

External Utilities

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Over the course of Morrowind's ever extending lifespan a great many utilities have emerged from the hands of talented programmers, willing to contribute their own efforts to this community-driven phenomenon. Each one of these utilities has contributed to a growing (and ever more well-rounded) toolkit, enabling Morrowind to reach a potential that I don't think even Bethesda would have imagined. At first, they were mostly aimed at improving the stability and flexibility of the somewhat limited game engine. Over time we've seen a shift into highly specialized apps, that can perform just about any task a player or modder might hope for. It has been quite something to witness.

The aim of this guide isn't to catalog every utility written for Morrowind, or even to identify the best ones within a given category. Rather, this should serve as an introduction to the sorts of tasks one is able to perform, thanks to the usefulness provided by these tools. It just so happens you'll be introduced to some of the utilities I've gotten comfortable using over the years. It isn't uncommon to find several worthwhile programs, each designed to achieve essentially the same outcome, albeit in a slightly unique way. If something here sparks an interest, but there's something about the particular app you don't care for, there's a good chance an alternative is out there more suitable to your taste and/or comfort level. My main hope is that you'll go away with a sense for what can be accomplished through careful use, that you'll develop an appreciation for just how useful these things are and the hard work & selfless efforts of their creators. If you do, consider dropping them a line to say Thanks. Bear in mind that these intentionally brief introductions on usage are meant only as a means of helping you get started and should in no way take the place of the author's original documentation.

Morrowind Code Patch (MCP) – If there is one amongst them all that should probably be used first, it is MCP. To be honest, I have been away from the game for some time, and only recently heard of this myself. But I have a fair understanding of what this is able to fix, and the significance of those changes. In the short time I've been using it (with some very old save files mind you) it has performed marvelously, bringing much relief to some long-nagging issues. Without a doubt you should read fully through the included documentation before doing anything with this utility. But I can assure you it is probably one of the easiest to use of all the programs featured in this guide. The key thing to understand here is that the program is broken down into sections; look for the section headers. At first, you're presented with options for implementing features that go above and beyond what the game engine originally intended to do. So think of these as optional features, available for you to implement, at your discretion, based on your own personal preferences. Read each description, and pick n choose carefully. The very last section is the 'bug fixes' section. This addresses issues that have so far (in most cases) eluded modders in their efforts, mostly due to inherent limitations in the Construction Set.

Using my own, personalized configuration as an example, here are the options I've selected:

Graphics changes

- Rain/snow collision (*with requisite ini tweaks*)
- Increase light falloff range
- Bump/reflect map local lighting

Game mechanic changes

- Toggle sneak
- Strength-based hand to hand damage

Interface changes

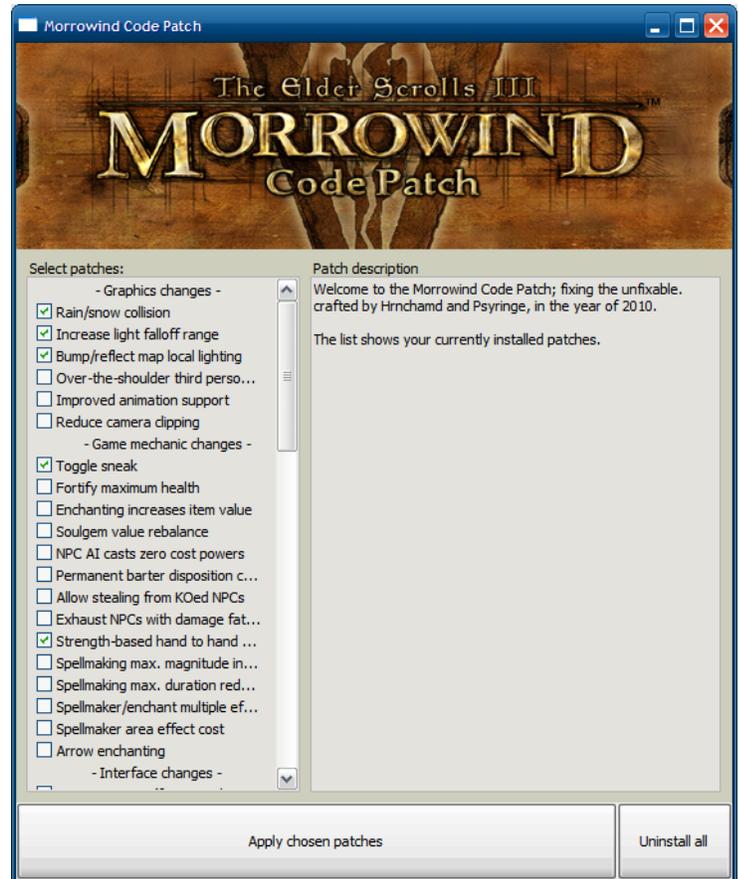
- Unrestrict menu size
- Larger service/chargen menus
- Display more accurate item weight

