

Real-Time Modding for FFXIV

Using TexTools with Lumina/Penumbra

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1 Introduction

Penumbra is a new modding toolkit for FFXIV that solves a lot of problems with the original "dat modding" approach TexTools is applying.

1.1 Advantages

With this new approach, the game data is never modified and nothing is ever written to original Square Enix files, removing a lot of complexity and possible sources of errors. It can be compared to "mod managers" for games like Skyrim or Fallout and is completely update-resistant.

No work will ever be needed by end-users to make mods functional again after an update.

1.2 Penumbra for mod creation

Penumbra can also be used to speed up the mod creation process by making it possible to re-import models, textures and other files while the game is running and a character is logged in.

Penumbra itself cannot yet import textures and models itself, which is why this document details an intermediary solution with TexTools acting as an importer for any changes. Already exported mods(in *TTMP/2* format) are already fully compatible and can be imported directly in Penumbra without any need for TexTools.

2 Setup

2.1 Requirements

To use Penumbra, you need to be running the game using XIVLauncher¹.
To mod directly with TexTools to Penumbra, you need to be running the beta version of TexTools.

2.2 Installing Penumbra

Please download Penumbra from the official GitHub page².

Proceed to extract it into XIVLauncher's "*devPlugins*" directory(see fig. 2).

2.3 Setting up a mod directory

On your hard disk, create a folder that will be used to store Penumbra mods.
This folder will need to be specified in Penumbra and TexTools.
The location of this folder does not matter.

Inside this folder, create a subfolder called "*TexTools*".

2.4 Setting up Penumbra

Start the game.

On the title screen, click the newly appeared "*Manage mods*"(see fig. 1) button.

On the next screen, paste the path to the previously set-up mod directory and make sure that the "*Enable mods*" box is checked.

You can recall this screen any time in-game by typing `"/penumbra"`.

¹<https://github.com/goatcorp/FFXIVQuickLauncher/>

²<https://github.com/xivdev/Penumbra/releases/>

2.5 Setting up TexTools

In TexTools, click “*Options*” and select “*Customize*” (see fig. 4).

On this screen, in the “*Lumina Options*” section, you will need to specify the “*TexTools*” folder within the Penumbra mod directory we created in step 2.3.

Now, whenever the “*Redirect imports to Lumina*” option is checked, all changes within TexTools will not be written to the game or your modlist, and instead be written into your Penumbra mod directory.

2.6 Testing in-game

To test a modded file in-game, you can either change zones, unequip and re-equip the piece of gear inside private quarters or a house, or use the CM-Tools “*Character refresh*” feature.

Attention: If you have not previously ever modded the piece of gear with Penumbra, you have to click the “*Rediscover Mods*” button in the “/penumbra” screen.

You can also import any TexTools *TTMP/2* mod with the “*Import Mods*” menu.

