

# Merge Plugins Standalone by Mator

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# Introduction

# What is Merge Plugins?

Merge Plugins is a Windows application coded in Delphi (object-oriented Pascal). Merge Plugins automates the process of combining multiple Bethesda Plugin/Master Files (**.esp** and **.esm**) into a single file. The program interfaces with plugins through the xEdit framework, and supports plugin files from Skyrim, Oblivion, Fallout: New Vegas, and Fallout 3.

Merge Plugins doesn't just combine the contents of plugin files, it also handles asset files associated with those plugin files, automatically copying, renaming, and rebuilding assets as necessary to create a mod that functions as the original mods did prior to merging. It also provides a dictionary file built from reports submitted by users as a guide to the tool's effectiveness at merging various plugin files. Overall, Merge Plugins provides a powerful interface by which merges can be created, tracked, and rebuilt.

# Why should I use Merge Plugins?

### What are the benefits of merging plugins?

- You can (indirectly) pass the 255 plugin file limit
- Increased game stability
- A better organized, easier to manage load order

### What are the alternatives?

#### Merge Plugins xEdit Script

The precursor to Merge Plugins Standalone. It's somewhat dated and doesn't provide the power, speed, flexibility, or features of Merge Plugins Standalone.

#### • Skyrim Mod Combiner (SMC)

Only works for texture mods, and doesn't combine ESP files. Fulfills a very different use case compared to Merge Plugins Standalone.

#### Manual merging

You can use TES5Edit to manually merge mods. This will not handle asset files for you, so you'll have to do all of that by hand after merging. While this can be educational, it will limit you to merging only certain types of mods (e.g. armor and weapon mods) before requiring an unfeasible amount of manual file copying, renaming, and modification.

### **Documentation Overview**

This document is divided into 5 major sections:

### 1. Comparison

Covers the differences between Merge Plugins Standalone and the Merge Plugins xEdit Script.

#### 2. Guide to the GUI

Explains the graphical user interface of Merge Plugins Standalone.

### 3. General Reference

Provides some general information on coloring or rating that is reflected in multiple parts of the Merge Plugins GUI.

### 4. Tutorials

Teaches you how to use different parts of the application with step-by-step instructions.

#### 5. **Community**

Specifies what you can do to contribute to the Merge Plugins community, and your relationship with Merge Plugins as a user.

# Comparison

# **Removed Features**

Several features were present in the Merge Plugins script, but are no longer present in Merge Plugins Standalone. These features are listed below:

| Feature   | Reason   |
|---|--|
| Removing plugins from a merged plugin             | This can't be done properly due to issues with the Rule of One and conflicting asset files. Rather than providing a feature that will randomly not work, I've removed this feature. If you want to remove a plugin from a merge, just rebuild the merge.   |
| Merging into existing merges and combining merges | Due to complexities in overrides and conflicting asset files, using an existing merged plugin in a merge can't be done properly in most circumstances. Additionally, allowing it creates issues with managed merges and creates a large increase in complexity. To merge a merged plugin you will have make a secondary merge profile. |
| Renumber none                                     | There's no reason for you to use this with the standalone version of Merge Plugins. The standalone program reloads the plugins so this feature has no use case and would only create conflicting FormIDs and broken merged plugins.  |
| Two-pass copying                                  | This used to be necessary a long time ago due to NAVI/NAVM copying issues, but is no longer necessary. It provides no quantifiable benefits, and has thus been removed.  |

# **New Features**

Merge Plugins Standalone provides a large number of new features that greatly enhance the experience of merging plugins and managing merges. New features are listed below:

| Feature                   | Description   |
|---------------------------|---|
| Script fragment handling  | Script fragments are small scripts that are created by the game to assist with Quests, Scenes, and Dialog Topics. These script fragments have FormID specific filenames, and thus need to be renamed and recompiled when the FormID of the record they're associated with changes. Merge Plugins Standalone does this if you set up the Papyrus Compiler and Champollion Decompiler integrations. |
| INI file handling         | Some ESP files have INI files associated with them. These INI files are loaded by the game based on their filename. In Merge Plugins Standalone, INI files are renamed and combined so their functionality is retained after merging.   |
| Merged BSA creation       | Merge Plugins Standalone can create a merged BSA file for your merges. This is done through the BSAOpt integration.   |
| Toggleable asset handling | In Merge Plugins Standalone you can toggle what asset copying features you want to make use of. This allows users to debug merges more effectively.   |
| Speed increase            | Because Merge Plugins Standalone is a compiled program, rather than an interpreted script, it runs a lot faster. You will now be able to build merges faster than ever before.  |
| Merge tracking            | Merges created with Merge Plugins Standalone will be tracked from within the program. When a plugin that is in a merge changes (e.g. is updated), the merge it is associated with will flag itself as needing to be rebuilt.  |

| Easy merge rebuilding         | You can now rebuild a merge with the click of a button. Combined with merge tracking, this makes for a far more efficient workflow around merging plugins.  |
|-------------------------------|---|
| Integrated dictionary updates | With the script, you had to update the dictionary through the Merge Plugins Report Client Java application. Now, you will be notified of dictionary updates directly from the program and will be able to update the dictionary without the hassle of having to start another application.  |
| Integrated program updates    | Merge Plugins Standalone can be updated easily. You won't need to redownload it from the Nexus to update it, you will be informed of updates from within the program itself, and can update the program with a click of a button.   |
| Integrated reporting          | With the script, reports had to be generated as text files that were then read by a separate Java application which sent them to a server to be combined into a dictionary file. With Merge Plugins Standalone this functionality has been integrated into the main program, so you don't need to start a separate program to submit reports anymore. |
| Plugin error tracking         | Once you check a plugin for errors in Merge Plugins Standalone, its errors will be saved, and then reloaded the next time you use the program. These saved errors are linked to the CRC32 hash of the plugin, so when the plugin is updated you'll have to check it for errors again (it may have more/fewer errors).                                 |
| Multiple languages            | With an easily extensible language system, the program can now be easily translated. Several translations have already been made thanks to some volunteer translators.  |
| Statistics tracking           | Merge Plugins Standalone will locally track statistics relating to merging. Now you can keep track of how many merges you've build, how many plugins you've checked for errors, how many times you've started the program, etc.   |

# Guide to the GUI

### **Select Profile Window**



Illustration 1: The select profile window.

The Select Profile Window displays when the program first starts. From here you can create and manage your merge profiles. To start the application, select a valid profile and click OK. You can bypass the Select Profile window by using the -profile target line parameter.

### Automatic Game Detection

The profile window will automatically detect the games you have installed from the registry. Assuming you performed a standard or steam game installation, the program should detect any supported games you have installed and create profiles for them when you first run it. Automatic detection will only occur if you have no profiles saved in the *profiles* folder.

### New Profile Panel

This is a special panel which will always be below your other profiles. You can click it at any time to create a new profile.

# Profile Panel

| Component             | Description  |
|-----------------------|--|
| Game icon             | An icon corresponding to the currently selected game mode. If the profile is valid, you can click the game icon or anywhere else on the panel to select the profile. |
| Profile name text box | Here you can enter a profile name, which will be used to identify the profile.   |
| Game mode drop-down   | A drop down where you can specify the game mode you want the profile to be for. The options are: Skyrim, Oblivion, Fallout New Vegas, and Fallout 3.                 |
| Game path text box    | The path to the folder where the game you have selected is installed. You can use the browse button to browse for this folder.                                       |
| Browse button         | Click this button to browse for your game path.  |
| Delete button         | Click this button to delete the profile. You will be asked to confirm this action to make sure you didn't accidentally click delete.                                 |

# Profile States

| State    | Color       | Description   |
|----------|-------------|---|
| Invalid  | Light red   | If the profile name or game path is invalid, the background color of the profile panel will turn light red. You can't select an invalid profile.  |
| Valid    | Light green | If the profile name and game path are valid, the background color of the profile panel will turn light green. You can select valid profiles.  |
| Selected | Light blue  | If you click a valid profile, its background color will turn light blue. This indicates the profile is selected. Once you've selected a profile, you can click OK to start Merge Plugins with that profile. |

# Profile Popup Menu

Right-click in the scrollbox to access the profile popup menu.

| Name           | Action                                    | Enabled                                  |
|----------------|---|--|
| New profile    | Creates a new merge profile.              | Always.                                  |
| Delete profile | Deletes the profile you right clicked on. | If you right clicked on a merge profile. |

# **Plugin Selection Window**

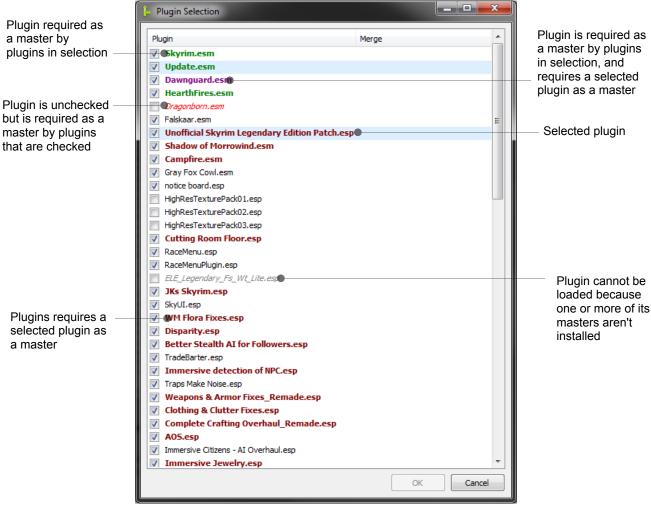


Illustration 2: The plugin selection window.