Bug fixes

- All checked

Thanks go out to Hrnchamd and Psyringe for this long awaited nagging issues fixer.

Note: Screenshot to the right is for MCP



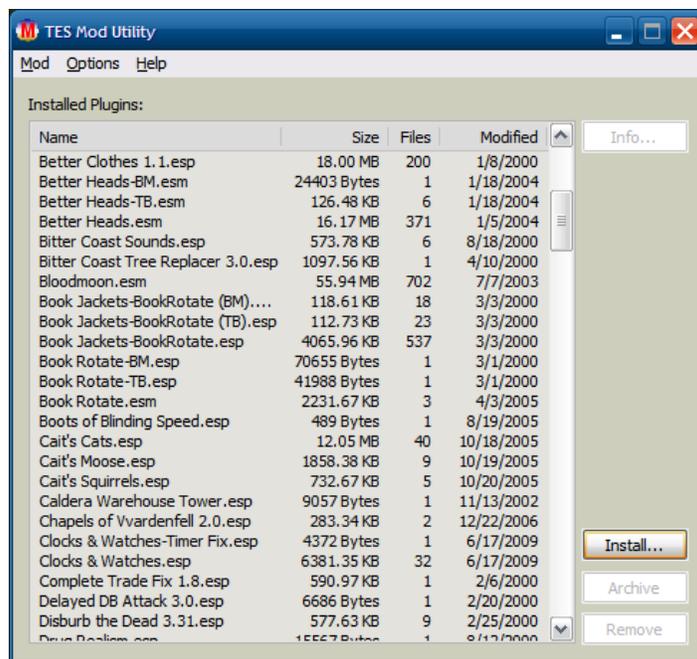
Exe Optimizer - This is a 'one time use' utility from Timeslip that somehow "patches" the Morrowind exe for a potential performance boost. It seems also designed to help reduce crashes, also known as CTDs (Crashes to Desktop). According to the ReadMe this will not conflict with FPS Optimizer (a separate utility discussed further on). I can't say for sure how effective it is, only that my game rarely crashes and usually due only to specific mod conflicts. So my personal thanks goes out to Timeslip for this great tool.

IMPORTANT: If you're planning on running Morrowind Code Patch and Exe Optimizer, MCP must be used *before* Exe Optimizer. If you try to do it the other way around MCP simply won't work.

By the way; always make a backup of the clean/untouched Morrowind.exe and Morrowind.ini files before initiating any changes to the game, especially when utilities like these are being used.

TES Mod Utility - This utility has one primary purpose, to cleanly install or uninstall mods that come with a lot of mesh & texture files (also known as nif and dds files). When mods go beyond just tweaking the game to actually changing or upgrading characters, clothing, objects, buildings etc. they often include these kinds of files in addition to the standard esp file. *Remember that esps are the "plugins" you add to the Data Files directory before running the game.* When you first download these kinds of mods they'll be in some kind of compressed form such as a zip, ace, rar or something along those lines. Why use TES Mod Utility? Simple, because if you merely extract the contents of a zip file let's say, directly to the Data Files directory (as many mods instruct) there won't be any record whatsoever of where all those files went. And so what happens is when you go to uninstall that particular mod you'll realize that all of its associated files are buried throughout the Data Files directory, adding nothing but bloat & clutter. The neat thing about TES Mod Utility is it will locate and remember exactly where everything went AND perform the installation or removal for you, removing only what

was originally placed there by the mod in question. So as you can imagine this is a very helpful utility for not only installing/uninstalling different mods, but also keeping your Morrowind folder clean and in good working order. As an added bonus you can even start using TES Mod Utility despite having a bunch of mods already installed. It will simply perform an analysis to determine what plugins are present and which files are associated with each one.



