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1 Introduction

1.1 Greeting

Welcome back!

It's been a while since our last video update. In the meantime, the OpenMW team has released versions 0.36.0 up to 0.38.0.

The first of those only was a maintenance release with some progress on our editor, OpenMW-CS, but version 0.37.0 brought the long awaited switch to the OpenSceneGraph renderer and solved a whooping 224 issues on our bugtracker, making it – by far – the biggest OpenMW release of all time. The decently sized version 0.38.0 further enhanced the playability of our engine, by obliterating many bugs and adding some minor features.

Because of the great changes coming along with the switch of rendering engines, the following video will concentrate on the last two releases of OpenMW. In the future, we may add a detailed video, explaining the reasons for porting our engine to the OpenSceneGraph renderer and highlighting the possibilities introduced by that step.

1.2 Disclaimer

Please note that OpenMW's release count does not reflect a percentage-of-completion but is just iterative. As of now OpenMW is in an almost fully-playable state, with only a few minor features missing, and probably includes less bugs than the original engine.

So feel free to play it like vanilla Morrowind – and if you run into a bug, file an issue on our bugtracker. We are glad of anyone play-testing our engine and helping us to improve it.

With that said: Let's have a look at what's new.

2 OpenMW

2.1 General notes

The first thing you will notice, when upgrading from an older version of OpenMW, is that there are neither shadows nor distant land nor object shaders available anymore. These features haven't been ported to the OpenSceneGraph renderer yet, but will make their appearance in one of the follow-up releases.

The second thing that should come to your mind, is the heavily improved performance of OpenMW. In fact, our engine finally performs better than or at least equal to the vanilla engine in most situations.

2.2 Performance

[Fea_2740]

One reason for this is the optimization of the resource manager, which now merges all data directories and BSA archives to one virtual file tree to speed up loading times.

[Fea_2749], [Fea_2751]

Other little changes, like loading screens not blocking the actual loading procedure or optimizing the character preview in the inventory, further improve frame rates and loading times.

[Fea_2743]

Version 0.37.0 also introduces a brand-new feature to the OpenMW engine: the ability to cull small objects that couldn't be seen on the screen anyway, for example distant objects. This reduces the drawing time of the scene, thus increasing performance.

[Fea_2744]

In addition, the new versions include a configurable near clip distance. Objects closer to the player's eyes won't be rendered, as they wouldn't be seen in any event, saving computing resources.

[Bug_2280]

To cut a long story short: OpenMW should now perform much better than before, and extreme situations, like your PC running out of VRAM during gameplay, should not occur anymore.

[Fea_2739]

To keep track of the impact different tasks have on your memory usage, a new profiling overlay has been implemented. Simply press *F3* in-game and get real-time information. – This may also help us to find bottlenecks in our current integration of the OpenSceneGraph renderer.

2.3 OSG-specific issues

Speaking of the new renderer, even in that early stage of implementation, you can see many improvements over the previous versions. Our workhorse Scrawl has not only ported almost every rendering task to the OpenSceneGraph rendering engine, but also managed to get rid of some long-time issues on our bugtracker.

[Bug_814]

With version 0.37.0 NPCs no longer suffer from chronic anorexia and are scaled according to their weight.

[Bug_827]

Correct scaling is also true for the collision boxes of dead actors – may it be the victims of your recent spear berserk attack or some over-curious Cliffracers – so taking your well-deserved loot shouldn't be a problem anymore.

[Bug_455]

Creatures' collision boxes are resized, too, when a certain animation makes it necessary.

[Bug_1699]

Moreover the combat AI now takes account of collision boxes, when checking the distance to the target. For example, this should prevent guards from endlessly running into a mudcrab, they want to fight eagerly in order to protect the player.

[Bug_2720]

Did you realize that creatures' heads weren't tracking the player? This issue is fixed now as well. Creepy!

[Fea_2885]

And if that wasn't enough, OpenMW now supports OpenSceneGraph's native model format. For the time being, this format only enables basic modeling, but in the future more features, like adding bump maps, texture and skeletal animations or separate

collision shapes, will be added. Please, pay attention to the advantages an open source model format has over the proprietary NIF format: It is extendible, maintainable, free-licensed and, hopefully, easy to export to modelling software like Blender.

2.4 Visual Effects

[Bug_385]

The way the game was rendered in previous versions, lead to some visual bugs and glitches. With the switch to OpenSceneGraph, many of them have been eliminated. For example, light emitting objects now have their light effect attached correctly, as a result of getting rid of static geometry.

