

Merge Plugins Standalone

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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

Deprecated 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 deprecated this feature. If you want to remove a plugin from a merge, just rebuild the merge.
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 deprecated.

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 re-download 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



Illustration 1: The select profile window.

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.

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.



Illustration 2: The splash window.

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.

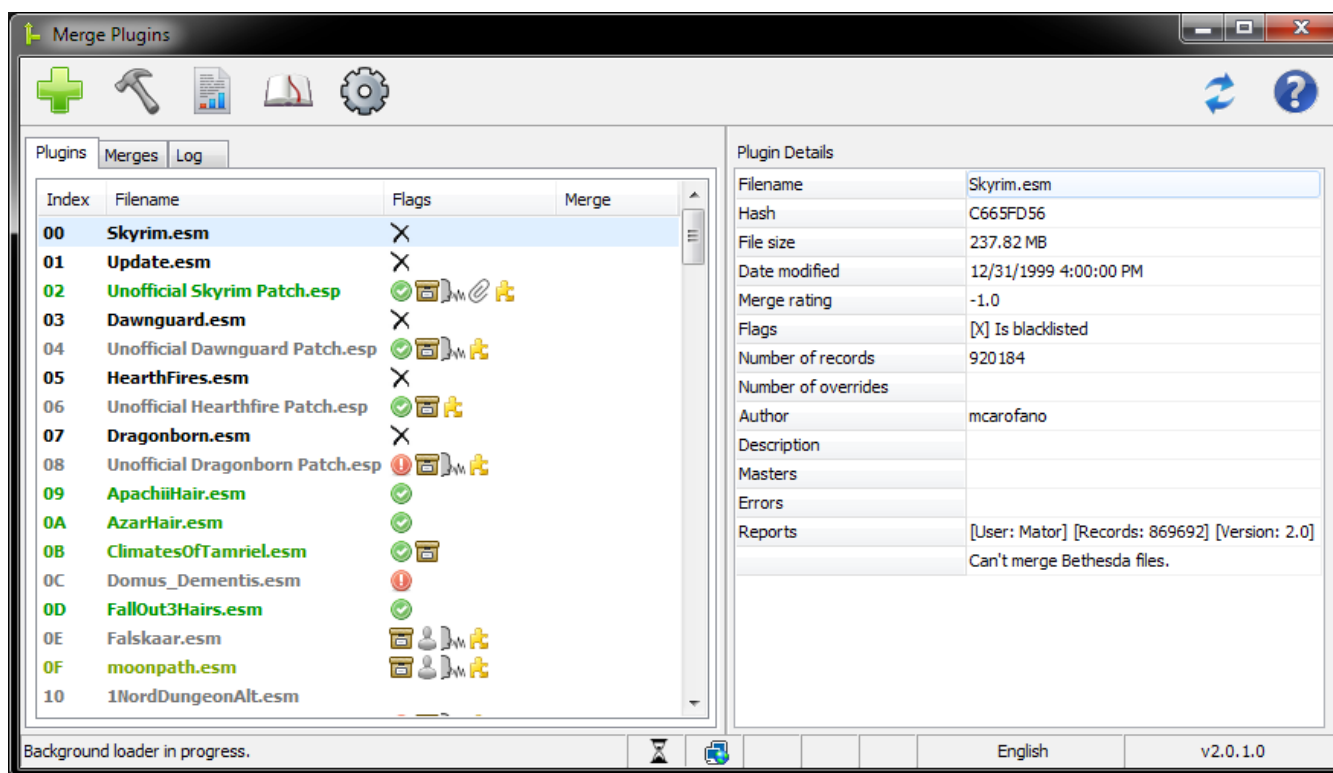


Illustration 3: The main application window (at small window size so you can see it).

Main Application Window

The main application window is the location from which you interface with all of the functionality offered by Merge Plugins.



Illustration 4: The quick bar.

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 Edit Merge window 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 Merge Statuses if you want to force a rebuild of your merges.

Report on Merges

Clicking the Report on Merges button will bring up the Report Window. 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 Dictionary Viewer with no filters set.