The plugin selection window appears after you've selected a profile, and allows you to specify what plugins you want to load.

# Plugins Selection Actions

| Action | Description   | Availability   |
|--------|---|--|
| ОК     | Starts the application and loads the checked plugins. | If no unchecked plugin is required by checked plugins as a master, as indicated by <i>red italic</i> font. |
| Enter  | Equivalent to clicking OK.                            | Same as OK.  |
| Space  | Toggles the check box of the selected plugins.        | If one or more plugins are selected.   |
| Cancel | Terminates the application.                           | Always.  |
| Close  | Terminates the application.                           | Always.  |

# Plugin Selection Popup Menu

Right click in the list view to access the "Plugin Selection Popup Menu".

| Name        | Action  |
|-------------|---|
| Check all   | Checks all plugins in the list except ones that cannot be loaded.                   |
| Uncheck all | Unchecks all plugins in the list.   |
| Toggle all  | Toggles the selection of all plugins in the list except ones that cannot be loaded. |

# Plugin Selection Styles

| Style                   | Meaning  |  |
|-------------------------|--|--|
| Light blue background   | The plugin is selected.  |  |
| Bold green font         | The plugin is required as a master by a selected plugin.   |  |
| <b>Bold maroon font</b> | The plugin requires a selected plugin as a master.   |  |
| Bold magenta font       | The plugin is required as a master by a selected plugin, and requires a selected plugin as a master.   |  |
| Gray italic font        | The plugin cannot be loaded because one or more of its masters aren't installed. That is, its masters were not found in the data directory.                                      |  |
| Red italic font         | The plugin is unchecked but is required as a master by one or plugins that are checked. You will need to check this plugin or uncheck the plugins that depend on it to continue. |  |

# **Splash Window**



Illustration 3: The splash window.

The splash will be displayed after a merge profile has been chosen. The splash shows the progress of automatic updates as well as the loading of plugins, merges, and plugin information. It also displays the version of the application. The splash should close automatically and open the main application window after 10-30 seconds, depending on the size of your load order and your system specs.

# Automatic Updates

If you have enabled automatic updates in your settings, the application will attempt to connect to the server and get any dictionary or program updates that are available. If there is a program update, the application will restart, taking you back to the profile screen.

# **Main Application Window**

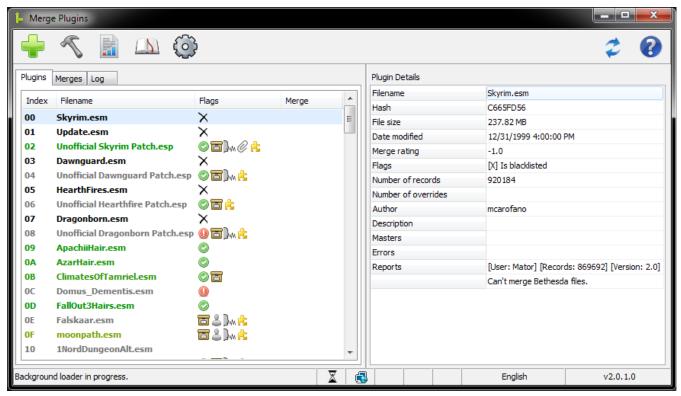


Illustration 4: The main application window (at small window size so you can see it).

The Main Application Window is the location from which you can interface with all of the functionality offered by Merge Plugins, and is the window that is shown after you've selected a profile and the plugins you want to load.

### Quick Bar

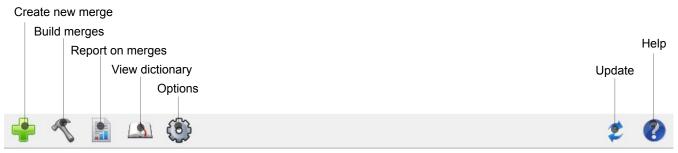


Illustration 5: The quick bar.

The Quick Bar provides multiple buttons to quickly access various functionalities in the application.

#### **Create New Merge**

You can click the Create New Merge button at any time to create a new merge. The button will

automatically bring up the <u>Edit Merge Window</u> for the new merge so you can specify the merge's name, filename, and options.

### **Build Merges**

Clicking the Build Merges button will build any merges that are ready to be built or rebuilt. The button will be disabled if the background loader is not completed or if there are no merges to build. See <u>Merge Statuses</u> if you want to force a rebuild of your merges.

### **Report on Merges**

Clicking the Report on Merges button will bring up the <u>Report Window</u>. From there, the user can create and submit reports on all plugins in merges that have been built successfully, excluding plugins the user has already submitted reports for.

### **View Dictionary**

Clicking the View Dictionary button will bring up the <u>View Dictionary Window</u> with no filters set.

### **Options**

Clicking the Options button will bring up the Options Window.

### **Update**

Clicking the Update button will update the dictionary if any update is available. If an application update is available the <u>Changelog Window</u> will be shown, where you can see the changes between your current version and the most up-to-date version and choose to download and install the new version. Hovering over the "Update" button will display a hint specifying what updates are available.

#### Help

Clicking the Help button will change the mouse cursor to a pointer with a question mark. You can then click on any component on the <u>Main Application Window</u> to access the help files on it. You can also press F1 from any window that's a part of the application to access the same functionality.

# Plugins Tab

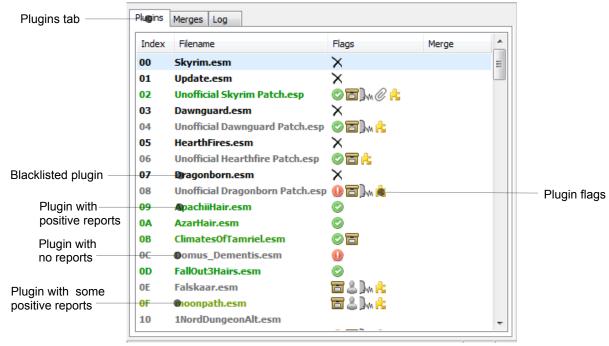


Illustration 6: The Plugins Tab and Plugins List View.

The Plugins Tab displays an ordered list of loaded plugins. Unless simple plugins list is enabled, the plugins will be colored based on average rating reported by users. See <u>Rating Colors</u> for a table of colors and their meaning.

### **Plugin Fields**

| Name     | Description  |  |
|----------|--|--|
| Index    | The hexadecimal load-order index of the plugin.  |  |
| Filename | The filename of the plugin.  |  |
| Flags    | The flags associated with the plugin. If you have simple plugins list enabled, flags will be represented by a single character, else flags will be displayed as icons. |  |
| Merge    | The merge that the plugin is associated with.  |  |

# Plugin Flags

| Icon     | Character | Description            |  |
|----------|-----------|------------------------|--|
| ×        | X         | Is blacklisted         |  |
| •        | Е         | Has errors             |  |
| <u> </u> | R         | Errors ignored         |  |
| <b>②</b> | N         | Has no errors          |  |
| =        | А         | Has a BSA file         |  |
| &        | G         | Has FaceGenData        |  |
| ₽₩       | V         | Has voice data         |  |
| •        | Т         | Has MCM translations   |  |
| 0        | I         | Has an INI file        |  |
| £        | F         | Has script fragments   |  |
|          | D         | Disallow merging       |  |
| C\$      | S         | Scripts reference self |  |

# **Plugins Popup Menu**

Right-clicking on the plugins list will bring up a popup menu with various options. Below is a listing of these options, what they do, and under what conditions they're enabled.