Note that some mods, regardless of how they're packaged, still require manual installation. If this is the case you'll need to extract the contents directly to your desktop, then manually drag and drop each folder into the correct location. I recommend doing this in Windows Explorer. And, as always, consult the ReadMe for special instructions. A Huge Thanks to Macgyver for this great utility (that doesn't require duct tape or paper clips).

Texture Pack Uninstaller – Here is a tool that can potentially save a lot of time and headache, especially when things have run amok in the texture pack department. With so many texture packs to choose from it can be difficult to resist the temptation to go out and try a great many of them, only to end up with bits and pieces left over from long removed texture packs (also called 'texture replacers') giving the gameworld something of a patchwork character. There are of course 'good practices' widely recommended by experienced players, but those can easily be overlooked by players who either haven't heard of these recommended approaches or never felt inclined to follow them. In comes Texture Pack Uninstaller to save the day – or at least prevent you from having to reinstall the game from scratch just to restore the game's textures to a sane level.

The approach to this little tool is fairly ingenious. Without getting into the technicalities, which would be beyond my ability anyway, I can mention that it basically uses Windows Batch Files to perform an automated cleanup of the Data Files/Textures folder, removing anything that isn't a core Morrowind texture file. The next time you run the game Morrowind will replace any missing files from its bat archives, thus restoring them to their native state. In the case of my game I had experimented with a small handful of texture replacers (those focused on buildings & terrain) and ended up with little patches here and there following half-hearted attempts at uninstalling them. After executing these batch files it appears they've done what they were designed to do as so far most everything seems to have reverted to their original textures. The primary target of this utility

after all is undoing changes made by the larger game world 'replacer' packs. But therein lies the rub. In addition to the many large scale replacers many of us have implemented some of the outstanding smaller replacer packs focused more on specific game objects, like silverware or weapons. And I can report from first hand experience that some (but not all) of these will be affected by the use of this utility. There shouldn't be anything game-breaking about this outcome, other than the need to decide up front if you're willing to reinstall some of the smaller, focused texture packs following a *Texture Pack Uninstaller* cleanup. Here's a brief overview of my experience to give an idea about what this might entail. Individual circumstances may vary.

Texture Pack Uninstaller outcome for Fessic's game:

- Lingering remnants of world texture replacers finally cleaned up and removed
- Magic Icon Border needed to be reinstalled – very simple
- Verts Hi-res menubook and scroll pack needed to be reinstalled – took all of 30 seconds
- Silverware Enhancer needed reinstall – quick, simple
- All other minor texture packs appear to still be in place – excellent
- Morrowind Graphics Extender (MGE) appears to be broken – uh oh