[Bug_2355]

Previously, players who cast a light spell on themselves in first-person view, ended up in the same absence of light they tried to escape from. This is fixed now, so anxious characters can continue raiding darksome dungeons.

[Bug_2364]

Light spells have also been tuned in brightness to equal the vanilla version.

[Bug_2111], [Bug_2140], [Bug_2362]

The previously used Ogre3d rendering engine has some issues with transparency sorting, that means, sometimes the wrong object is made solid, leaving other, actually visible objects hidden. Moreover, the foliage of trees standing close to each other can look weird sometimes. Transparency sorting in OpenSceneGraph works differently, so this problem shouldn't occur anymore. The same goes for light sources and parts of creatures turning to solid black when observed through the flame of, for example, an open fire.

[Bug_2270]

Players who recently suffered from objects flickering in and out of sight during gameplay, can now enjoy their adventures in a more persistent way.

[Bug_1963]

In addition the pulse rate of light sources has been modified to suite the vanilla game. This makes exploring Dwemer ruins much less disruptive.

[Bug_1563]

Finally, the famous "vibrating cells" bug has been fixed. Wandering around in far-out

112 cells will no longer cause the terrain to shake. Mods like Tamriel Rebuilt, who greatly
113 expand the used land mass, should now be a lot more comfortable to play through.

114 2.5 Visual Effects II

115 [Fea_2983]

116 Since version 0.17.0, OpenMW's water has been an eye candy, thanks to Scrawl's water
117 shader, the so-called *Shiny*. The shader has already been ported to the OpenSceneGraph
118 renderer to compensate you for the temporary lack of shadows. Along with Scrawl's first
119 attempt on a Sun Glare Fader, the graphic quality of sunrise and sunset has reached a
120 new level in Morrowind.

121 [Bug_996]

122 Do you remember the old Morrowind bug which let you see everything below water
123 level when swimming near the surface? Well, I would call this an exploit – and rather
124 unpleasant from a visual perspective. Thanks to the OpenMW team this is no issue
125 anymore – at least, when you switch to our open source engine.

126 [Bug_2833]

127 Formerly, OpenMW scaled the swim height of characters in a wrong way, making
128 navigation difficult, for the player partially looked underwater while swimming. As you
129 certainly have guessed, the scaling is implemented properly in version 0.37.0.

130 [Bug_1511]

131 In addition, OpenMW now imports the underwater fog settings declared in the Morrowind
132 INI file correctly. This makes the player's underwater experience much clearer.

133 [Bug_1813]

134 Another bug arose from OpenMW miscalculating the activation range of light sources.
135 This lead to seriously disturbing scenes, where one underwater plant lit up a whole body
136 of water during night-time. The code has been fixed now, so your nightly swimming
137 routines will become much darker in the future.

138 2.6 Combat, AI, Game Mechanics

139 [Bug_1330], [Bug_1366]

140 Did you ever run into a combat scene where six guards were trying to fight down a

rat and were desperately penetrating the sole air surrounding them? Alas, these truly exhilarating moments are lost, for the new version allows the combat AI to correctly adjust the vertical angle of an attack move. – Oh, and that means Cliffracers will be able to hit you again too. Just a warning.

[Bug_2755]

In the past, actors involved in a fight with multiple opponents switched their combat targets way too often. This behaviour is fixed now, so the AI's chances of beating up some bullies have increased.

[Bug_2786]

Creatures which cannot move at all, should never attempt to start a combat. This now works correctly in OpenMW, preventing Kwama Queens from turning their head to rather unsavoury angles.

[Bug_2856]

Also, non-existing hit animations aren't played anymore. This can be seen with the Heart of Lorkhan correctly emitting particles and reducing its size, when hit by the weapons Keening or Sunder.

[Bug_2917]

In previous versions of OpenMW, the magic effect of chameleon could not be applied to creatures. This issue was finally solved in version 0.37.0 – goodbye, poor old Creeper.

[Bug_2782], [Bug_2915]

On the player's side, there have been changes too. Your character will no longer be able to ready his weapon while being paralysed. This makes Scribes a lot more annoying again. Moreover paralysed characters cannot enter and exit the sneak mode anymore.