| Name                                 | Action   | Enabled  |
|--------------------------------------|--|--|
| Add to merge  → <new merge=""></new> | Creates a new merge and adds the selected plugins to it.                 | If no selected plugin is blacklisted, marked as do not merge, or in a merge.   |
| Add to merge  → <merge></merge>      | Adds the selected plugins to the specified merge.                        | If no selected plugin is blacklisted, marked as do not merge, or in a merge.   |
| Remove from merge                    | Removes the selected plugins from any merge they're in.                  | If all selected plugins are in a merge.  |
| Disallow merging                     | Marks selected plugins with the Do Not Merge flag.                       | If all selected plugins are not blacklisted or in a merge.   |
| Allow merging                        | Unsets the Do Not Merge flag on selected plugins.                        | If all selected plugins have the do not merge flag set.  |
| Report on plugin                     | Brings up the Report Window for the selected plugins.                    | If no selected plugin is blacklisted.  |
| Errors →<br>Check for errors         | Starts an error-checking task for the selected plugins.                  | If the background loader is done, no selected plugin is blacklisted, and no selected plugin has been checked for errors.       |
| Errors → Fix errors                  | Starts an error fixing task for the selected plugins.                    | If the background loader is done, no selected plugin is blacklisted, and all selected plugins have errors.                     |
| Errors → Ignore errors               | Marks selected plugins with the Errors Ignored flag if they have errors. | If no selected plugin is blacklisted, no selected plugin hasn't been checked for errors, and all selected plugins have errors. |
| Errors → Unignore errors             | Unsets the errors ignored flag on selected plugins.                      | If all selected plugins have the ignore errors flags set.  |
| Open plugin location                 | Opens the location of each selected plugin file in explorer.             | Always.  |

# **Plugin Details**

When you select a plugin, its details will be populated in the Details Pane. Below is a listing of these details, with descriptions.

| Name                | Description  |  |
|---------------------|--|--|
| Filename            | The filename of the plugin.  |  |
| Hash                | The CRC32 hash of the plugin file. This is used to track when the plugin is updated.                           |  |
| File size           | The file size of the plugin.   |  |
| Date modified       | The date the plugin was last modified.   |  |
| Merge rating        | The plugin's average rating as reported by users, between 0.0 and 4.0. See Merge Ratings for more information. |  |
| Flags               | A list of the flag characters associated with the flags on the plugin. See Plugin Flags for more information.  |  |
| Number of records   | The number of records in the plugin.   |  |
| Number of overrides | The number of override records in the plugin.  |  |
| Author              | The author of the plugin.  |  |
| Description         | The description of the plugin.   |  |
| Masters             | The master files of the plugin.  |  |
| Errors              | The errors in the plugin. Will be "None" if no errors were found in the plugin.                                |  |
| Reports             | A list of the user reports submitted on the plugin.  |  |

# Merges Tab

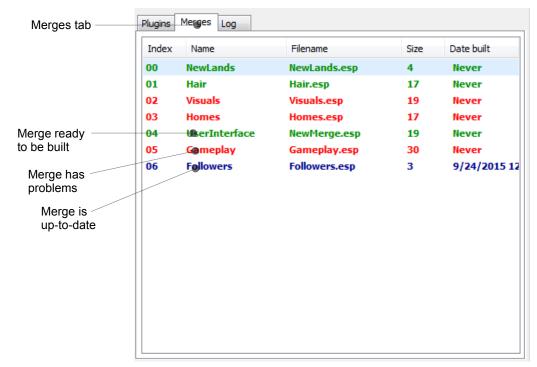


Illustration 7: The merges tab.

The Merges Tab displays a list of merges managed with the program. Merges are colored based on their status. Also see <u>Merge Statuses</u>.

### **Merge Fields**

| Name       | Description  |  |
|------------|--|--|
| Index      | The build order of the merge.                          |  |
| Name       | The name of the merge.                                 |  |
| Filename   | The filename of the plugin file created for the merge. |  |
| Size       | The size of the merge in number of plugins.            |  |
| Date built | The date when the merge was last built.                |  |

# **Merges Popup Menu**

Right-clicking on the merges list will bring up a popup menu with various options. Below is a listing of these options, what they do, and under what conditions they're enabled.

| Name                               | Action   | Enabled  |
|------------------------------------|--|--|
| Create new merge                   | Creates a new merge and opens the Edit Merge Window for it.  | Always.  |
| Edit merge                         | Opens the Edit Merge Window for each selected merge.   | If a merge is selected.  |
| Delete merge                       | Deletes the selected merges.   | If a merge is selected.  |
| Plugins → Remove plugins           | Removes plugins that have errors or that aren't loaded from the merge.   | If the merge has unloaded plugins or plugins with errors.  |
| Plugins → Check plugins for errors | Creates an error-checking task for the plugins in selected merges that haven't been checked for errors.  | If the background loader is done, a merge is selected, and one or more plugins in the selected merges need to be checked for errors. |
| Plugins → Fix errors in plugins    | Creates an error-fixing task for the plugins in selected merges that have errors.  | If one or more selected merges has a plugin with errors in it.   |
| Plugins → Report on plugins        | Opens the Report Window with all plugins in selected merges.   | If one or more selected merges is up to date.  |
| Build merge                        | Builds the selected merges.  | If a selected merge is ready to be built/rebuilt.  |
| Open in explorer                   | Opens the folder associated with the merge in explorer.  | If a merge is selected.  |
| Toggle rebuild status              | Switches merges from the "Up to date" status to "Ready to be rebuilt [forced]" and from the "Ready to be rebuilt" status to "Up to date [forced]". | If one or more selected merges is up to date or ready to be rebuilt.   |

# **Merge Details**

When you select a merge, its details will be populated in the Details Panel. Below is a listing of these details, with descriptions.

| Name         | Description   |  |
|--------------|---|--|
| Status       | The status of the merge. See Merge Statuses.  |  |
| Merge name   | The name of the merge.  |  |
| Filename     | The filename of the merge.  |  |
| Plugin count | The number of plugins in the merge.   |  |
| Date built   | The date the merge was last built.  |  |
| Plugins      | A list of the plugins in the merge.   |  |
| Merge method | The merge method that will be used when building the merge.   |  |
| Renumbering  | The renumbering method that will be used when building the merge.   |  |
| Files        | A list of the files associated with the merge. If there are over 250 files the list will not be displayed.                        |  |
| Fails        | A list of the failures that occurred when last building the merge. If there are over 250 failures the list will not be displayed. |  |

# Log Tab

The Log Tab displays enabled log messages that have occurred during program execution. You can change the colors of log messages from the <u>Options Window</u>. You can filter what log messages are displayed from the Log Popup Menu.

**Note:** Log messages are displayed as a single string. The log message template string can be specified from the <u>Options Window</u>.

### Log Fields

| Name    | Description   |  |
|---------|---|--|
| Time    | The time when the log message was created.  |  |
| AppTime | The application time when the log message was created. (00:00:00 is when the application is started). |  |
| Group   | The group the log message is associated with. See Log Groups.   |  |
| Label   | The label the log message is associated with. See Log Labels.   |  |
| Text    | The text of the log message.  |  |

### Log Popup Menu

Right-clicking on the log will bring up a popup menu with various options. Below is a listing of these options, what they do, and under what conditions they're enabled.

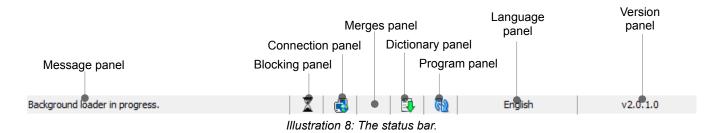
| Name   | Action   | Enabled                                   |
|--|--|---|
| Filter group  → <toggle> <group></group></toggle>                  | Toggles visibility of log messages from the specified group.                   | Always                                    |
| Filter label  → <toggle> <group>, <label></label></group></toggle> | Toggles visibility of log messages from the specified group-label combination. | Always                                    |
| Copy to clipboard  | Copies selected log messages to the clipboard.                                 | If one or more log messages are selected. |
| <toggle> auto scroll</toggle>                                      | Toggles automatic scrolling of the log.  | Always                                    |
| Save and clear   | Saves the log to a file and then clears it.                                    | Always                                    |

# **Application Details**

Application details appear in the Details Pane when you switch to the Log Tab. Below is a listing of these details, with descriptions.

| Name                       | Description   |  |
|----------------------------|---|--|
| Application                | The name of the running application, "Merge Plugins".   |  |
| Author                     | The author of the running application, "matortheeternal".   |  |
| Version                    | The version of the application you're using.  |  |
| Date built                 | The date when the version of the application you're using was built.  |  |
| Game mode                  | The game mode you're currently using the application in.  |  |
| Language                   | The current language mode you're using the application in.  |  |
| Times run                  | The number of times you've run the application.   |  |
| Merges built               | The number of merges you've built.  |  |
| Plugins checked for errors | The number of plugins you've checked for errors.  |  |
| Plugins merged             | The number of unique plugins you've merged.   |  |
| Reports submitted          | The number of reports you've submitted.   |  |
| GitHub Repo                | The GitHub repositoriy for the Merge Plugins project. You can go here to submit issues, track development, and download dev builds. |  |
| Nexus Mods Page            | The Nexus Mods page for Merge Plugins.  |  |
| API Credits                | Credits for APIs used in Merge Plugins.   |  |
| xEdit Version              | The version of xEdit that Merge Plugins is using.   |  |
| xEdit Credits              | Credits for the creators of xEdit.  |  |
| Testers                    | List of beta testers who contributed to the development of Merge Plugins.   |  |
| Translators                | List of translators who have translated Merge Plugins into different languages.   |  |

# Status Bar



The Status Bar provides quick reference to the status of various aspects of the Merge Plugins program.