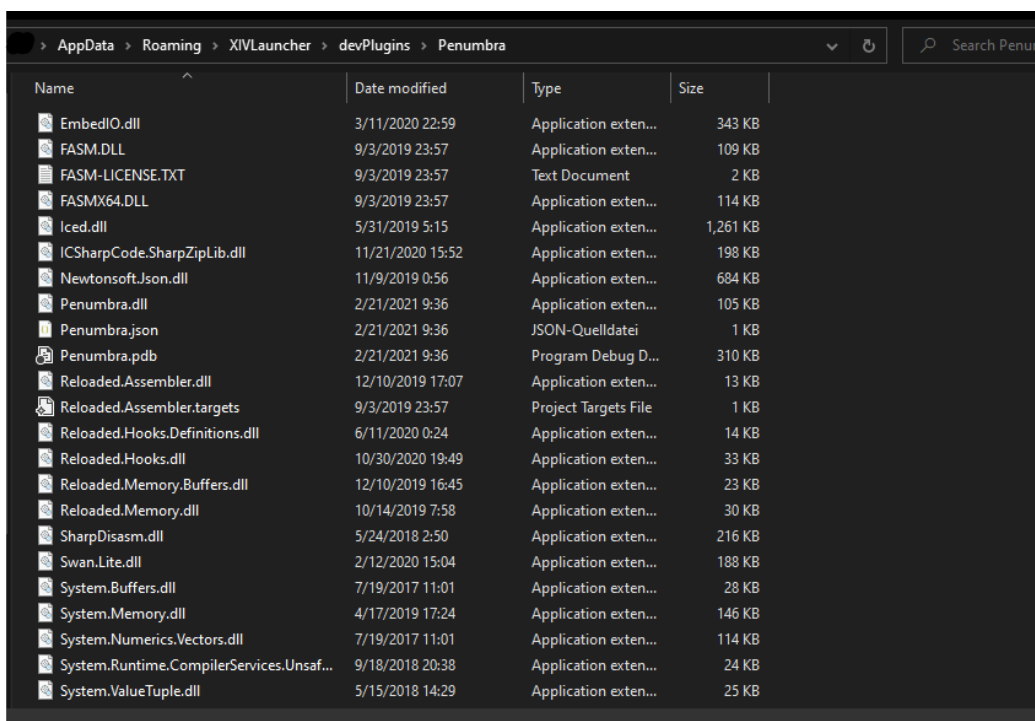
3 Feedback

If you encounter any issues with this process or with Penumbra itself, feel free to reach out in the TexTools discord server.

4 Figures



Figure 1: The “*Manage mods*” button.



Name	Date modified	Type	Size
EmbedIO.dll	3/11/2020 22:59	Application exten...	343 KB
FASM.DLL	9/3/2019 23:57	Application exten...	109 KB
FASM-LICENSE.TXT	9/3/2019 23:57	Text Document	2 KB
FASM64.DLL	9/3/2019 23:57	Application exten...	114 KB
Iced.dll	5/31/2019 5:15	Application exten...	1,261 KB
ICSharpCode.SharpZipLib.dll	11/21/2020 15:52	Application exten...	198 KB
Newtonsoft.Json.dll	11/9/2019 0:56	Application exten...	684 KB
Penumbra.dll	2/21/2021 9:36	Application exten...	105 KB
Penumbra.json	2/21/2021 9:36	JSON-Quelldatei	1 KB
Penumbra.pdb	2/21/2021 9:36	Program Debug D...	310 KB
Reloaded.Assembler.dll	12/10/2019 17:07	Application exten...	13 KB
Reloaded.Assembler.targets	9/3/2019 23:57	Project Targets File	1 KB
Reloaded.Hooks.Definitions.dll	6/11/2020 0:24	Application exten...	14 KB
Reloaded.Hooks.dll	10/30/2020 19:49	Application exten...	33 KB
Reloaded.Memory.Buffers.dll	12/10/2019 16:45	Application exten...	23 KB
Reloaded.Memory.dll	10/14/2019 7:58	Application exten...	30 KB
SharpDisasm.dll	5/24/2018 2:50	Application exten...	216 KB
Swan.Lite.dll	2/12/2020 15:04	Application exten...	188 KB
System.Buffers.dll	7/19/2017 11:01	Application exten...	28 KB
System.Memory.dll	4/17/2019 17:24	Application exten...	146 KB
System.Numerics.Vectors.dll	7/19/2017 11:01	Application exten...	114 KB
System.Runtime.CompilerServices.Unsaf...	9/18/2018 20:38	Application exten...	24 KB
System.ValueTuple.dll	5/15/2018 14:29	Application exten...	25 KB

Figure 2: Final, extracted “*devPlugins*” folder.

