

## Doomsday Engine - Feature #1997

### Menu, weapon, intermission, and finale stretching in Video Settings

2015-03-16 11:36 - skyjake

<b>Status:</b>	Closed	<b>Start date:</b>	2015-03-16
<b>Priority:</b>	Normal	<b>% Done:</b>	100%
<b>Assignee:</b>	skyjake		
<b>Category:</b>	User experience		
<b>Target version:</b>	1.15		
<b>Description</b>			
In a 16:9 display mode, which is not an uncommon aspect ratio nowadays, the default settings for menu and HUD sprite stretching yield horizontally stretched graphics. Ideally, by default the stretching settings should be such that no stretching occurs at this aspect ratio (it's unnecessary and decreases visual quality and accuracy with regard to vanilla emulation).			
<b>Related issues:</b>			
Copied to Feature #2081: Menus and psprite weapons should not be stretched (b...		<b>Closed</b>	<b>2015-03-16</b>

#### Associated revisions

##### Revision 386bc0ed - 2015-03-19 18:17 - skyjake

UI|Client: Configuring aspect ratio options in Video Settings

IssueID #1997

##### Revision 7f8d7eb4 - 2015-03-19 18:18 - skyjake

UI|Client: Configuring aspect ratio options in Video Settings

IssueID #1997

#### History

##### #1 - 2015-03-16 11:38 - skyjake

[danij](#), do you agree that HUD sprite stretching is not really needed at 16:9? What was the reasoning behind the current auto-stretch logic when it comes to the threshold where stretching no longer occurs?

##### #2 - 2015-03-16 11:52 - vermil

Doomsday is the only port to offer hud weapon stretching as far as I am aware; ZDoom users have made 'widescreen' sprite add-ons for that port because ZDoom doesn't offer the feature).

The reason they made the add-on is because some of the hud weapons were made to always be placed at the edges of the screen (i.e Heretic's Staff, HeXen's Gauntlet's etc); Dday's hud weapon stretching means Dday doesn't need such an add-on.

I also debate that the hud weapon is arguably a part of the game world to the user and debate that having one stretched, but not the other, might harm immersion (i.e un-stretched gun and stretched gun projectiles might 'detach users').

I think hud weapon stretching should remain on by default.

An interesting addition to Dday, might be an option for users to force the entire screen into a letterboxed 4:3 aspect ratio?

##### #3 - 2015-03-16 15:15 - danij

The current threshold was chosen deliberately so that 16:9 is stretched by default. I did this because I felt that the minor stretching, in general, looks better overall than framing the window within black borders at this very common aspect ratio. Stretching can however be disabled if one finds it particularly offensive by changing the various \*-stretch cvars (e.g., rend-finale-stretch affects the title screen).

Observe what happens with 1280 x 720 (16:9):  
rend-finale-stretch 0 (smart) => stretched  
rend-finale-stretch 2 (disabled) => black bordered projection

It was a judgement call based on what I felt the average user would prefer and expect as the default behavior at 16:9 We can certainly review this decision, however, my intention was always that one day the GUI would provide controls for this (nowadays that would be in Video Settings).

##### #4 - 2015-03-16 15:22 - skyjake

danij wrote:

stretching, in general, looks better overall than framing the window within black borders

I have nothing against stretching by default when it comes to InFine (and menus), however the HUD weapon is a different case. As Vermil points out, the weapon is essentially part of the game world and stretching it doesn't really serve any purpose at 16:9.

It would be good to have settings for these in the UI. I will add some.

#### #5 - 2015-03-16 15:24 - danij

Vermil has aptly covered why stretching of the player weapon sprites is done by default. Its so that mods expecting the original aspect ratio look as intended by their original author in the most common aspect ratios in use today (16:9 and 16:10), with only minimal stretching.

Again, this was a judgement call based around average user expectation. I felt minor stretching looked better in general than player weapon sprites appearing "cut off". This too can be configured by the user (rend-hud-stretch), separately from the other elements should they wish to have, say, the title screen bordered but the weapon sprites stretched.

#### #6 - 2015-03-16 15:26 - danij

I think the main issue here is that the already existing options are not being presented to the user.