### **Status Panels**

| Name             | Icons | Description  |  |
|------------------|-------|--|--|
| Message panel    | N/A   | Displays a message regarding overall program status.   |  |
| Blocking panel   | X     | Displays its icon if a blocking background operation is in progress (e.g. background loader, checking for errors, or merging plugins). |  |
| Connection panel | € €   | Displays an icon indicating whether or not the program is connected to the Merge Plugins server.                                       |  |
| Merges panel     | ~     | Displays its icon if there are merges that are ready to be rebuilt.  |  |
| Dictionary panel | 3     | Displays its icon if a dictionary update is available.   |  |
| Program panel    | 62    | Displays its icon if a program update is available.  |  |
| Language panel   | N/A   | Displays the current language mode.  |  |
| Version panel    | N/A   | Displays the program's version.  |  |

# **View Dictionary Window**

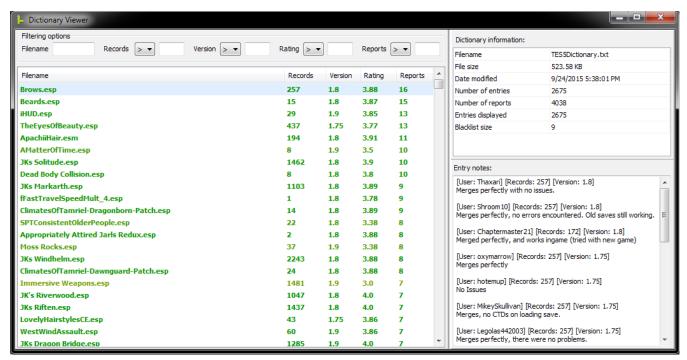


Illustration 9: The view dictionary window.

The View Dictionary Window displays a list of all dictionary entries in the dictionary file for the current game mode. The window supports full filtering and sorting functionality.

# Filtering and Sorting

You can sort by any single column by clicking on its header. You can reverse the order of sorting from ascending to descending and vice versa by clicking on the column header a second time.

Filtering options are provided in a group above the entries list. After entering your filters, press Enter in any of the filtering text fields to filter the entries list.

| Field    | Modes                             | Filtering functionality  |
|----------|-----------------------------------|--|
| Filename | Contains                          | Selects entries which have filenames that contain the entered text.                      |
| Records  | Greater than, less than, equal to | Selects entries which have a number of records <mode> the entered integer number.</mode> |
| Version  | Greater than, less than, equal to | Selects entries which have a version <mode> the entered floating point number.</mode>    |
| Rating   | Greater than, less than, equal to | Selects entries which have a rating <mode> the entered floating point number.</mode>     |
| Reports  | Greater than, less than, equal to | Selects entries which have a number of reports <mode> the entered integer number.</mode> |

# Entry Fields

| Name     | Description  |
|----------|--|
| Filename | The filename of the plugin to which the dictionary entry corresponds.  |
| Records  | The largest reported number of records in the plugin the dictionary entry corresponds to.                                    |
| Version  | The latest version of Merge Plugins that has had a report submitted on the plugin to which the dictionary entry corresponds. |
| Rating   | The average rating of all reports submitted on the plugin to which the dictionary entry corresponds.                         |
| Reports  | The number of reports associated with the dictionary entry.  |

# Dictionary Information

The Dictionary Information panel lists various stats relating to the dictionary file being viewed.

| Name              | Description  |
|-------------------|--|
| Filename          | The filename of the dictionary file being viewed.                                  |
| File size         | The file size of the dictionary file being viewed.                                 |
| Date modified     | The date when the dictionary was last modified (updated).                          |
| Number of entries | The number of entries in the dictionary file.                                      |
| Number of reports | The number of reports in the dictionary file.                                      |
| Entries displayed | The number of entries currently being displayed due to filtering.                  |
| Blacklist size    | The number of plugins in the dictionary file that have been marked as blacklisted. |

# **Entry Notes**

The Entry Notes panel displays the user notes associated with the selected entry. User notes have a header associated with them which displays information relating to the particular report the notes are associated with. Depending on whether or not the report was submitted before before Merge Plugins Standalone's public release, the header will differ.

### Reports submitted with Merge Plugins Standalone:

[User: {{user}}] [Hash: {{hash}}] [Version: {{version}}]

### Reports submitted with the Merge Plugins Report Client:

[User: {{user}}] [Records: {{records}}] [Version: {{version}}]

# **Report Window**



Illustration 10: The report window.

The Report Window is used to create reports on the merge-ability of plugins to be submitted to the Merge Plugins server, where it is later built into the dictionary file.

| Element           | Description   |
|-------------------|---|
| Filename          | The filename of the plugin you're reporting on.   |
| Hash              | The CRC32 hash of the plugin you're reporting on.   |
| Records           | The number of records in the plugin you're reporting on.  |
| Flags             | The flags associated with the plugin you're reporting on, as a string.  |
| Average rating    | The average rating from existing user reports on the plugin you're reporting on.  |
| Number of reports | The number of reports that have already been submitted on the plugin you're reporting on.   |
| View details      | Opens the View Dictionary Window with a filename filter for the plugin you're reporting on.   |
| Rating            | This is a drop-down where you can specify the rating you want to submit for the plugin.   |
| Notes             | Notes on the merge-ability of the plugin for your report. You are required to enter at least 16 characters in the notes field to create a report. |
| Next button       | Proceed to reporting on the next plugin in the reporting task you created. Changes to "Done" when you reach the last plugin.                      |
| Previous button   | Go back to the report on the previous plugin in the reporting task you created.   |

# **Edit Merge Window**

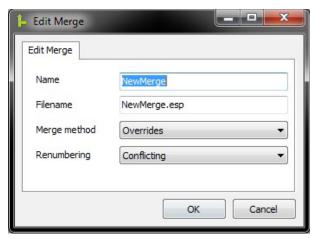


Illustration 11: The edit merge window.

The Edit Merge Window is used to edit the details of a merge.

| Element       | Description   |
|---------------|---|
| Name          | The name of the merge you're editing. This is used for naming the folder the merge will be stored in, and for identifying the merge in the application. The text will turn red and will display a hint if a folder matching the specified name already exists in the merge destination directory. |
| Filename      | The filename of the ESP file that will be produced by the merge. Also used for determining the path of various asset files. The text will turn red and the OK button will be disabled if an ESP of the specified filename is currently loaded in Merge Plugins.                                   |
| Merge method  | The method that will be used when merging the plugins in the merge. Two methods are available: Overrides and New Records.   |
| Renumbering   | The method that will be used when renumbering FormIDs for the merge. Two methods are available: Conflicting and All.  |
| OK button     | Click to save your changes to the merge. Will be disabled if a conflicting filename is entered.   |
| Cancel button | Click to cancel your changes to the merge.  |

# **Options Window**

The Options Window is where you can set options that dictate how the program runs and how merges are executed. You won't need to go here much after initial set up.

#### General Tab

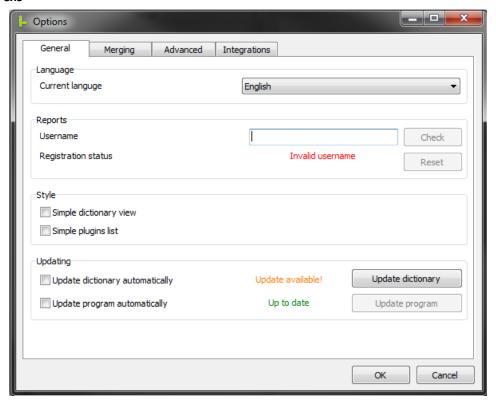


Illustration 12: The General Tab of the Options Window.

#### Language

Here you can set the language to be used by the program. For information on creating translations, see Making a Translation.

### Reports

This group has controls that pertain to the submission of user reports to the backend. If you want to submit reports on plugins you've merged to the backend, you need to register a username.

- 1. Enter a username in the text box. The username must be between 4 and 32 characters long.
- 2. Click the "Check" button to see if the username is available.
- 3. If the username is available, the "Check" button will change to say "Register". Click it to register the username.

### Technical

Whenever you start the program, the program generates a random 32-character long Base64 key. When you register, your key at the time of registering is stored in your settings.ini file and in the registry. This key serves to authenticate you to the server. If you somehow lose this key, you can attempt to reset it by clicking the Reset button. This will only work if your IP address hasn't changed since the key was lost.

If you're planning on reformatting your drive and want to maintain access to your old username, you should save your settings.ini file somewhere where you can access it later (e.g. email, upload to Dropbox, external storage medium, etc.).