[Bug_2986]

A significant change has been made to the ranged combat mechanics. In earlier versions, if the player was underwater or trying to shoot something through the water surface, the projectiles would smoothly travel through the water. This is not the case in the recent release as projectiles cannot be used underwater anymore.

[Bug_2761]

To compensate you for these little drawbacks, it now is possible to start attacks during block animations.

[Bug_2781], [Bug_2875]

Also, the player's chance of being attacked while sleeping, has been adjusted to fit the vanilla game. Due to a wrong formula, players were attacked more often when resting for 1 hour than when resting for several hours.

[Bug_2776]

When playing as a Khajiit or as an Argonian, you aren't able to equip full helmets or boots. Trying to do so, will automatically unequip the corresponding item and trigger an appropriate message. However, the game treated those items as regularly equipped items, which lead to absurd situations, for example ordinator beating you to death in the false belief that you were wearing an Indoril Helmet. This behaviour has been fixed now – and, eh, where did you get that Indoril Helmet from in the first place?

[Bug_2198], [Bug_2281], [Bug_3038]

With version 0.37.0, you will also realize that NPCs no longer tend to threaten you when they die, but rather end their life screaming, as they did in vanilla Morrowind. Additionally, the NPC voice sound source has been moved from the feet to the head in order to mimic the real-world behaviour, I hope everyone is used to. The same is true for the player, too.

[Bug_2457]

Player's followers will now refrain from reporting crimes which you commit while they are travelling on your side, as to prevent themselves from ending up as a screamer too. Nobody likes tell-tales.

[Bug_2697]

In fact, followers should now help the player in combat and even follow him through teleport doors.

[Bug_2513]

After getting rid of your opponents, you are free to dress them up as you wish. While I consider this to be a rather morbid hobby, dead bodies come in handy for some mods who simply use them as mannequins to bear up the treasures you collected by – eh – killing other people. In previous versions, these mannequins suffered from death animations, making them fall to the ground. This behaviour has now been fixed, so nothing prevents you from dressing up corpses anymore.

2.7 Game Mechanics II

[Bug_2722]

In previous releases, it was possible to create single-ingredient potions by using an ingredient with the same effect listed more than once. Moreover, if you just created a potion without any effect, no ingredients were removed from your inventory while the game stated the well-known "Your potion failed." text box. These two glitches have been solved, so get back to honest work – like buying copious amounts of cheap ingredients from a trader, create dozens of potions and sell these potions back to the trader. Yeah...

[Bug_2792]

Speaking of traders: With the new versions you are no longer able to glitch free items when offering too little money in the trade window.

[Bug_3034]

The same goes for another glitch allowing the player to pay a fee without having the appropriate amount of gold at hand, by simply dropping all inventory gold before confronting the guards.

[Bug_2811], [Bug_2826]

Not every magic effect can be used on any target. For example, "Open Lock" spells are only suitable for lockable activators or containers. A former misbehaviour, allowing magic effect sounds and visual effects to be played on arbitrary targets, could lead to minor glitches or even cause the game to freeze. This issue is solved now.

[Bug_2853]

Formerly, OpenMW applied the magic effect of "Disintegrate Weapon" to lockpicks and probes as well, potentially using them up. This is no problem anymore.

[Bug_3102]

Another bug occurred when casting two unique soul trap spells on a creature. If the player carried at least two soul gems of sufficient size with him, the soul would be trapped twice. This exploit is no longer a problem in version 0.38.0, which should noticeably decrease Galbedir's workload.

[Bug_3105]

To stay on track: The behaviour of summoned creatures and objects has also seen a slight rework. In the past, those summoned instances would vanish at midnight, possibly

leaving the player unprotected in an epic battle against some ravenous Cave Rats. This should not happen anymore.

[Bug_3036]

When playing with the so-called "Owned" option, the background of tooltips is coloured to reflect the owner status of the corresponding objects – be it doors, chests or individual items. Formerly, this option also affected none-objects, for example spells the player had purchased from a trader. This behaviour is implemented correctly now.

[Bug_3122]

And, did you know that NPCs in OpenMW had their eyes on the back of their heads – at least when the player was in sneak mode? The NPCs' view direction was inversed during the sneak awareness check, which, of course, has been fixed now.

2.8 Field of View

[Fea_858], [Bug_3051], [Fea_3064]

When changing the field of view to very high values, rendering glitches may appear in first-person view. In the vanilla game this problem only occurs in werewolf mode and is solved by only applying the changes to the game world, not to the first-person meshes. A more flexible solution has been implemented in OpenMW, with two field of view settings, one for the first-person meshes and one for the game world. The settings for the werewolf field of view are imported from the Morrowind INI file. Please note, that it may be necessary to re-run the settings importer in the OpenMW launcher, in order to make this feature work.