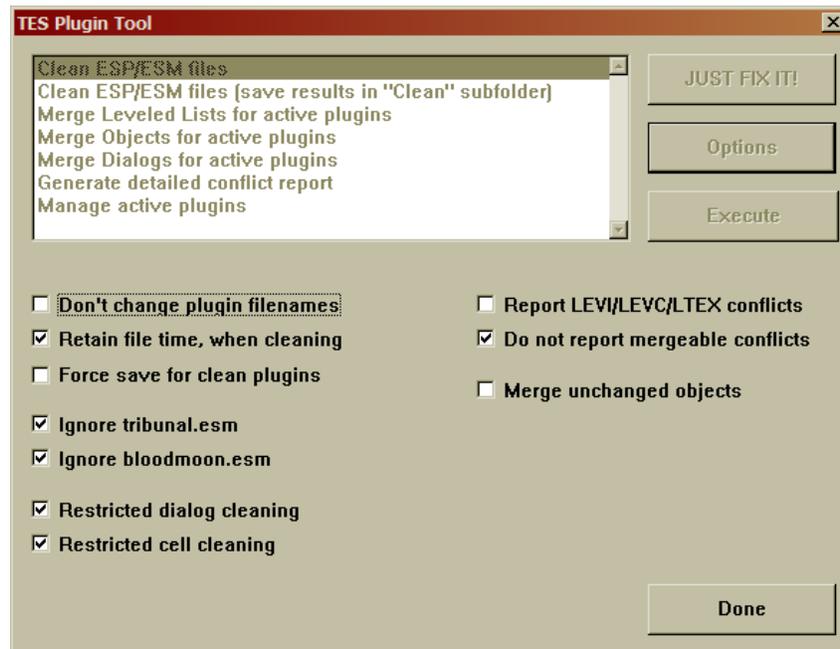
Actually, it's not as bad as it sounds. But users of MGE should take note. There is a chance that Texture Pack Uninstaller will render MGE inert – though not actually break it. How do I know? It was simply a matter of replacing only the texture and mesh related files and folders associated with MGE. I didn't even need to reconfigure the MGE settings. I *did* however need to recreate my Distant Land statistics using the built-in tool, *which if anyone has done this previously knows is a very straightforward process involving nothing more than carefully clicking through a series of menus while the program does the rest*. My thinking is if someone's comfortable enough to be using MGE in the first place they should have no trouble recovering MGE from the minor effect Texture Pack Uninstaller has upon it. Although, I would strongly suggest you either backup your MGE settings (or at least write them down somewhere). *My approach is to take screenshots of each tab*.

Overall, in my view, Texture Pack Uninstaller is worth a look, and worth using despite some of the minor touch up needed afterwards. There's something satisfying about knowing that all those unwanted textures have finally been cleaned out, and done so without having to reinstall the entire game from scratch. I don't doubt there will be one or two more small texture replacers that I'll realize need to be reinstalled, but even so my conclusion is it was still worthwhile. *My thanks to Jaxalot for making these batch files publicly available*.

TES Tool (also known as TESTool) – Arguably the spiritual predecessor to all Morrowind utilities currently in circulation. This truly outstanding tool does several things (*some of which have been superseded by more recent utilities; but more on that in a moment*). First, it includes a feature that cleans mods (esp and esm files) of dirty GSMT references. It cleans mods? Yes. Why do mods need to be cleaned? What are GSMTs? Ah; well...those are questions best left to the knowledgeable forums folks, who would undoubtedly do a better job of explaining than I would. In the meantime just know that, in most cases, cleaning mods (or having a clean mod to start with) is a good thing, and TES Tool will help you do that. The other primary feature you'll most likely want to use is the Merging function, which somehow manages to fix most conflicts between the many mods you will likely end up running. There are actually multiple Merging functions built in, but as I'm about to explain, you really only need be concerned with one of them. Now, what follows are a few brief notes relating to the way I've become accustomed to using this tool. Others may have a different methodology, a better one even, but this is what's worked for me so far in my own effort to keep things as simple and basic as possible:

First, let's focus on cleaning mods or, learning the basic technique for cleaning a plugin file (mod). Before we get started there's something you ought to know. It has been strongly recommended by smart people NOT to use the "JUST FIX IT!" button (however tempting it may be) since the general consensus on Merged_Dialogs is

that they cause more problems than they fix. So, learn to ignore that and you'll do fine. Alright, now to set up the basic options. You should only need to do this once, after which all other uses will become customary.



1. Click the Options button and check the following (you should only need to do this once)

- Retain file time, when cleaning
- Ignore tribunal.esm
- Ignore bloodmoon.esm
- Restricted dialog cleaning
- Restricted cell cleaning
- Do not report mergeable conflicts

BEFORE YOU PROCEED TO STEP 2: Always pay attention to each mod's ReadMe for 'Do Not Clean' warnings. *There are some mods out there that should not be cleaned.* If you've accidentally done this already there's no need to panic, just discard the "cleaned" version, which should appear as a duplicate with the word "Clean_" in front of it. Most mods are safe for cleaning so you won't see this often. But some, particularly dialog intensive ones, aren't safe to clean. Mod creators seem to be pretty good about letting you know.