### Style

| Element                | Description  |
|------------------------|--|
| Simple dictionary view | Affects the View Dictionary Window. Disables the coloring of dictionary entries.                           |
| Simple plugins list    | Affects the Plugins Tab. Disables the coloring of plugins, and uses flag characters instead of flag icons. |

### **Updating**

| Element                         | Description   |
|---------------------------------|---|
| Update dictionary automatically | If checked, Merge Plugins will check for a dictionary update once initial plugin loading is complete. If an update is available, it will be downloaded automatically.                                       |
| Update program automatically    | If checked, Merge Plugins will check for a program update as soon as the program is started. If an update is found, it will be downloaded and installed automatically, and the program will restart itself. |
| Dictionary status label         | Indicates whether or not a dictionary update is available.  |
| Program status label            | Indicates whether or not a program update is available.   |
| Update dictionary               | If a dictionary update is available, you can click this button to download and install it.  |
| Update program                  | If a program update is available, you can click this button to download and install it. Note: The program will close and restart itself when updated.   |

# Merging Tab

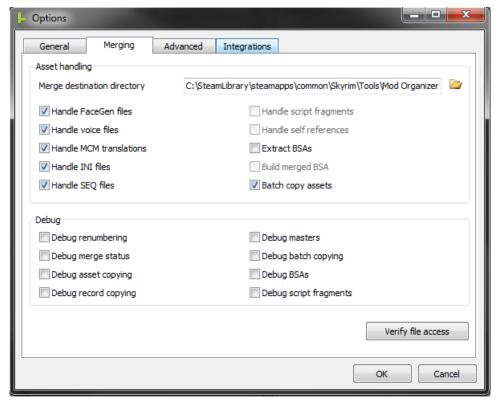


Illustration 13: The Merging Tab of the Options Window.

### **Verify File Access**

You can click the "Verify file access" button to verify that Merge Plugins has the necessary filesystem permissions to function properly. I recommend you verify file access when you first install Merge Plugins and again whenever you change the directories used by Merge Plugins.

# **Asset handling**

| Element                     | Description   |
|-----------------------------|---|
| Merge destination directory | The directory that merges will be created in. Merges will be created in separate folders corresponding to their name. You can click the browse button to specify a folder to use, or enter the path manually.   |
| Handle FaceGenData          | If checked, file-specific FaceGenData will be handled when merging. This means that facegeom and facetint data files that were associated with the plugins you were merging will be copied to a new directory for the merged plugin and renamed if the FormID of the NPC record they are associated with was changed. If not checked, the gray face bug will occur for new NPCs in the merged plugin. |
| Handle voice assets         | If checked, file-specific voice assets will be handled when merging. This means that sound\voice data files that were associated with the plugins you were merging will be copied to a new directory for the merged plugin and renamed if the FormID of the record they are associated with was changed. If not checked, NPCs will lose any custom voicing.   |
| Handle MCM translations     | If checked, MCM translation files for the plugins being merged will be combined into a single MCM translation for the merged plugin. If not checked, some MCMs may become garbled to variable names instead of proper labels.   |
| Handle INI files            | If checked, INI files that were associated with the plugins being merged will be combined into a single INI file for the merged plugin. If not checked, INI files will be ignored during merging.   |
| Handle script fragments     | If checked, Script Fragments that were associated with the plugins being merged that were associated with a record that was renumbered will be recompiled. This option requires setting the papyrus integration up correctly, and will be disabled until you have done so. If not checked, Quests, Scenes, and Dialog Topics that relied on new script fragments may not work correctly.              |
| Extract BSAs                | If checked, BSAs associated with the plugins being merged will be extracted in the merge's data folder. This <b>does not</b> require setting up the BSAOpt integration. This is only necessary if you are not using Mod Organizer, which supports the loading of arbitrarily named BSAs.  |
| Build merged BSA            | If checked, a merged BSA will be created from the contents of all the BSAs associated with plugins that were merged. This option requires setting up the BSAOpt integration, and will disabled until you have done so. This is a nice alternative to Extract BSAs if you're using NMM. Note: BSAs have a maximum file size of 2gb.  |
| Batch copy assets           | If checked, all file-specific and general asset copying operations will be performed through a batch (.bat) script. This is a recommended option, as it is more efficient than copying files through Delphi methods.  |

### Advanced Tab

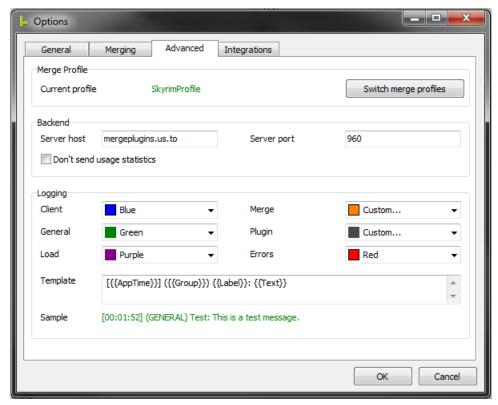


Illustration 14: The Advanced Tab of the Options Window.

### **Merge Profile**

Provides the name of your currently active profile. You can click the "Switch merge profiles" button to restart the application and go to the <u>Select Profile Window</u>.

#### **Backend**

| Element   | Description  |
|---|--|
| Server host   | The hostname that will be connected to for backend services.   |
| Server port   | The server port that will be connected to for backend services.  |
| Don't send usage statistics (functional as of v2.0.2.3) | If checked, user statistics such as how many merges you've made and how many plugins you've checked for errors will not be sent to the backend. Other server-side statistics will still be tracked (e.g. bandwidth usage, date last seen, etc.). For a full listing of client-side and server-side statistics, please see the <u>Privacy section</u> . |

# Logging

| Element  | Description  |
|----------|--|
| Client   | Specifies the color of Client messages in the log.   |
| General  | Specifies the color of General messages in the log.  |
| Load     | Specifies the color of Load messages in the log.   |
| Merge    | Specifies the color of Merge messages in the log.  |
| Plugin   | Specifies the color of Plugin messages in the log.   |
| Errors   | Specifies the color of Errors messages in the log.   |
| Template | Specifies the template to be used by messages in the log. The accessible variables are: {{Time}}, {{AppTime}}, {{Group}}, {{Label}}, and {{Text}}. |
| Sample   | A sample log message using the template you've specified.  |

# Integrations Tab

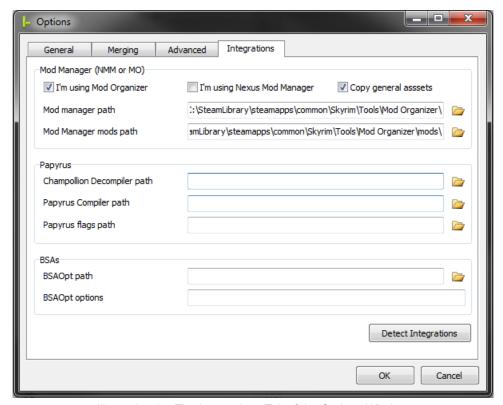


Illustration 15: The Integrations Tab of the Options Window.

#### **Detect Integrations**

You can have Merge Plugins search for installed integrations by clicking the Detect Integrations button. Make sure you verify the integration paths found by Merge Plugins, especially in regards to the Mod Manager integration. Sometimes Merge Plugins detects the wrong installation of Mod Organizer.

#### **Mod Manager**

| Element                     | Description   |  |
|-----------------------------|---|--|
| I'm using Mod Organizer     | Check this if you're using Mod Organizer.   |  |
| I'm using Nexus Mod Manager | Check this if you're using Nexus Mod Manager 0.60a or later. 0.60a and later versions of NMM use a virtual directory structure similar to Mod Organizer.                      |  |
| Mod manager path            | Set this path to the folder holder the Mod Manager's executable file. E.g. ModOrganizer.exe or NexusModManager.exe.   |  |
| Mod manager mods path       | Set this to the path to the folder that holds the mods associated with the mod manager. For Mod Organizer the default location is the mods folder alongside ModOrganizer.exe. |  |
| Copy general assets         | neral assets If checked, general assets (ones that aren't file-specific) will be copied. The only possible with the Mod Organizer integration.                                |  |

# **Papyrus**

| Element                     | Description  |  |
|-----------------------------|--|--|
| Champollion Decompiler path | The path to the Champollion Decompiler executable. This must be set to make use of the handle script fragments option.           |  |
| Papyrus Compiler path       | The path to the Papyrus Compiler executable. This must be set to make use of the handle script fragments option.                 |  |
| Papyrus flags path          | The path to the papyrus flags file (TESV_Papyrus_Flags.flg). This must be set to make use of the handle script fragments option. |  |

### **BSAs**

| Element        | Description   |
|----------------|---|
| BSAOpt path    | The path to the BSAOpt executable. This must be set to make use of the build merged BSA option. |
| BSAOpt options | The target line options you want to use with BSAOpt.  |

# **Changelog Window**



Illustration 16: The changelog window.

