

## Doomsday Engine - Feature #1668

Feature # 1648 (Progressed): Complete vanilla DOOM emulation

Feature # 1603 (Progressed): Support for id Tech 1 map hacks

### Support id Tech 1 map hacks with sector lightlevels outside expected [0..255] range

2013-11-25 21:13 - vermil

<b>Status:</b>	New	<b>Start date:</b>	2013-11-25
<b>Priority:</b>	Normal	<b>% Done:</b>	0%
<b>Assignee:</b>			
<b>Category:</b>	Vanilla emulation		
<b>Target version:</b>	3.x		
<b>Description</b>			
<p>The Doom map format allows sectors to have lightlevel values outside the normal 0...255 range. However, out-of-bounds values can be used to produce some special effects:</p> <ul style="list-style-type: none"><li>• Higher than 255 causes animated sector lights to stay fullbright longer</li><li>• Higher than 255 removes/reduces the lighting change due to wall direction</li><li>• Lower than 255 causes animated sector lights to stay black longer</li></ul> <p>An example map is Map31 of this pwad: <a href="http://www.doomworld.com/vb/wads-mods/66113-doom-2-the-way-id-did-released-bugfix-update-nov-16/">http://www.doomworld.com/vb/wads-mods/66113-doom-2-the-way-id-did-released-bugfix-update-nov-16/</a></p> <p>☐☐ When one loads a save game on such a map, sectors with brightness higher than 255 are incorrectly set to 0 once the map has loaded.</p>			
<b>Related issues:</b>			
Related to Feature #1666: [Dehacked] Support for sprite renaming		<b>Closed</b>	<b>2013-11-25</b>

#### Associated revisions

##### Revision 5de0f8f4 - 2013-12-18 05:19 - danij

Fixed|Sector: Ensure sector lightlevels are clamped to the normalized [0..1] range

Note that presently Doomsday does not support id Tech 1 map hacks which depend on sector lightlevels outside of the [0..255] range that vanilla expects.

(Information on what the mod author actually intends with such hacks appears to be almost non-existent on the web -- please do let us know what these are actually used for so that we can look to support them in future).

IssueID #1668

#### History

##### #1 - 2013-11-26 11:53 - skyjake

- Tags set to SaveGame
- Category set to Defect
- Priority changed from Normal to High

##### #2 - 2013-12-18 05:20 - danij

- Category changed from Defect to Vanilla emulation
- Priority changed from High to Normal

##### #3 - 2013-12-18 05:38 - danij

- Tags changed from SaveGame to MapData
- Tracker changed from Bug to Feature
- Subject changed from Savegames incorrectly saving 256+ light levels to Support id Tech 1 map hacks with sector lightlevels outside expected [0..255] range

The original issue which this report concerns (sector lightlevels being set to zero on saving the game) has now been addressed (the result of a missing clamp in the Sector constructor).

Converted to an RFE for the support of map hacks using sectors with non-standard lightlevel values.

**#4 - 2013-12-18 13:12 - danij**

- *Parent task set to #1603*

**#5 - 2013-12-19 21:38 - danij**

Vermil started a thread about this on Doomworld, which has resulted in some useful information from the modding community:  
<http://www.doomworld.com/vb/doom-editing/66650-any-reason-why-one-would-want-a-light-level-above-255/>

**#6 - 2017-04-03 18:41 - skyjake**

- *Target version set to Vanilla / Gameplay*

**#7 - 2019-12-15 07:35 - skyjake**

- *Related to Feature #1666: [Dehacked] Support for sprite renaming added*

**#8 - 2019-12-15 07:35 - skyjake**

- *Description updated*

**#9 - 2019-12-15 07:43 - skyjake**

- *Description updated*

The proposed solution is to not clamp sector lighting values until render time, so that any modifications to the light level can go through unaffected by the clamping.

**#10 - 2019-12-15 07:43 - skyjake**

- *Target version changed from Vanilla / Gameplay to 2.3*

**#11 - 2019-12-15 07:45 - skyjake**

- *Description updated*

**#12 - 2019-12-15 07:46 - skyjake**

- *Description updated*

**#13 - 2020-12-08 08:27 - skyjake**

- *Target version changed from 2.3 to 3.x*