2. Clean recently installed mods using the option "Clean ESP/ESM files." Cleaning can be done individually or in bulk. When and if a CLEAN version of a mod results from this process start using *it* instead of the original.

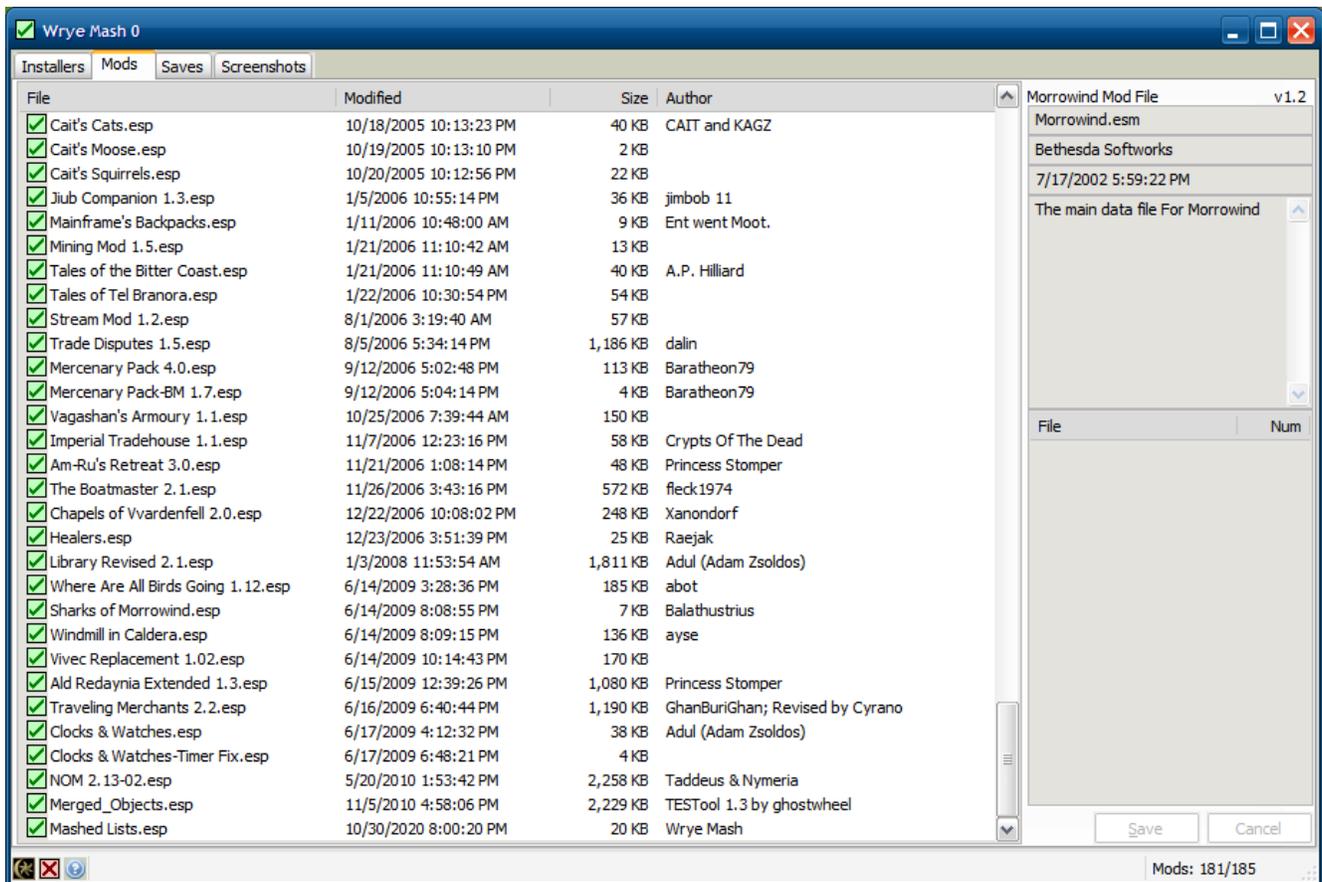
3. Activate the mods you're planning to use with "Manage active plugins"

4. Create a new Merged_Objects esp with "Merge Objects for active plugins." Do this whenever mods are added or removed, especially if they're large mods that add (or have added) a lot of content.