The "Changelog Window" shows you the changes between the version you're running and the newest program update before installing it. Once you've reviewed the changes you can click "Install" to have the program download and install the update or "Skip" to not do so.

# **Progress Window**

The Progress Window is a window that comes up when Merge Plugins is performing a large task, such as merging plugins or checking plugins for errors. The window displays the progress of the task being performed through an embedded log and a progress bar.

| Element           | Description  |  |
|-------------------|--|--|
| Progress label    | Displays text corresponding to the operation currently being performed.  |  |
| Progress bar      | Displays the progress of the task currently being performed. Allows you to track how close the operation is to completion.                                 |  |
| Log               | Displays log messages corresponding to the task currently being performed, including errors. The log is only visible if you click the show details button. |  |
| Show/Hide details | Hide details Clicking this button will toggle the log's visibility.  |  |
| Cancel/Close      | Clicking this button while the task is being performed will cancel it. Once the task is completed, it can be clicked to close the progress window.         |  |

# **General Reference**

# **Merge Statuses**

| Color  | Title                        | Description  |  |
|--------|------------------------------|--|--|
| Grey   | Unknown                      | The status for this merge has not yet been determined.                               |  |
| Red    | No plugins to merge          | The merge has no plugins in it and can't be built.                                   |  |
| Red    | Directories invalid          | Your directories are invalid. Set them in the Options Window.                        |  |
| Red    | Plugins not loaded           | Plugins from the merge are not loaded in the application.                            |  |
| Red    | Errors in plugins            | Plugins in the merge have errors in them.  |  |
| Red    | Merge failed                 | Building the merge failed.   |  |
| Orange | Check for errors required    | You need to check all plugins in the merge for errors before the merge can be built. |  |
| Blue   | Up to date                   | The merge has been built and doesn't need to be rebuilt.                             |  |
| Blue   | Up to date [Forced]          | The merge has been marked as up to date by the user.                                 |  |
| Green  | Ready to be built            | The merge has never been built before, and is ready.                                 |  |
| Green  | Ready to be rebuilt          | The merge has been built, but changes in source plugin files have been detected.     |  |
| Green  | Ready to be rebuilt [Forced] | The merge has been built, but marked as needing to be rebuilt by the user.           |  |

# **Rating Colors**

| Color  | Meaning   |
|--------|---|
| Grey   | No user reports on this plugin. Merge rating unknown.                           |
| Black  | Plugin blacklisted. This plugin should never be merged under any circumstances. |
| Red    | Average rating ~0.0, failure to merge   |
| Orange | Average rating ~1.0, dysfunctional  |
| Yellow | Average rating ~2.0, partially functional                                       |
| Olive  | Average rating ~3.0, tweaking required  |
| Green  | Average rating ~4.0, merges perfectly   |

Also see Plugin Ratings.

# **Plugin Ratings**

| Rating                  | Notes  |  |
|-------------------------|--|--|
| -1: Blacklist           | Only recommend a plugin be blacklisted if you're certain there are no circumstances in which it will ever be mergeable. This is for plugins that absolutely cannot be merged. Please explain why you feel the plugin should be blacklisted in the notes section. |  |
| 0: Failure              | Failure to merge means merging the plugin fails completely. E.g. the merged plugin causes CTDs, major stability problems, or merging fails to create a plugin at all.  |  |
| 1: Dysfunctional        | Dysfunctional means the merge doesn't work ingame, with major aspects of the plugins that were merged not working or being entirely missing.   |  |
| 2: Partially functional | Partially functional means the majority of the plugin content works but some of it doesn't. This would be if the plugin achieves its goals but has bugs that were created in merging.  |  |
| 3: Tweaking required    | Tweaking required means you got the plugin to work perfectly in a merge, but had to tweak some things to get it to work. E.g. you modified the plugin or its asset files.  |  |
| 4: Perfect              | Perfect means all aspects of the plugin work perfectly right away and you didn't have to do any tweaking. Nothing missing, nothing broken.   |  |

# **File-specific Assets**

The following table lists the paths of all file specific assets that Merge Plugins can handle. Anything that is put into <angled brackets> is a placeholder.

| Path  | Description   |
|---|---|
| <filename>.bsa</filename>   | A Bethesda archive file.  |
| <filename>.ini</filename>   | An INI file, which can hold the same values as SkyrimProfile.ini. Loaded by the game after SkyrimProfile.ini. |
| seq\ <filename>.seq</filename>  | Helps the game boot up game-start-enabled quests.   |
| interface\translations\ <filename>-<language>.txt</language></filename>   | An MCM translation for the specified language.  |
| meshes\actors\character\facegendata\facegeom\ <filename>\<formid>.nif</formid></filename>                                 | FaceGenData for the shape of an NPC's face. Associated with the record at <formid>.</formid>                  |
| textures\actors\character\facegendata\facetint\ <filename>\FormID&gt;(.dds or .tga)</filename>                            | FaceGenData for the tinting of an NPC's face. Associated with the record at <formid>.</formid>                |
| sound\voice\ <filename>\<voicetype>\ <name><formid>_&lt;#&gt;(.xwm, .lip, or .fuz)</formid></name></voicetype></filename> | Voice data for how an NPC speaks.   |
| Scripts\ <name>_(TIF, QF, or SF)_<name>_<formid>.pex</formid></name></name>   | Script fragment for a dialogue topic-info record (TIF), quest record (QF), or scene record (SF).              |

# **Arguments**

The following table lists arguments you can use to adjust how Merge Plugins starts. You can apply these arguments to shortcuts to the Merge Plugins executable or in Mod Organizer.

| Argument               | Description   |
|------------------------|---|
| -profile {ProfileName} | Use this argument to start the program using the profile specified by {ProfileName}.  |
|                        | Use this argument to start the program in offline mode. In this mode the program will not attempt to connect to the backend server under any circumstances. |

# Arguments with Mod Organizer

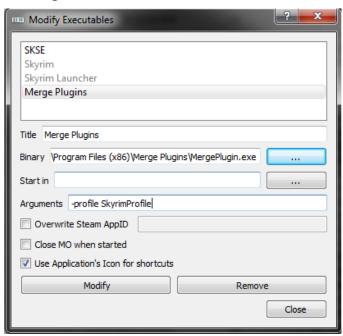


Illustration 17: Adding arguments through Mod Organizer.

If you use Mod Organizer you can configure the Merge Plugins executable to have the arguments you want from the Arguments text box in the Modify Executables Window. See <u>Starting Merge Plugins</u> through Mod <u>Organizer</u> for more information.

## Arguments with Shortcuts

If you don't use Mod Organizer you can apply a target line parameter to a shortcut to Merge Plugins.

- 1. Go to the directory where you installed Merge Plugins, right click the Merge Plugins executable, and choose Create Shortcut.
- 2. Move the shortcut wherever you want, and rename it as you see fit.
- 3. Right-click the shortcut and choose properties.

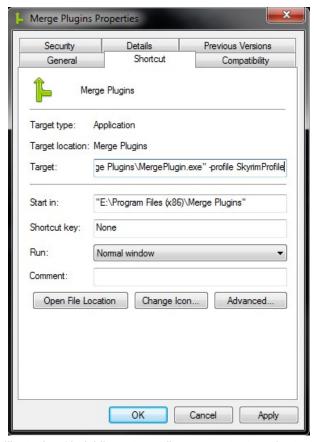


Illustration 18: Adding a target line parameter to a shortcut.

4. At the end of the Target text box type a space and then the target line parameter you want to use. E.g. -profile SkyrimProfile

# **Tutorials**

# **Merging with Mod Organizer**

Mod Organizer is a tool created by Tanin which, in my opinion, offers the best and most powerful way of managing mods. It offers several features which distinguish it from other tools such as Wrye Bash and Nexus Mod Manager. A short list of these features is below:

- **Arbitrary BSA loading:** You can manage your BSA files as you would manage ESPs, forcing the game to load BSAs even if there is no matching ESP in your load order.
- **Install order management:** You can change the install order of mods extremely easily. Where with most tools you'd have to reinstall mods to change their install order, with Mod Organizer you need only change a number in the GUI.
- **Directory virtualization:** Mod Organizer extends your game's data directory, never actually installing anything directly to it. This clean encapsulation gives you a great degree of control over mods even after they have been installed, and allows third party tools (such as Merge Plugins) to interface with your individual mods and their associated assets directly.
- **Asset conflict management:** Mod Organizer also provides easy listing of assets which conflict between your installed mods. Because of the aforementioned directory virtualization, you can easily resolve these conflicts however you see fit without having to uninstall/reinstall mods.
- Overwrite folder: Mod Organizer provides a pseudo-mod called "Overwrite". This allows you to sort the output of various tools into separate mods (e.g. FNIS), and thus allows you to gain a greater degree of control over your load order and reduce time wasted on repetitive tasks.