Options

Clicking the Options button will bring up the Options Window.

Update

Clicking the Update button will update the dictionary and application if any update is available. Hovering over the Update button will display a hint specifying what updates are available and a brief change log.

Help

Note: The help button is currently non-functional. The description below applies to planned functionality, not current functionality.

Clicking the Help button will bring up the help pages. Note that help pages are available both as a .chm file and as hosted webpages. You can specify which you want to be directed to in the Advanced Tab of the Options Window.

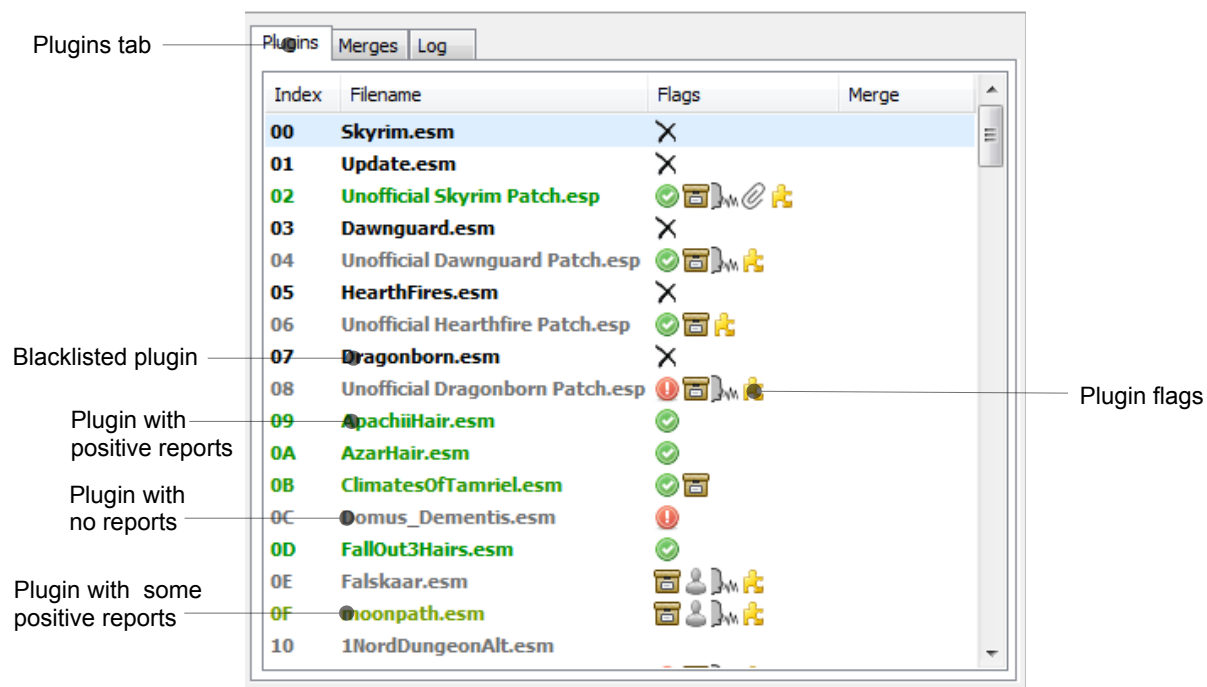


Illustration 5: The Plugins Tab and Plugins List View.












Plugins Tab

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 Rating Colors 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

<i>Icon</i>	<i>Character</i>	<i>Description</i>
	X	Is blacklisted
	E	Has errors
	R	Errors ignored
	N	Has no errors
	A	Has a BSA file
	G	Has FaceGenData
	V	Has voice data
	T	Has MCM translations
	I	Has an INI file
	F	Has script fragments
	D	Disallow merging

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>	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>	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.
Report on plugin	Brings up the Report Window for the selected plugins.	If no selected plugin is blacklisted.
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.
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.
Unignore errors	Unsets the errors ignored flag on selected plugins.	If all selected plugins have the ignore errors flags set.
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.
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.