#### #7 - 2015-03-16 15:35 - danij

skyjake wrote:

the weapon is essentially part of the game world

Nowadays, with 3D models, yes I'd agree. However, we are talking about sprites designed for use with the original games' fixed aspect ratio. I personally believe (and Vermil agreed, above) that Doomday doing this by default is beneficial - in general, mods automatically look as intended - at the most common aspect ratios in use today.

#### #8 - 2015-03-16 16:59 - skyjake

danij wrote:

Nowadays, with 3D models, yes I'd agree. However, we are talking about sprites designed for use with the original games' fixed aspect ratio. I personally believe (and Vermil agreed, above) that Doomday doing this by default is beneficial - in general, mods automatically look as intended - at the most common aspect ratios in use today.

I guess this comes down to what the default values are supposed to be targeting. As usual, my thinking is restricted to the original games and not mods, but I can definitely see your argument here. When there is an easy way to configure the stretching this won't be much of an issue, though.

#### #9 - 2015-03-19 18:16 - skyjake

- Tags changed from *Renderer, Configuration to Renderer, Configuration, TaskBar*
- Tracker changed from *Bug to Feature*
- Subject changed from *Default menu/HUD auto-stretching with 16:9 display mode to Menu, weapon, intermission, and finale stretching in Video Settings*
- Status changed from *New to Resolved*
- Assignee changed from *Deng Team to skyjake*
- % Done changed from *0 to 100*

I've now added the various stretching options into Video Settings. Since these are cvars, and thus game-specific, they don't appear unless a game is currently loaded.

#### #10 - 2015-03-19 23:11 - vermil

Can I use this report to query if the long standing issue with Heretic and HeXen's finale text not fitting on the screen in non 4:3 screen ratios has been fixed (currently there is a work around where the text in those games is downscaled by default to 0.9)?

I ask because that work around can cause minor visual blemishes in old Dday mods for these games that scaled finale text based off the original text size.

#### #11 - 2015-03-20 00:03 - sonicdoommario

And I was also wondering if this report had anything to do with the vertical positioning of an HUD weapon being lower and incorrect on non-4:3 ratios.

#### #12 - 2015-03-20 09:23 - skyjake

vermil wrote:

long standing issue with Heretic and HeXen's finale text not fitting on the screen in non 4:3 screen ratios has been fixed (currently there is a work around where the text in those games is downscaled by default to 0.9)

That is a separate issue caused by the font metrics being different from vanilla Heretic/Hexen. I couldn't find this in the tracker already so I created [#2000](#).

sonicdoommario wrote:

I was also wondering if this report had anything to do with the vertical positioning of an HUD weapon being lower and incorrect on non-4:3 ratios.

Do you mean with the original sprites or 3D models?

**#13 - 2015-03-20 11:01 - sonicdoommario**

- File *pistol4-3.png* added
- File *pistol16-9.png* added
- File *shotgun4-3.png* added
- File *shotgun16-9.png* added

The original sprites. I've uploaded screenshots of the Pistol and Shotgun in 4:3 (1152x864) and 16:9 (1920x1080). You can see that the weapons are a little "sunk" on the 16:9 screenshots.

**#14 - 2015-03-21 12:56 - skyjake**

sonicdoommario wrote:

the weapons are a little "sunk" on the 16:9 screenshots.

You have the status bar open. I believe we deliberately move the psprites a bit lower in this case so they won't cover too much of the view. If you hide the status bar, the weapon positioning should not change regardless of the viewport aspect ratio.

**#15 - 2015-03-21 16:08 - skyjake**

- Status changed from *Resolved* to *Closed*

**#16 - 2015-06-07 17:17 - skyjake**

- Copied to Feature #2081: *Menus and psprite weapons should not be stretched (by default) with 16:9 display modes added*

**Files**

---

pistol16-9.png	1.06 MB	2015-03-20	sonicdoommario
pistol4-3.png	648 KB	2015-03-20	sonicdoommario
shotgun4-3.png	649 KB	2015-03-20	sonicdoommario
shotgun16-9.png	1.06 MB	2015-03-20	sonicdoommario