5. Go back to "Manage active plugins" and make sure Merged_Objects is checked. Close TES Tool and you're ready to move on to Wrye Mash

There it is. Basic usage notes for TES Tool. Is there a better way? Did I miss something? Let me know. A very *big Thanks to ghostwheel for this legendary (and yet still very useful) tool.*

Wrye Mash – Another utility that, by now, has probably become ubiquitous. The two main things an average user will use Wrye Mash for is creating a Merged Leveled List (called a “Mashed List”) and cleaning Save files. Trust me when I say both of these are essential. Note: The version I'm using here is 0.84. Also, Wrye Mash is notoriously difficult to set up. Try not to let that dissuade you. Rather, print out the installation instructions and take it slow - it's worth it. With the program up and running we're ready to create our first *Mashed List*. Now, in order to do this you will need to dig through your file folders to retrieve the *Mashed List* esp. Navigate to the Wrye Mash “Extras” folder. Depending on where you installed it it'll be under Mopy > Extras. Inside that folder is an esp file called Mashed List. Copy that esp into your Data Files folder. Now start Wrye Mash. When you find the Mashed List esp in the list of mods the first thing you need to do is ensure it's at the end of the load order. If it isn't already then simply right-click the esp and select File > Redate. It should automatically change it to the current date.



At this point you're ready to perform some basic but essential maintenance on your mod order and Save file. Here's the basic process I recommend every time you install or uninstall a mod:

1. Open Wrye Mash and make sure the Mashed List mod is checked. *You should also have a Merged_Objects in here by now from TES Tool (see above)*. Next, right-click the Mashed List file and select Import > Merged Lists. Depending on how many mods you have this could take a minute, but once it's done it'll display the results of the merging process. Close that.
2. Now you just need to update your save file. Click the Saves tab then select the save file you plan to use. Notice the small list generated in the bottom right corner. Click anywhere on that list and then press the Save button. In a few seconds and you should be good to go.

There is of course much more maintenance that can be done with this tool but these are just the basic things most average mod users will want to do. It may sound a little complicated at first, but believe me once you get in the habit of doing this it becomes almost second nature, and comes in very handy when you start playtesting a lot of mods...which brings me to another point. Every once in a while, after installing/uninstalling a lot of mods for instance, you'll want to do a little more than the average cleaning described above. In this case (and you should be doing this anyway) make a backup of your save file somewhere. Then perform the steps described above followed by these additional measures:

1. With your Save file highlighted right-click on the small "File" column header in the bottom right corner, and select *Sync to Load List*. Then click Save. What you've just done here is synced your save file to your current Mod List, an important preparation for the next step.
2. Now you're going to "repair" your save file. Right-click on the save file itself and select Repair All. This part may take a few minutes depending on how many mods you're running. After it's done it'll bring up a report of what was fixed. *By the way, if this happens to produce undesirable results it can be undone. See Wrye's readme for further information.*

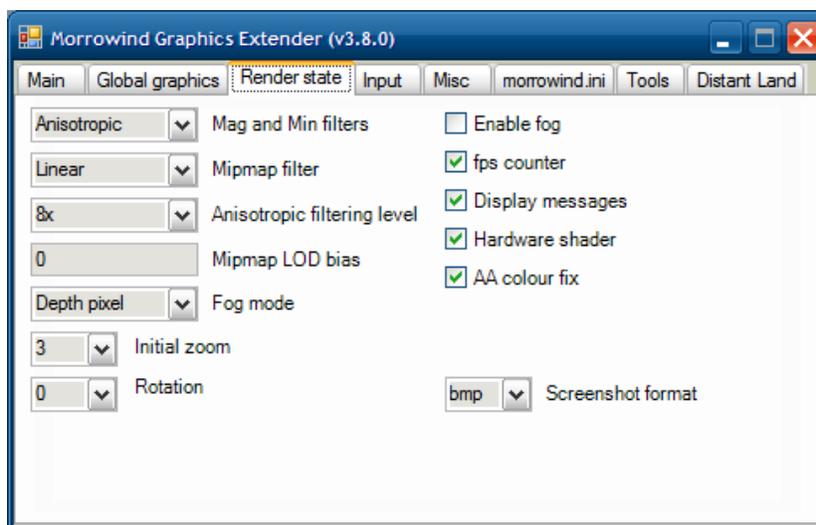
What you've just done with these two steps is basically an extended "cleaning" of your save file that accounts for major additions & removals of mods. And as I stated before it doesn't always need to be done, just every so often; if you start noticing a lot of "doubling" for instance.