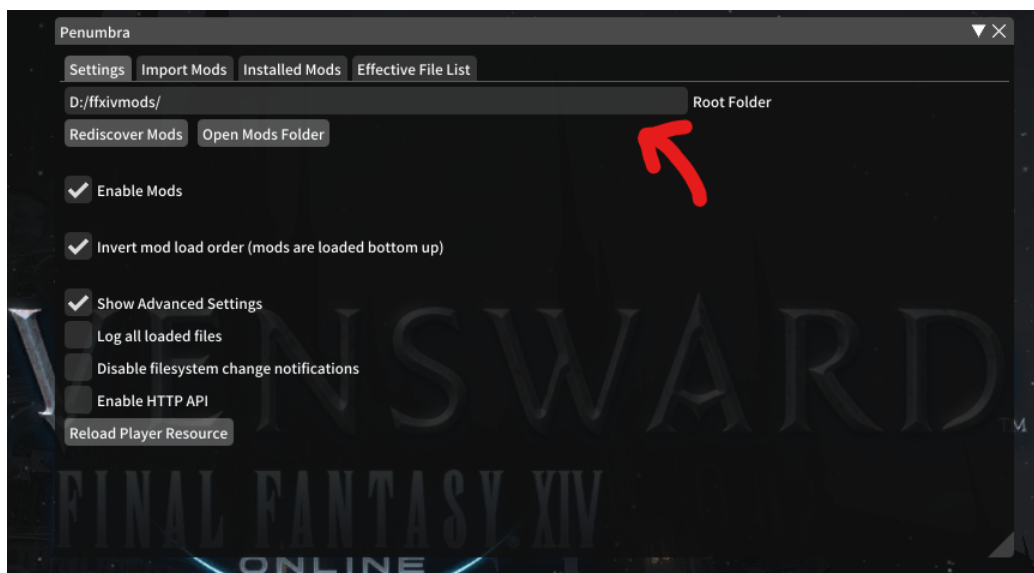


Figure 3: Specify the path of your previously set-up mod directory here and ensure that the “*Enable mods*” box is checked.

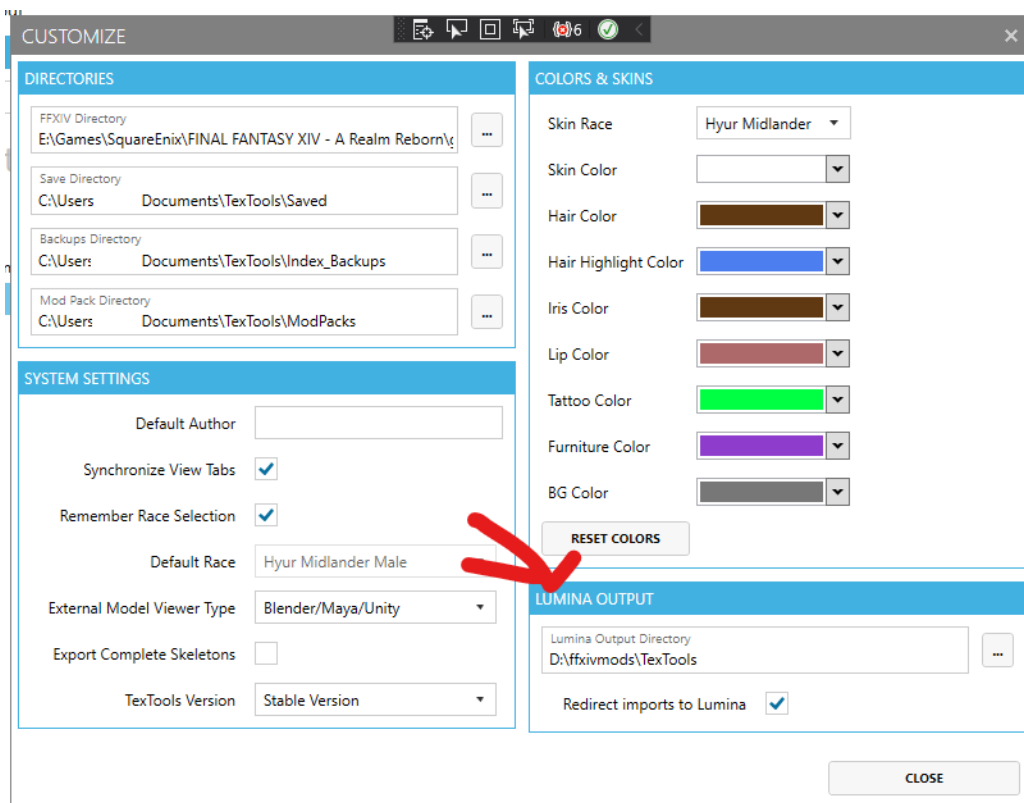


Figure 4: Specify the path of your previously set-up mod directory here and ensure that the “*Redirect imports to Lumina*” box is checked.