[Bug_3100]

Another werewolf-related bug has been solved: Previously, certain controls like "Next Weapon", "Previous Weapon" or "Ready Magic" were available to player's in werewolf mode. This has been fixed to force players to fall back to more traditional werewolf weapons – menacing claws!

2.9 Movement between cells

[Fea_1176], [Bug_2537], [Bug_2865], [Bug_2933], [Bug_2993], [Bug_3047]

Version 0.38.0 includes a milestone in OpenMW development: Finally, movement of

objects between cells has been implemented! Previous versions worked around this feature by simply deleting and recreating an object on cell transition. Obviously, this lead to several bugs and, occasionally, to severe misbehaviour. For example, in one of Bloodmoon's main quests some of your companions are scripted to die of werewolf attacks. Because of intermediate cell changes the script could fail, leaving the quest irresolvable. The same went for other scripts affected by movement between cells, such as scripts containing direct positioning commands, or scripts trying to disable NPCs in another cell. This also affected mods like the famous *Julan Ashlander Companion*. All these issues should be fixed now.

2.10 GUI, menus, localization

[Bug_2711]

Vvardenfell is quite a large place to be, and other mods may expand the land mass drastically. To keep track of your journeys it is possible to add notes to the in-game map. Unfortunately notes taken in exterior cells which are automatically marked – such as towns or large dungeons – would not appear in those markers' tooltips. This has been fixed in version 0.37.0.

[Bug_2559]

To detect secrets, like enchanted items, there are dedicated spells available which make corresponding objects visible on your local map. Earlier Versions of OpenMW drew the player arrow, marking the player's position, on top of these markers, negating their purpose. This issue has been fixed too.

[Bug_2832], [Bug_2840]

Morrowind exists in several localized versions. In the past, there were some problems with cell names not being localized correctly on the world map, and a few text boxes in the save/load menu not being localized, too. These issues should be solved in the current releases.

[Fea_3074]

When exploring dangerous dungeons, the player may want to quick save his game often, as Morrowind can be quite unforgiving in the matter of combat difficulty. With improved performance, and thus shorter saving times, there is a chance that the save bar isn't noticeable anymore. However, to indicate a successful save a quicksave indicator has been implemented in version 0.38.0.

[Fea_2528]

And for those of you who want to know how much time they've already spent on Vvardenfell, there is a game time tracker available now which is shown in the corresponding save preview.

[Fea_2999], [Fea_2745]

In the past, there have been many complaints about books and scrolls not scaling with higher screen resolutions. This has now been implemented and should greatly improve your reading experience. In addition, you can easily scale your whole user interface by changing the appropriate setting in the settings configuration file located in your user directory.

[Bug_2504]

Another bug occurring in previous versions was the dialogue topics scroll not starting at the top when entering a new dialogue, but rather on the position you left it in the previous dialogue window. This should work now – and prevent you from a lot of scrolling in the later game.

[Bug_2863]

The inventory window has seen some improvements, too. Formerly, the shown category of the inventory was reset to "all" when loading a savegame. Unfortunately, the category that was chosen before loading stayed highlighted, which was very confusing. As of now, this bug is fixed.

[Bug_2769]

Previously, the dressing and undressing of your character could become slightly annoying, with the mouse cursor picking up clothes worn underneath those you wanted to select. This issue has been addressed in the current release.

[Bug_2944]

Racial powers can only be used once per day and, after that, are useless for 24 hours of in-game time. To match up the vanilla behaviour, the corresponding spell icon on the bottom left side of the screen now displays a black bar indicating a spell chance of 0 after a racial power has been activated.

[Bug_3028]

Moreover, the tooltips for player's Health, Magicka and Fatigue are no longer displayed if the corresponding icons are invisible, for example when you've entered the options menu.

3 OpenMW-CS

3.1 Current status

With OpenMW nearing version 1.0, questions about future modding capabilities and tools have become more and more apparent.

OpenMW ships its own construction set, OpenMW-CS, which should allow modders to do everything they could have done in the original Construction Set, and more, providing a much improved user interface and work flow.