For all other Wrye Mash uses (and there are many) nothing beats the original documentation. Considering just how powerful this program is, or depending on how curious you are, you may find it worth the time to learn about some of the other features built into this impressive program. And, if you run into trouble Wrye himself can usually be reached via the Elder Scrolls forums, or his webpage. *My personal Thanks to Wrye for this.*

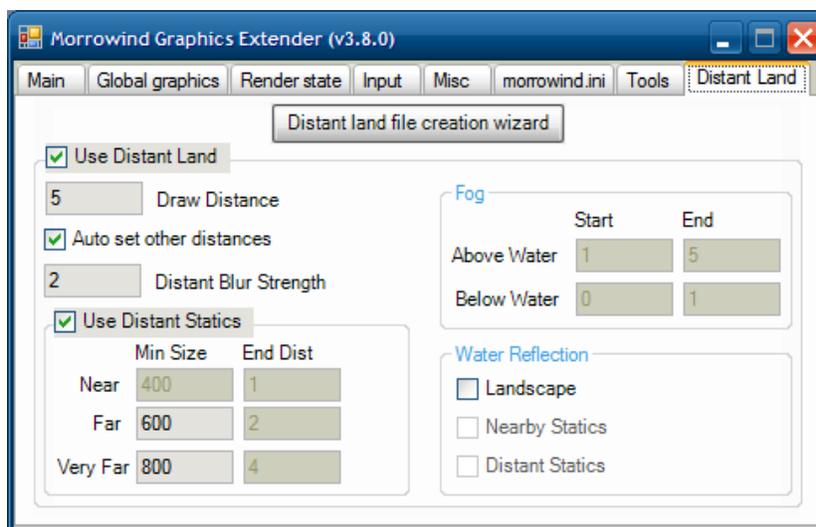
TESPCD - Stands for The Elder Scrolls Plugin Conflict Detector; and just as the name says it helps with tracking down conflicts between mods. To be honest this one's really more for power users as most issues are resolved behind the scenes automatically if you use TES Tool in conjunction with Wrye Mash. But, none-the-less there may come a day when you really want to start tracking down problems on your own. I did find this handy myself when a particular script kept giving me problems. You can usually discover these error messages in two places; the first time will show up as a warning dialog during the loading screen. After you exit the game the same message will appear in a text file called "Warnings," which is located in your main Morrowind directory. Inside the warning message was the exact name of the script that was giving me trouble. So I opened up TESPCD and ran a search for that script against my list of installed plugins. Almost immediately it brought up the mod that was giving me problems. *A great little tool by Ely VanReen Soto.*

(No Screenshot)

Morrowind Graphics Extender – One of the most impressive external utilities to have emerged from the modding community has got to be MGE. This reaction is due in no small part I'm sure to the visual impact it has on the game, especially when you've been playing it for years using the solely the original game engine. This isn't to say it's the most impressive utility from a programming standpoint as I wouldn't be qualified to make that assessment. But I can say that the results are immediate and fairly profound. What's the downside? MGE can be somewhat daunting the first time you set out to configure it. But really, it's not as bad as it appears at first. In fact, it even comes with default settings that (if left alone) should provide a considerable upgrade to the games visuals – especially if used in conjunction with the *Distant Land* feature.



That is actually one of the key things to understand when using MGE, and something I suspect a lot of people miss out on for failing to understand. Even with all the tabs carefully filled out, including having Distant Land checked...