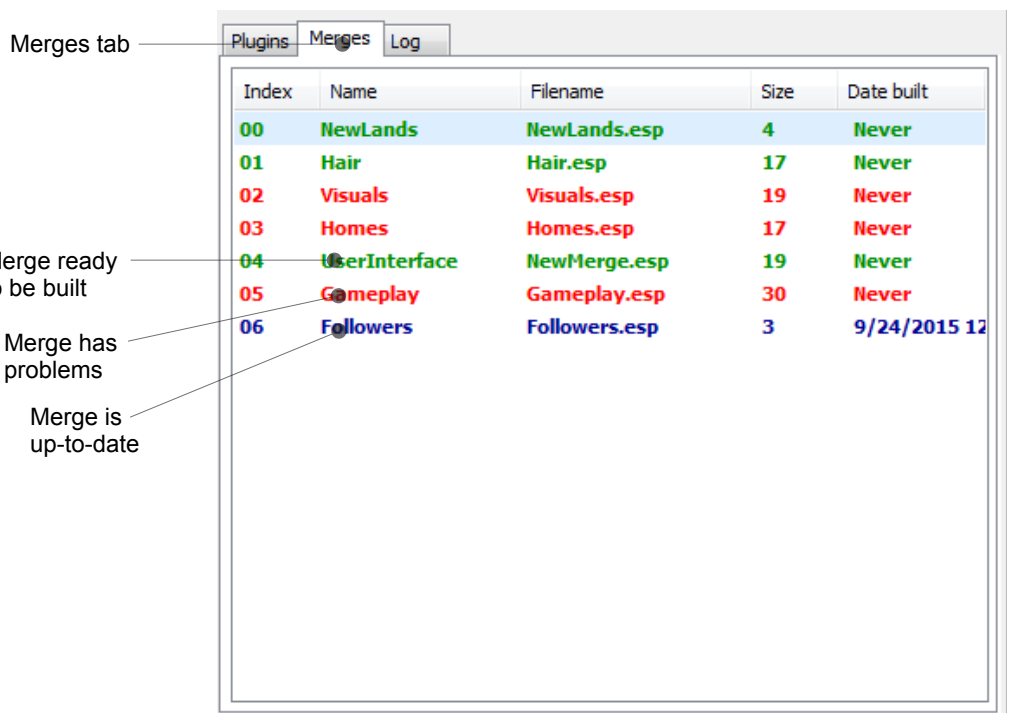


Illustration 6: The merges tab.

Merges Tab

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

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.
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.
Clean merge	Removes plugins that have errors or that aren't loaded from the merge.	If the merge has unloaded plugins or plugins with errors.
Delete merge	Deletes the selected merges.	If a merge is selected.
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.
Report on merge	Opens the Report Window with all plugins in selected merges.	If one or more selected merges is up to date.
Force rebuild status	Switches merges from the "Up to date" status to "Ready to be rebuilt [forced]".	If one or more selected merges is up to date.
Ignore rebuild status	Switch merges from the "Ready to be rebuilt" status to "Up to date [forced]"	If one or more selected merges is ready to be rebuilt.

Merge Details

When you select a merge, its details will be populated in the Details Pane. 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 Options Window. 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 Options Window.

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>	Toggles visibility of log messages from the specified group.	Always
Filter label → <Toggle> <Group>, <Label>	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	Toggles autoscroll 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.
Website	The website for the Merge Plugins project.
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.

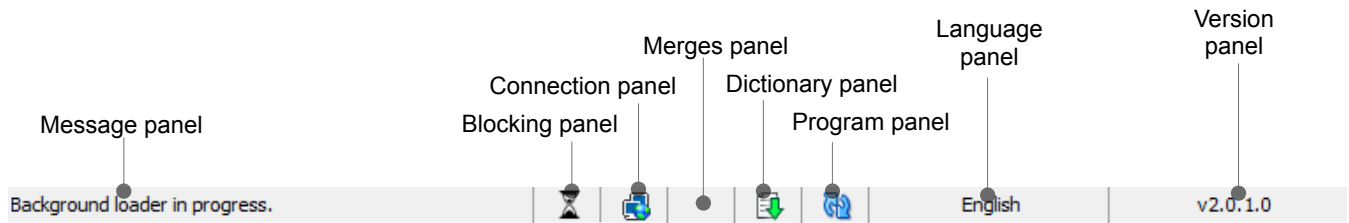







Illustration 7: The status bar.