While at a steady pace of development, OpenMW-CS lags behind its corresponding engine. The switch to the OpenSceneGraph renderer has caused some drawbacks here, too, with some features – such as path-grid rendering and camera movement – not being re-implemented yet.

So when you have some spare time, a bit of knowledge in QT-coding and are willing to help OpenMW-CS grow as great as OpenMW – now is your chance.

Nevertheless, there have been some major improvements since the last releases.

3.2 GUI

3.3 Scene Rendering

4 Miscellaneous

4.1 Related projects

OpenMW is not only an engine to play good-ol' Morrowind in a more stable and moddable way, but is also suitable for the creation of completely new games.

The OpenMW Game Template project has set its goal to providing the very basic contents a programmer would need in order to create a whole new game, using the OpenMW engine. It will only contain free-licensed content independent from Bethesda's games, so don't worry about copyright issues.

At a more content-based view, the OpenMW Example Suite is in active development too. Its purpose is to show off the improved and additional features of the OpenMW engine over the vanilla one. Settled in a world distinct from Bethesda's Nirn, it will contain a small storyline, new items and new characters to – literally along the way – let the player discover the capabilities of our new engine.

So that's it: Another two reasons to get you involved with OpenMW; don't let that chance go away! If you're interested, check out our forums for more information on these projects.

And if you want Multiplayer implemented – first successful attempts seem to have been made. Or go crazy with the Morrowind Original Asset Replacement project and help to replace all vanilla textures with better ones while staying true to the original designs.

"There are a few ways we can do this, and the choice is yours!"

4.2 Donations

Although the OpenMW team does not accept direct donations, there are two possibilities to support us, at least indirectly:

First of, you could donate to Scrawl's Patreon account. Scrawl is one of the main developers of OpenMW and has already dedicated hundreds of hours to developing OpenMW, which is the main reason why we are at the edge of releasing version 1.0. So donating to him would allow him to continue – or even expand – his hard work on open source Morrowind. And by the way: Scrawl also has plans for the time after version 1.0

372 has been released – the beautiful water shader you can enjoy in OpenMW is just the
373 beginning!

374 Besides Scrawl, there are other important members of the team which are often overseen.
375 For example, people like ACE provide nightly builds of our engine, so that developers
376 and testers can play-test with the latest commits applied. Hosting those builds isn't for
377 free, so please consider a donation.

378 The corresponding links are available below this video and on our homepage, openmw.org.

379 **5 Closing remarks**

380 **5.1 Future and outreach**

381 That is everything to talk about now. Let's hope this year to be the one bringing
382 OpenMW version 1.0 to players' hands! And don't be shy to spread the word about our
383 project – I dream of a world where OpenMW isn't considered a mod anymore, and where
384 we aren't treated as a visually downgraded Skywind.

385 Don't forget to check the official release notes for more in-depth information and visit
386 our official forums on openmw.org.

387 **5.2 Thanks for watching**

388 Thanks in advance for your support. We hope to get back to regular release videos in the
389 future, so stay tuned for following updates. – And as always: thanks for watching!

Issues included

[Bug_385]	Bug 385: Light emitting objects have a too short distance of activation https://bugs.openmw.org/issues/385
[Bug_455]	Bug 455: Animation doesn't resize creature's bounding box https://bugs.openmw.org/issues/455
[Bug_814]	Bug 814: NPC width https://bugs.openmw.org/issues/814
[Bug_827]	Bug 827: Inaccurate raycasting for dead actors https://bugs.openmw.org/issues/827
[Fea_858]	Feature 858: Different fov settings for hands and the game world https://bugs.openmw.org/issues/858
[Bug_996]	Bug 996: Can see underwater clearly when at right height/angle https://bugs.openmw.org/issues/996
[Fea_1176]	Feature 1176: Handle movement of objects between cells https://bugs.openmw.org/issues/1176
[Bug_1330]	Bug 1330: Cliff racers fail to hit the player https://bugs.openmw.org/issues/1330
[Bug_1366]	Bug 1366: Combat AI can't aim down (in order to hit small creatures) https://bugs.openmw.org/issues/1366
[Bug_1511]	Bug 1511: View distance while under water is much too short https://bugs.openmw.org/issues/1511
[Bug_1563]	Bug 1563: Terrain positioned incorrectly and appears to vibrate in far-out cells https://bugs.openmw.org/issues/1563
[Bug_1699]	Bug 1699: Guard will continuously run into mudcrab https://bugs.openmw.org/issues/1699
[Bug_1813]	Bug 1813: Underwater flora lighting up entire area. https://bugs.openmw.org/issues/1813