# Mod Organizer Integration Advantages

Mod Organizer's directory virtualization allows Merge Plugins to associate assets with specific ESP files, and to easily create and install new mods. As a result, you can easily create entirely independent, encapsulated merged mods with Mod Organizer, where you'd normally have to do manual asset copying.

In addition, Mod Organizer's arbitrary BSA loading allows you to create merges without having to extract the BSAs of the ESPs merged. This will save on hard drive space, keep your merged mods cleaner, and allow you to specify asset priority between the assets in the BSAs from the merged plugins after merging.

# Mod Organizer Integration Set Up

#### **Starting Merge Plugins through Mod Organizer**



Illustration 19: The Modify Executables button in Mod Organizer.

1. Click on the Modify Executables button.

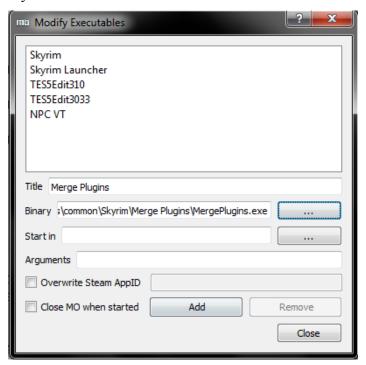


Illustration 20: Adding the Merge Plugins executable.

- 2. Enter the title "Merge Plugins" and click the first [ ... ] button to specify the location of the Merge Plugins binary.
- 3. Click Add and close the window.



Illustration 21: Running Merge Plugins through Mod Organizer.

4. When you want to start Merge Plugins, select it from the dropdown menu and click Run.

#### **Configuring the Mod Organizer Integration**

- 1. Run Merge Plugins through Mod Organizer.
- 2. Open the Options Window and go to the Integrations Tab.

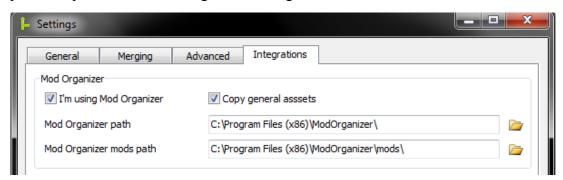


Illustration 22: Setting up the Mod Organizer Integration.

- 3. Check I'm using Mod Organizer and click Detect integrations. If your Mod Organizer installation is not found automatically, click on the folder icon by the Mod Organizer path text box and browse to its location on your file system. Do the same for the Mod Organizer mods path, browsing to the location of your mods folder if it is not the default Mod Organizer\mods folder.
- 4. Verify the paths are correct.
- 5. Proceed to the Merging Tab in the Options Window and specify the **Merge destination directory**. It is best to set this to Mod Organizer's mods folder because merges will then be created as mods directly available through Mod Organizer's interface, without requiring any post-merge steps.
- 6. Restart Merge Plugins to correctly load your Mod Organizer load order.

# Mod Organizer Post-Merge Steps

#### With Copy General Assets

- 1. If you don't see the merged mod in Mod Organizer, right-click  $\rightarrow$  All  $\rightarrow$  Refresh.
- 2. Enable the merged mod in Mod Organizer. It should be the last mod in your list, before Overwrite.
- 3. Disable the mods you merged in Mod Organizer. For mods that have multiple ESPs in them, if you didn't include all of those ESPs in your merge you'll have to leave the mod enabled and disable the ESPs you merged from your load order instead (in the plugins tab). It's not recommended to merge only a few ESPs from a mod because it will create asset duplication.
- 4. Go to the Archives tab in Mod Organizer and enable all BSA archives associated with the merged mod you just created. Be sure to order them properly as well by dragging and dropping them.

### **Without Copy General Assets**

- 1. If you don't see the merged mod in Mod Organizer, right-click  $\rightarrow$  All  $\rightarrow$  Refresh.
- 2. Enable the merged mod in Mod Organizer. It should be the last mod in your list, before Overwrite.
- 3. Disable the ESPs you merged from your load order.

# **Merging with Nexus Mod Manager**

Nexus Mod Manager is a multi-game mod manager which offers a basic managed approach to modding. As far as Merge Plugins is concerned, using Nexus Mod Manager is pretty much equivalent to having unmanaged mods.

### Settings for use with Nexus Mod Manager

Nexus Mod Manager doesn't do any special handling of BSA files. Because of this, you need to use either the Extract BSAs or the Build merged BSA setting. You can enable these in the Merging Tab of the <u>Options Window</u>. You should only enable one of these options.

### Nexus Mod Manager Post-Merge Steps

Because you can't copy general assets with Nexus Mod Manager, you have two major choices for post-merge procedures to get a functioning merge.

#### **Disabling ESPs**

The easiest post-merge procedure is to simply disable the ESPs you merged in your load order. This will leave all the assets associated with the mods behind in your data folder.

- 1. Go to your merge destination directory, and find the folder named after the merge you built.
- 2. Go inside of the folder, select all files in it, and add them to an archive.
- 3. Load the archive into NMM.
- 4. Uncheck the plugins you merged from the plugins tab in NMM.

#### **Manually Copying General Assets**

If you instead want to save a bit on hard drive space, and have a cleaner looking load order (with fewer deactivated plugins), you can instead opt to manually copy general assets.

- 1. Open NMM's archives folder.
- 2. Find the archives associated with the mods you merged.
- 3. Extract all of the archives to a single folder in the order that the mods were installed.
- 5. Copy all remaining assets to the folder for the merge you (which you can find in your merge destination directory), then select all files in the folder and add them to an archive.
- 6. In NMM, deactivate the mods corresponding to the archives you just handled.
- 7. Load the new, merged mod archive into NMM and activate it.

# **Integration Set Up**

All integrations can be automatically detected by Merge Plugins. Merge Plugins searches for the Decompiler, Compiler, and BSAOpt integrations in its folder and in your game path up to two folders deep. Merge Plugins searches for the papyrus flags file at *scripts\source\TESV\_Papyrus\_Flags.flg*. Merge Plugins searches for Mod Organizer in your game path (up to two folders deep) and in both \*:\Program Files and \*:\Program Files (x86).

### Mod Organizer

See Mod Organizer Integration Setup.

### **Papyrus**

The papyrus integrations are only used for handling Skyrim script fragments. If you don't want to handle Skyrim script fragments, you don't need to set them up.

#### **Champollion Decompiler**

- 1. Download Champollion.
- 2. Install it somewhere by extracting the archive into a folder. I recommend installing in a folder in your Skyrim directory or in the Merge Plugins directory.
- 3. Click the Detect Integrations button, the program should find Champollion.exe automatically. If it doesn't, click the browse button and go to the location of Champollion.exe, select it and click OK.
- 4. Don't forget to endorse Champollion on Nexus Mods!

#### **Papyrus Compiler**

- 1. Download the Creation Kit from Steam.
- 2. Click the Detect Integrations button, the program should find PapyrusCompiler.exe automatically. IF it doesn't click the browse button and go to the location of the Papyrus Compiler executable, select it, and click OK.

#### Papyrus Flags

- 1. <u>Download the Creation Kit from Steam</u>. If you already have it, make sure it is up-to-date.
- 2. Find the scripts.rar archive in your Skyrim data directory.
- 3. Extract the archive. It should create a file *Data\scripts\source\TESV Papyrus Flags.flg*
- 4. Click the Detect Integrations button, the program should find TESV\_Papyrus\_Flags.flg automatically. If it doesn't, click the browse button and browse to the location of the TESV Papyrus Flags.flg file, select it, and click OK.

## **BSAOpt**

You only need the BSAOpt integration if you plan on using the Build merged BSA option.

- 1. Download BSAOpt v2.0 beta.
- 2. Install it somewhere by extracting the archive into a folder. I recommend installing in a folder in your game directory or in the Merge Plugins directory.
- 3. Click the Detect Integrations button, the program should find BSAOpt automatically, regardless of the version you installed. If it doesn't, click the browse button and go to the location of the BSAOpt executable, select it and click OK.
- 4. You may want to configure the BSAOpt command line options. Refer to the BSAOpt help for help configuring these. (you can also just leave them at the defaults)
- 5. Don't forget to endorse BSAOpt!

# **Rebuilding Merges**

# When to Rebuild a Merge

You should rebuild a merge when:

- a) You download a new version of one or more mods in the merge.
- b) You add a new plugin to your load order which requires a plugin that's in one of your merges It's not necessary to rebuild merges when the program updates.

### Effects of Rebuilding a Merge

Rebuilding a merge will delete all files associated with that merge. Nothing from the previous build of the merge will be preserved. In addition, all properties of the merge will be updated (e.g. plugin hashes, and record copying failures).

#### Rebuild Status Detection

The application will detect that a merge needs to be rebuilt if one or more plugins associated with it have been modified (detected through their CRC32 hash) or if the merged plugin has been deleted.

