

Doomsday Engine - Bug #1846

[Hexen] Broken saves in the Heresiarch's Seminary hub

2014-07-20 13:32 - JGondek

Status:	Closed	Start date:	2014-07-20
Priority:	High	% Done:	100%
Assignee:	daniij		
Category:	Regression		
Target version:	1.15		
Description			
<p>I've experienced this bug when I was finishing the Heresiarch's Seminary hub. The save I made just before the exit gate has turned out unloadable. When I try to load it, the game exits to the menu screen and the following text is displayed:</p> <p>Load save game "? Press y or n</p> <p>If I press y, the game crashes with the error:</p> <p>Application terminated due to exception: Uncaught exception during loop iteration: [InProgressError] (GameSession::reloadMap) No game session is in progress</p> <p>I attached the provided details.</p> <p>If I press n, I can safely return to the main menu, however any consecutive attempts to load some other save files crashes the game with a "Segmentation error".</p> <p>This also applies to any further save files I make while playing the Castle of Grief hub.</p> <p>That was yesterday. Today none of my saves work, all of them behave like broken. When I press y, the game crashes with a different error:</p> <p>App init failed: [InvalidIdError] (PersistentCanvasWindow::main) No window found with id "main"</p> <p>I've seen this bug before while quick-saving (unfortunately with the 1.14.5 release). I'm attaching the problematic save file.</p> <p>I don't know if it's related, but sometimes when I launch Hexen, an error report appears - "savegametool.exe has stopped working". When I close it, the game loads successfully.</p> <p>There seems to be a problem with attaching files in Redmine, so here are the uploads: https://www.dropbox.com/s/4y1i96weampe1lc/hex2.save <- this doesn't work https://www.dropbox.com/s/akpa20limb17wif/hex5.save <- this worked until today https://www.dropbox.com/s/0550j0g6bdcrsyx/details_after_pressing_y.txt <- log</p>			
Related issues:			
Has duplicate Bug #1850: [Hexen] Possible savegame regression (golden doors c...		Closed	2014-08-06

Associated revisions

Revision 1cbb03ef - 2015-04-27 23:55 - daniij

Fixed|libcommon|ACS: ACS world state deserialization

Somewhere a superfluous 32-bit unsigned integer is being written to the ACS world state data...

IssueID #1846

History

#1 - 2014-07-20 15:16 - daniij

- Status changed from New to In Progress

- Assignee set to danij

#2 - 2014-07-21 00:41 - JGondek

Reinstall of Doomsday Engine fixed the load of all the saves that have been working before. "hex2.save" is still broken.

#3 - 2014-08-06 22:30 - danij

- Has duplicate Bug #1850: [Hexen] Possible savegame regression (golden doors closed on Seven Portals) added

#4 - 2014-08-06 22:40 - skyjake

- Target version set to 1.15

#5 - 2014-09-20 17:04 - JGondek

- File hex1.save added

I found out that the bug is probably map-independent and is caused by erroneous behaviour of the saving mechanism. It is related to the number of consecutive saves and loads (some parameter keeps incrementing and eventually overflows). You can easily see this in the file I attached - to reproduce the bug, save and load the game a few times in a row. I hope you will manage to fix it as it breaks the game. Thank you.

#6 - 2014-09-20 17:19 - danij

We are aware of the cause of this bug however we haven't gotten around to implementing a suitable fix yet. It will definitely be resolved for the 1.15 release.

#7 - 2015-01-11 20:52 - skyjake

- Assignee changed from danij to skyjake

#8 - 2015-01-13 08:09 - danij

- Assignee changed from skyjake to danij

#9 - 2015-01-13 08:28 - danij

details_after_pressing_y.txt:

```
Error loading from save slot #2: [OffsetError] (Block::get) Out of range (268[+4] > 268)
```

This nugget of info is very telling. Sadly, I'd already determined this after a several hours of debugging. Shame that nobody who encountered this issue in the flesh (so to speak) previously had thought to provide their log file else it might have been addressed before now.

#10 - 2015-01-16 17:44 - danij

- % Done changed from 0 to 40

#11 - 2015-01-27 00:51 - danij

- % Done changed from 40 to 90

#12 - 2015-04-27 23:56 - danij

- Status changed from In Progress to Closed

- % Done changed from 90 to 100

#13 - 2015-04-28 14:59 - skyjake

- Tags set to Hexen, SaveGame

This savegame code (readWorldState) is using the libcore Reader/Writer classes? Methods that write an "extra" 4-byte value include withHeader() and variable-length buffer/string methods. I wonder if there is some discrepancy there between the writing/reading code.

Thinking long term, any discrepancies could be avoided by adopting a more abstracted system that describes the data in terms of data fields, where the reading and writing is done automatically the same way by the lower-level objects. In practice, this could be achieved by serializing Records instead of writing C-struct-like data. Serialized Records would also offer better robustness when the saved data changes from one version to another.

#14 - 2015-04-28 21:01 - danij

skyjake wrote:

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Yeah, this code does use libcore's Reader/Writer. More than likely this is indeed a read/write discrepancy but looking at the code nothing immediately stands out and at least appears to be symmetrical.

Files

details_after_pressing_y.txt	16.9 KB	2014-07-20	JGondek
hex2.save	139 KB	2014-07-20	JGondek
hex1.save	139 KB	2014-09-20	JGondek