[Bug_1963]	Bug 1963: Kwama eggsacks pulse too fast https://bugs.openmw.org/issues/1963
[Bug_2111]	Bug 2111: Raindrops in front of fire look wrong https://bugs.openmw.org/issues/2111
[Bug_2140]	Bug 2140: [OpenGL] Water effects, flames and parts of creatures solid black when observed through brazier flame https://bugs.openmw.org/issues/2140
[Bug_2198]	Bug 2198: NPC voice sound source should be placed at their head https://bugs.openmw.org/issues/2198
[Bug_2270]	Bug 2270: Objects flicker transparently https://bugs.openmw.org/issues/2270
[Bug_2280]	Bug 2280: Latest 32bit windows build of openmw runs out of vram https://bugs.openmw.org/issues/2280
[Bug_2281]	Bug 2281: NPCs don't scream when they die https://bugs.openmw.org/issues/2281
[Bug_2355]	Bug 2355: Light spell doesn't work in 1st person view https://bugs.openmw.org/issues/2355
[Bug_2362]	Bug 2362: Lantern glass opaque to flame effect from certain viewing angles https://bugs.openmw.org/issues/2362
[Bug_2364]	Bug 2364: Light spells are not as bright as in Morrowind https://bugs.openmw.org/issues/2364
[Bug_2457]	Bug 2457: Player followers should not report crimes https://bugs.openmw.org/issues/2457
[Bug_2504]	Bug 2504: Dialog scroll should always start at the top https://bugs.openmw.org/issues/2504
[Bug_2513]	Bug 2513: Mannequins in mods appear as dead bodies https://bugs.openmw.org/issues/2513
[Fea_2528]	Feature 2528: Game Time Tracker https://bugs.openmw.org/issues/2528

[Bug_2537]	Bug 2537: Bloodmoon quest Ristaag: Sattir not consistently dying, plot fails to advance; same with Grerid https://bugs.openmw.org/issues/2537
[Bug_2559]	Bug 2559: Make Detect Enchantment marks appear on top of the player arrow https://bugs.openmw.org/issues/2559
[Bug_2697]	Bug 2697: "The Swimmer" moves away after leading you to underwater cave https://bugs.openmw.org/issues/2697
[Bug_2711]	Bug 2711: Map notes on an exterior cell that shows up with a map marker on the world map do not show up in the tooltip for that cell's marker on the world map https://bugs.openmw.org/issues/2711
[Bug_2720]	Bug 2720: Head tracking for creatures not implemented https://bugs.openmw.org/issues/2720
[Bug_2722]	Bug 2722: Alchemy should only include effects shared by at least 2 ingredients https://bugs.openmw.org/issues/2722
[Fea_2739]	Feature 2739: Profiling overlay https://bugs.openmw.org/issues/2739
[Fea_2740]	Feature 2740: Resource manager optimizations https://bugs.openmw.org/issues/2740
[Fea_2743]	Feature 2743: Small feature culling https://bugs.openmw.org/issues/2743
[Fea_2744]	Feature 2744: Configurable near clip distance https://bugs.openmw.org/issues/2744
[Fea_2745]	Feature 2745: GUI scaling option https://bugs.openmw.org/issues/2745
[Fea_2749]	Feature 2749: Loading screen optimizations https://bugs.openmw.org/issues/2749

[Fea_2751]	Feature 2751: Character preview optimization https://bugs.openmw.org/issues/2751
[Bug_2755]	Bug 2755: Combat AI changes target too frequently https://bugs.openmw.org/issues/2755
[Bug_2761]	Bug 2761: Can't attack during block animations https://bugs.openmw.org/issues/2761
[Bug_2769]	Bug 2769: Inventory doll - Cursor not respecting order of clothes https://bugs.openmw.org/issues/2769
[Bug_2776]	Bug 2776: ordinator's still think I'm wearing their helm even though Khajiit and https://bugs.openmw.org/issues/2776 argonians can't
[Bug_2781]	Bug 2781: sleep interruption is a little off (is this an added feature?) https://bugs.openmw.org/issues/2781
[Bug_2782]	Bug 2782: erroneously able to ready weapon/magic (+sheathe weapon/-magic) while https://bugs.openmw.org/issues/2782 paralyzed
[Bug_2786]	Bug 2786: Kwama Queen head is inverted under OpenMW https://bugs.openmw.org/issues/2786
[Bug_2792]	Bug 2792: glitched merchantile/infinite free items https://bugs.openmw.org/issues/2792
[Bug_2811]	Bug 2811: Targetted Open spell effect persists. https://bugs.openmw.org/issues/2811
[Bug_2826]	Bug 2826: locking beds that have been locked via magic psuedo-freezes the game https://bugs.openmw.org/issues/2826
[Bug_2832]	Bug 2832: Cell names are not localized on the world map https://bugs.openmw.org/issues/2832
[Bug_2833]	Bug 2833: [cosmetic] Players swimming at water's surface are slightly too low. https://bugs.openmw.org/issues/2833