**Note:** you can ignore or force rebuild statuses by right-clicking a merge and choosing "Toggle rebuild status".

# **Updating**

# Updating the Program

- 1. Click the Update button in the Quickbar, or go to the Options Window and click Update Program.
- 2. Look over the changes in the Changelog Window. If you're cool with the changes, click Install.
- 3. The program will download the new version of the program from the backend, install it, and restart itself. **NOTE:** If you're using a recent version of Mod Organizer, the program restarting may cause Mod Organizer to stop applying its virtual directory structure, causing fewer plugins to be loaded.

Updating the Dictionary

**Automatic Updating** 

**Submitting Reports** 

**Debugging** 

# **Community**

# **Making a Translation**

Merge Plugins Standalone offers a highly extensible, simple translation system. If you want to make a translation, you need only translate the strings in the *lang\english.lang* file to your chosen language and save it as a new file. From there, you can switch to your new language from within the program from the language drop-down.

## Latest english.lang

If you want to make a translation, I recommend you get the <u>latest english lang file from GitHub</u>. This will make certain your translation doesn't need to be updated anytime soon.

### Notepad++ Environment

If you use Notepad++, you can use my user-defined language and custom theme when editing language files to make your experience of making a translation easier and more efficient.

#### **Custom Style**

- 1. Download the inverted xml file from GitHub
- 2. Install it in the themes folder in your Notepad++ program directory, e.g. *C:\Program Files (x86)\Notepad++\themes*
- 3. Select the theme from Settings → Style Configurator in Notepad++

### **User-defined Language**

- 1. Download the lang-markup.xml file from GitHub
- 2. Start Notepad++ and go to Language → Define your language, then click the Import button and navigate to the lang-markup.xml file you downloaded
- 3. Once you language is imported, close the User defined language window and click on Language → Lang

#### UTF8

If you're translating into a language that has special non-alphanumeric characters (e.g. any character not in standard <u>ASCII</u>), you'll need to save your file with UTF8 encoding. How you do this will depend on the text editor you're using. I recommend using Notepad++. If you're using Notepad++ you simply need to go to the Encoding tab and choose "Encode in UTF8".

# Syntax

There is some basic syntax to language files. Below are some symbols and their meanings.

| Symbol | Meaning  |
|--------|--|
| =      | Used to separate name value pairs. You should never translate names, only values.  |
| %s, %d | Used to substitute values. Don't translate these. You can view them in context to adjust their positioning in your translated string to fit your language's grammar. |
| {}     | Used for comments. Don't translate these.  |
| I      | Used to separate titles from descriptions for certain hints. Some strings have trailing pipes because they're used in constructing hints.                            |
| #13#10 | Replaced with a new line in the program. You'll want to use these with long strings.   |

# **Development**

# GitHub, Hipchat, and Forums

There are several places where you can participate in the development of Merge Plugins.

- **GitHub** provides a means by which you can follow Merge Plugins <u>development</u> and <u>issues</u>. This is a great way to get an idea of how development is progressing.
- **Hipchat** is a program that provides a network of chatrooms. The xEdit Hipchat has a room for Merge Plugins as well as general Chit-chat. If you want to get help with the program or get involved in the development process, you can join as a guest or register an account.
- **Forums** are used by most users. Merge Plugins discussion takes place on the Nexus Mods forums, STEP forums, AFKMods forums, and Bethesda forums. Feel free to post in these topics whenever you need help, or to keep up-to-date with the latest news and developments.

### Reporting Issues

If you feel you may have found an issue in Merge Plugins, I ask that you submit it in a certain fashion. This is to help me to resolve issues in a timely manner and keep my sanity intact. Developing a large application is a lot of work, and there is nothing quite so frustrating as an unhelpful bug report. Please, help me to help you to help us all by following these simple guidelines when submitting an issue:

- 1. Clearly state what the bug is. If I don't know what the bug is, there's no way for me to fix it.
- 2. Clearly state when the bug happens. I cannot find a tree in a forest if you do not tell me where the tree is. When a bug occurs during program execution can be roughly translated into an area in the codebase where it may be located.
- 3. **Provide logs.** Merge Plugins logs things extremely well. Go to the logs folder and get the log where the bug occurred and include it with your bug report.
- 4. **Provide screenshots.** Depending on the bug, screenshots may or may not be useful. If your bug has anything to do with the GUI, a screenshot can be valuable.

Please submit issues to the GitHub issue tracker.

# Feature Requests

Merge Plugins is a massive project. I really appreciate community input on features, but it's important to understand that not every feature that is presented to me will be made. Some features aren't feasible, and others are simply not useful enough to be worth the time required to build them. Please exercise the understanding that your feature requests may be accepted or denied.

## Joining the Development Team

Merge Plugins Standalone is open source, and I would love the opportunity to work with other developers to improve it. If you have experience programming, and like what Merge Plugins does, please feel free to contribute to the repository on GitHub. I will gladly review and approve pull requests that include valuable additions to the application without compromising established style or architecture.

There are other ways to can help as well. E.g. testing features, proofreading documentation, submitting issues, making feature requests, etc. I appreciate any help I can get.

#### Service

### Service Agreement

Merge Plugins Standalone is both a backend and a frontend. The frontend runs on your computer, and is what you interface, where the backend is run on a server that I manage with. The backend is what distributes program and dictionary updates, accepts your reports, and tracks user statistics so I can improve the software in the future. Your usage of the frontend is of no concern to me so long as you remain within the legal bounds of the license (the MPL). However, your usage of the backend service is of concern to me, and may be terminated at any time should you break from the following agreement.

- 1. You will not, under any circumstances, act to damage or slow down the server. E.g. by sending false data, or overusing bandwidth by requesting files repeatedly.
- 2. You will not send false or maliciously incorrect reports on plugins.
- 3. You will not interface with the server through any means other than the client service offered through the Merge Plugins application.

Should you be found in violation of any of these agreements, you will be blacklisted, and will no longer be able to make use of the backend service. I do not expect to encounter a large amount of abuse, but I have the infrastructure in place to deal with any abuse that does occur. Please be aware that your access to the backend service is not irrevocable, and malicious actions will not tolerated.

## Service Transference

Should I ever stop running the server that hosts the Merge Plugins backend, it is completely possible for another user to create a new server hosting the backend. The source code for the Merge Plugins backend is available on GitHub in the same repository as the Merge Plugins frontend, and there are also several resources for set up that should make it extremely easy.

#### **Backend Set Up**

- 1. Compile the backend using Delphi XE or newer.
- 2. Install MySQL 5.6, and set up a database and tables for the backend to use. You can run the <u>backend setup script</u> for setting up tables to the application's specifications.
- 3. Start the backend and enter the information necessary to access your MySQL database.
- 4. Make sure your server is visible to the outside world, and that port 960 is open.
- 5. Get a public domain or subdomain address, and bind it to the IP address of your server. You can do this through any of many services, such as <u>DynDNS</u> or <u>freedns.afraid.org</u>. **NOTE:** this is optional, you can use an IP address instead, but using a DNS is highly recommended.
- 6. Instruct users to modify their *profiles*\<*ProfileName*>\*settings.ini* file, changing the serverHost value to the address of your server.

## Privacy

Your privacy is important to me, and so is transparency. I understand that you may not be interested in allowing Merge Plugins to gain access to statistics about your usage of the program. Below is a listing of all the information that Merge Plugins gathers on users, and how you can opt out of them.

| Statistic         | Description   | How to opt out |
|-------------------|---|----------------|
| Times run         | The number times you've run the application.            | [1]            |
| Merges built      | The number of merges you've built.                      | [1]            |
| Plugins checked   | The number of plugins you've checked for errors.        | [1]            |
| Plugins merged    | The number of unique plugins you've merged.             | [1]            |
| Plugins fixed     | The number of plugins you've fixed errors in.           | [1]            |
| Reports submitted | The number of reports you've submitted to the backend.  | [2]            |
| IP Address        | Your IP address.  | [2]            |
| Username          | Your username.  | [3]            |
| First seen        | The date and time you first connected to the backend.   | [2]            |
| Last seen         | The date and time you last connected to the backend.    | [2]            |
| Times seen        | The number of times you've connected to the backend.    | [2]            |
| Download          | The number of bytes you've downloaded from the backend. | [2]            |
| Upload            | The number of bytes you've uploaded to the backend.     | [2]            |

- [1] Enable the <u>Do not send usage statistics</u> option.
- [2] Use the -offline argument. Doing this will make it so you can no longer get dictionary or program updates through the program.
- [3] Don't enter a username on the options window. If you do this, you will no longer be able to submit user reports.

### License

Merge Plugins is <u>open source</u>, and licensed under the MPL. Please refer to <u>the license on GitHub</u> for more information. Merge Plugins cannot be licensed under any license other than the MPL because xEdit is licensed under the MPL, and Merge Plugins relies on xEdit as an API.

# Plain English

Check out the tl;drLegal page on the MPL 1.1.