-based and operates only on vertices. This is incompatible with the future direction of maximum GPU utilization and per-pixel lighting. Therefore the old experimental implementation should be removed, and a better GPU-based lighting system should be implemented for Doomsday 2.

#### Related issues:

Related to Bug #244: Bias Grid Lock Up	Closed	2005-07-11
Related to Feature #1158: Soft Sector Lighting	Closed	2003-05-22
Related to Feature #1341: Soft edges for sector lighting	Rejected	2004-04-12
Related to Feature #2035: Map lighting editor (volume, surface, and point sou	New	2015-05-05

#### **Associated revisions**

## Revision b778a8e9 - 2017-02-06 19:35 - skyjake

Cleanup|Renderer|World: Disable the bias light grid, bias light sources, and "bledit"

IssueID #2197

#### Revision b6960004 - 2017-02-06 20:26 - skyjake

Cleanup|Client|World: Disabled more code related to "bledit"

IssueID #2197

## Revision 4a40a38f - 2017-02-06 21:04 - skyjake

Cleanup|Renderer|World: Removed obsolete source files

IssueID #2197

## Revision 81e54237 - 2017-02-06 21:08 - skyjake

Cleanup|Documentation: Removed obsolete console commands and variables

IssueID #2197

### History

## #1 - 2017-02-06 14:12 - skyjake

- Description updated

## #2 - 2017-02-06 14:13 - skyjake

- Related to Bug #244: Bias Grid Lock Up added

#### #3 - 2017-02-06 14:14 - skyjake

- Related to Feature #1158: Soft Sector Lighting added

2024-04-09 1/2

# #4 - 2017-02-06 14:14 - skyjake

- Related to Feature #1341: Soft edges for sector lighting added

## #5 - 2017-02-06 14:14 - skyjake

- Related to Feature #2035: Map lighting editor (volume, surface, and point sources) added

## #6 - 2017-02-06 14:14 - skyjake

- Related to Feature #1639: Optimize GridMap added

# #7 - 2017-02-06 14:15 - skyjake

- Related to deleted (Feature #1639: Optimize GridMap)

# #8 - 2017-02-07 11:06 - skyjake

- % Done changed from 0 to 100

# #9 - 2017-02-07 11:06 - skyjake

- Status changed from In Progress to Closed

## #10 - 2017-02-25 18:06 - skyjake

- Category changed from Redesign to Cleanup

2024-04-09 2/2