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		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		Displays its icon if a dictionary update is available.
Program panel		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.

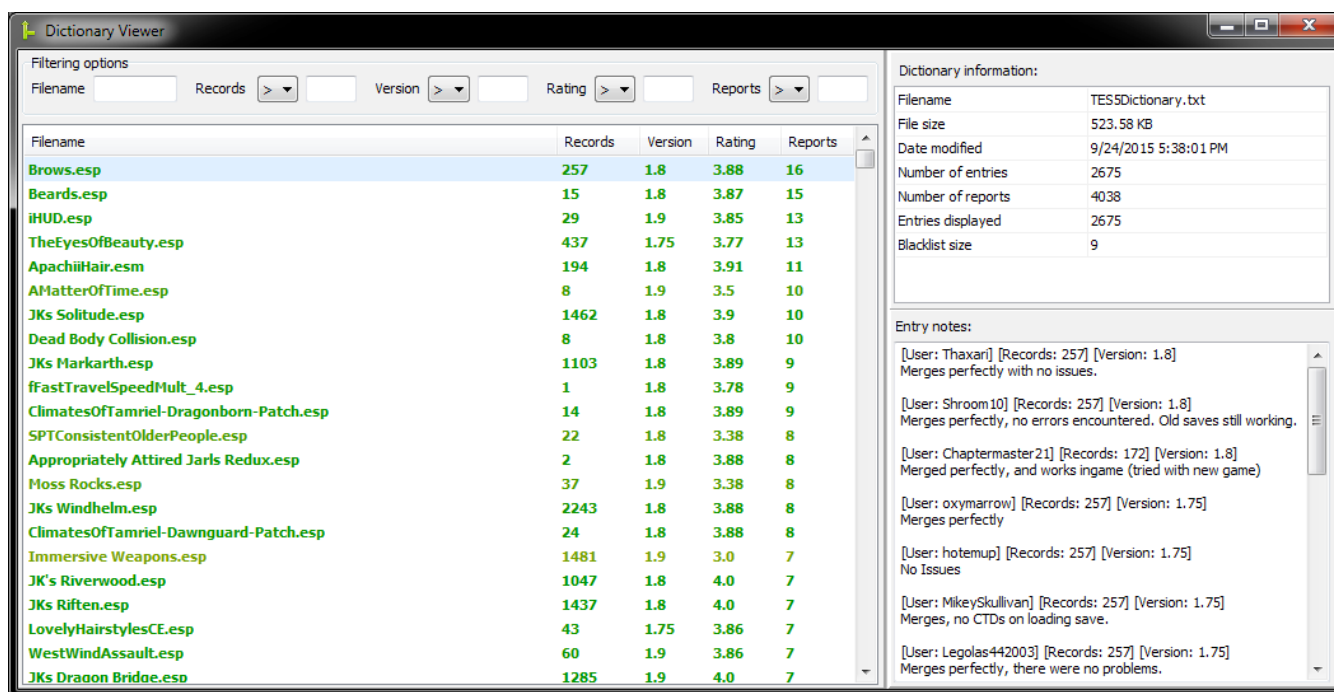


Illustration 8: The view dictionary window.

View Dictionary Window

The View Dictionary Window displays a list of all dictionary entries in the dictionary file for the current game mode. The View Dictionary 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 groupbox 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.
Version	Greater than, less than, equal to	Selects entries which have a version <mode> the entered floating point number.
Rating	Greater than, less than, equal to	Selects entries which have a rating <mode> the entered floating point number.
Reports	Greater than, less than, equal to	Selects entries which have a number of reports <mode> the entered integer number.