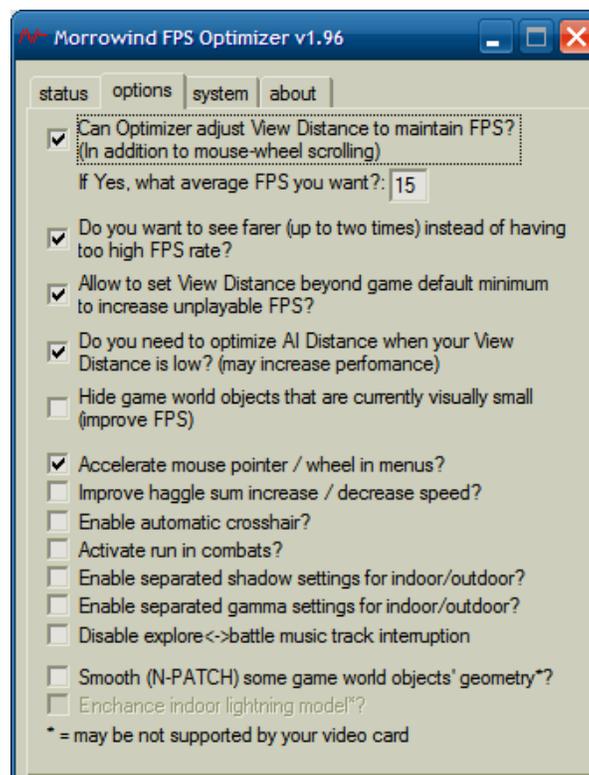
...It will not actually work (be utilized in-game) unless Distant Land 'statistics' are first created using the *Distant land file creation wizard* (note the button at the top of the tab page). So basically, there are a couple of simple ways to approach this utility. Leave everything at the default setting, and create Distant Land files using the wizard. Or spend the time carefully customizing your settings in each tab, and then create Distant Land files using the wizard. All settings are saved when you close the program. As usual, I can't emphasize enough the value in reading the included documentation, but here are a few useful tips I've picked up along the way:

1. In order for MGE to kick in Morrowind must be launched directly from the exe. Shortcuts, unfortunately, are not supported in version 3.8.
2. Changing screen resolution, alt-tabbing or performing any action that loses and recreates the direct 3d device will cause weird behavior and possible CTDs (Crashes to Desktop).
3. The MGE Fog option only affects near fog. Fog drawn by Distant Land (beyond the native max view distance of 72) uses a different technique and can be controlled on the Distant Land tab.

By the way, I'm not sure if *Distant land file creation* needs to be redone each time the Draw Distance value is changed, but do know that it's recommended to run the wizard after adding or removing land mass mods. My thinking is to run it whenever values are changed.

My personal Thanks to the entire MGE team for a job well done.

FPS Optimizer – In the early days Morrowind had difficulty rendering large, busy outdoor areas, especially if you had an average computer and were running a lot of mods. Then along came FPS Optimizer to help with that problem, getting our frame rates back up to speed. What this tiny, unobtrusive utility does is run quietly in the background (while the game is running) automatically adjusting the AI & View distance to suit a predetermined FPS threshold. Translation: It adjusts the view distance (using a fog effect) in order to keep the game running smoothly, which is a nice alternative to playing Morrowind *Slideshow Edition*. If performance, rather than picture perfect scenery, is important to you then you'll find it worth the effort to spend some time tweaking around with this until you find the settings you're comfortable with. In the meantime, if you just want an example of one configuration here are the settings I've had success with in the past.



Now it would seem that one would need to choose between either MGE or FPS Optimizer, but I have heard that they are (in fact) compatible. Correction: MGE is only compatible with version 1.96 of FPS Optimizer but not any successive version (that I'm aware of). How these two programs are compatible or why anyone would want to run them concurrently is something I haven't quite figured out. It seems like the selection criteria would be mostly based on the strength of the computer running the game. An older computer or a laptop might do better with FPS Optimizer whereas a more powerful computer should do well with MGE. But, as usual, I'm sure there are smarter (more informed) people who can elucidate this further. In any case, I used FPS Optimizer for quite a long time with my old computer and with great results. It may be old but rest assured it gets the job done. *A huge thanks to Alexander Stasenka for this great Morrowind utility.*