[Bug_2840]	Bug 2840: Save/load menu is not entirely localized https://bugs.openmw.org/issues/2840
[Bug_2853]	Bug 2853: [exploit/bug] disintegrate weapon incorrectly applying to lockpicks, probes. creates unbreakable lockpicks https://bugs.openmw.org/issues/2853
[Bug_2856]	Bug 2856: Heart of Lorkhan doesn't visually respond to attacks https://bugs.openmw.org/issues/2856
[Bug_2863]	Bug 2863: Inventory highlights wrong category after load https://bugs.openmw.org/issues/2863
[Bug_2865]	Bug 2865: Scripts silently fail when moving NPCs between cells. https://bugs.openmw.org/issues/2865
[Bug_2875]	Bug 2875: [bug] special cases of fSleepRandMod not behaving properly https://bugs.openmw.org/issues/2875
[Fea_2885]	Feature 2885: Accept a file format other than nif https://bugs.openmw.org/issues/2885
[Bug_2915]	Bug 2915: When paralyzed, you can still enter and exit sneak https://bugs.openmw.org/issues/2915
[Bug_2917]	Bug 2917: OpenMW: chameleon does not work for creatures https://bugs.openmw.org/issues/2917
[Bug_2933]	Bug 2933: Dialog box can't disable a npc if it is in another cell. (Rescue Madura Seran). https://bugs.openmw.org/issues/2933
[Bug_2944]	Bug 2944: Spell chance for power to show as 0 on hud when used https://bugs.openmw.org/issues/2944
[Fea_2983]	Feature 2983: Sun Glare fader https://bugs.openmw.org/issues/2983
[Bug_2986]	Bug 2986: Projectile weapons work underwater https://bugs.openmw.org/issues/2986

[Bug_2993]	Bug 2993: Tribunal:The Shrine of the Dead - Urvel Dulni can't stop to follow the player. https://bugs.openmw.org/issues/2993
[Fea_2999]	Feature 2999: Scaling of journal and books https://bugs.openmw.org/issues/2999
[Bug_3028]	Bug 3028: Tooltips for Health, Magicka and Fatigue show in Options menu even when bars aren't visible https://bugs.openmw.org/issues/3028
[Bug_3034]	Bug 3034: Item count check dialogue option doesn't work (Guards accept gold even if you don't have enough) https://bugs.openmw.org/issues/3034
[Bug_3036]	Bug 3036: Owned tooltip color affects spell tooltips incorrectly https://bugs.openmw.org/issues/3036
[Bug_3038]	Bug 3038: Player sounds come from underneath https://bugs.openmw.org/issues/3038
[Bug_3047]	Bug 3047: NPC[MOD: Julian Ashlander Companion] Scripts KS_Bedsript or KS_JulanNight not working as intended https://bugs.openmw.org/issues/3047
[Bug_3051]	Bug 3051: High field of view results in first person rendering glitches https://bugs.openmw.org/issues/3051
[Fea_3064]	Feature 3064: Werewolf field of view https://bugs.openmw.org/issues/3064
[Fea_3074]	Feature 3074: Quicksave indicator https://bugs.openmw.org/issues/3074
[Bug_3100]	Bug 3100: Certain controls erroneously work as a werewolf https://bugs.openmw.org/issues/3100
[Bug_3102]	Bug 3102: Multiple unique soultrap spell sources clone souls. https://bugs.openmw.org/issues/3102
[Bug_3105]	Bug 3105: Summoned creatures and objects disappear at midnight https://bugs.openmw.org/issues/3105

[Bug_3122] Bug 3122: NPC direction is reversed during sneak awareness check
<https://bugs.openmw.org/issues/3122>