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}}]

Submit report

Beards.esp

HASH: 85B4CEFA RECORDS: 16 FLAGS: N

Existing reports

Average rating	3.87
Number of reports	15

[View details](#)

Your report

Rating: 4: Perfect

Notes: Merges perfectly! :D

Previous Done

Illustration 9: The report window.

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.

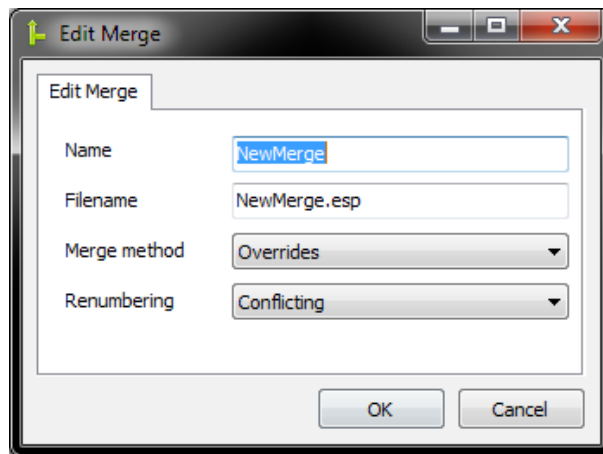


Illustration 10: The edit merge window.

Edit Merge Window

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

<i>Element</i>	<i>Description</i>
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

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

<i>Element</i>	<i>Description</i>
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

<i>Element</i>	<i>Description</i>
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

Asset handling

<i>Element</i>	<i>Description</i>
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 grey 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 requires setting up the decompiler and compiler integrations correctly. 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 does not require setting up the BSAApt 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 requires setting up the BSAApt integration. This is a nice alternative to Extract BSAs if you're using NMM. Note: BSAs have a maximum filesize 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

Privacy

Element	Description
Don't send usage statistics (not yet functional)	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 Service Agreement.
Only connect to server when required (not yet functional)	If checked, the client will only connect to the Merge Plugins server when absolutely necessary, and will promptly disconnect after the operation is completed. E.g. to get update status, to download an update, or to send a report.

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

The integrations tab allows you to configure the integrations supported by Merge Plugins. You can have Merge Plugins search for installed integrations by clicking the Detect Integrations button.

Mod Organizer

<i>Element</i>	<i>Description</i>
I'm using Mod Organizer	If checked, the program will attempt to use the Mod Organizer integration.
Mod Organizer mods path	Set this to the path to Mod Organizer's mods folder. The default location is the folder "mods" in the same directory as ModOrganizer.exe. You will not be able to build merges if this is not set and the Mod Organizer integration is enabled.
Copy general assets	If checked, general assets (ones that aren't file-specific) will be copied. This is only possible with the Mod Organizer integration.

Papyrus

<i>Element</i>	<i>Description</i>
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

<i>Element</i>	<i>Description</i>
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.

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.

<i>Element</i>	<i>Description</i>
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	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

<i>Color</i>	<i>Title</i>	<i>Description</i>
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

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

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 psudeo-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

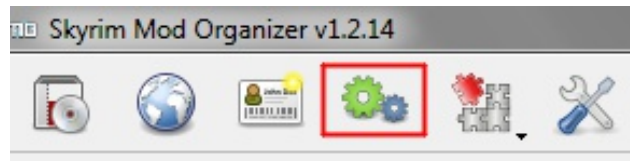


Illustration 11: The Modify Executables button in Mod Organizer.

1. Click on the Modify Executables button.

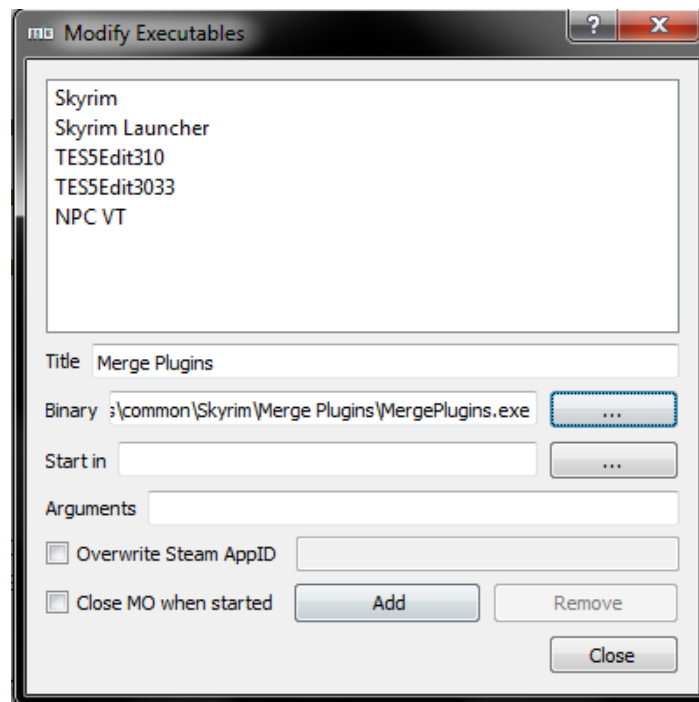


Illustration 12: Adding the Merge Plugins executable.

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.

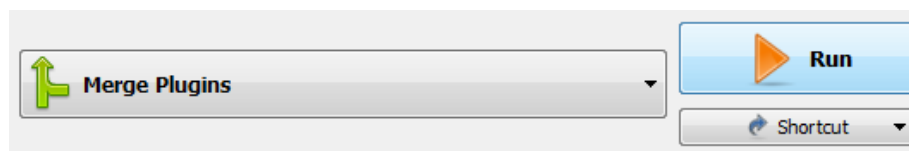


Illustration 13: Running Merge Plugins through Mod Organizer.

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.

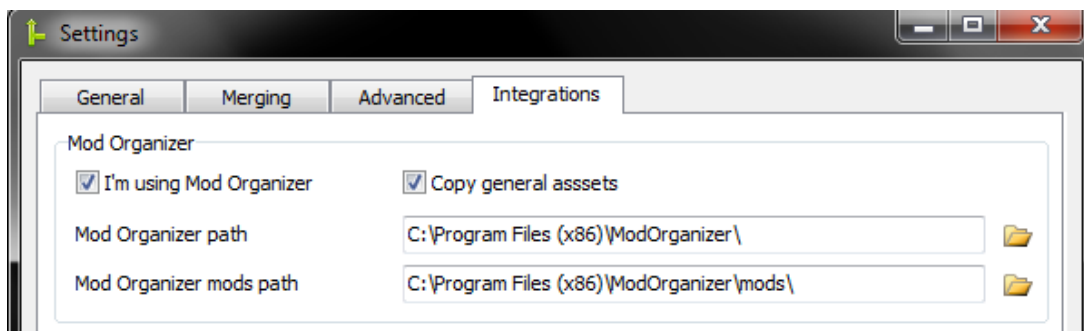


Illustration 14: Setting up the Mod Organizer Integration.

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 → All → 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 → All → 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 [Options Window](#). 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.
4. Delete all file-specific assets associated with the plugins you merged, as well as the plugins you merged. A list of file-specific assets can be found [here](#). **Note:** If there are any plugins here that you didn't merge, do not delete them or the file-specific assets associated with them.
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 BSAApt 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. [Download the Creation Kit from Steam](#). 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

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 dropdown.

Latest english.lang

If you want to make a translation, I recommend you get the [latest english.lang file from GitHub](#). 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 [ASCII](#)), 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.
	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

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.

Bug Reports

If you feel you may have found a bug in Merge Plugins, I ask that you submit it in a certain fashion. This is to help me to resolve bugs 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 a bug report:

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.

You can submit bugs on forum threads, or more preferably, to the [GitHub issue tracker](#).

Contributing

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.

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 [backend setup script](#) 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 [DynDNS](#) or [freedns.afraid.org](#). **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.

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 hogging 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 be tolerated.

License

Merge Plugins is licensed under the MPL. Please refer to [the license on GitHub](#) for more information.