

OpenKH/Modloader Guide For Linux/MacOS Users

Introduction

Linux gaming has come a very long way since the introduction of Proton back in 2018. Additionally, with the Steam Deck now out in the wild and the ever-present popularity of Kingdom Hearts 2 randomizers and mods, there is no reason that Linux or MacOS users shouldn't be able to get in on the fun as well.

This guide will help new users get set up with Kingdom Hearts PC modding on either their Linux gaming PC or Steam Deck by using the current releases of WINE.

IMPORTANT: Linux and MacOS are not officially supported platforms for the OpenKH toolset and Kingdom Hearts 2. Expect minimal to no official support for many if not all issues that can't be readily diagnosed under Windows.

This guide functions mostly the same for regular Linux distributions and the Steam Deck. Steam Deck specific processes will be listed under their own heading.

For standard linux, this guide assumes that you have done the requisite degree of setup required for your Linux system and can run games successfully. (Graphic drivers installed, Steam and WINE run games, et al)

For MacOS, you will require either Crossover or Whisky and ideally an M1 Mac. Intel macs will also likely work for this, but are not officially supported since they are declining in Apple's eyes.

The Steam Deck will require Desktop Mode to be used for a majority of the setup. It is recommended that you have a dock with a keyboard and mouse to perform the following steps. Otherwise, the Steam Deck requires minimal preamble and will work largely out of the box.

Prerequisites (Linux):

- An Epic Games OR Steam account with a purchased copy of Kingdom Hearts 1.5-2.5 Remix.
- A Steam Deck or Linux PC that is properly set up for gaming.
- About 70-100+GB of disk space.

Prerequisites (MacOS):

- An M-Series Mac (This might work on Intel, but there is no guarantee that it will continue to work in the future as many WINE frontends that make this process easier are dropping support for Intel. For brevity, this guide will assume you have an M-series mac.)
- A Steam account with a purchased copy of Kingdom Hearts 1.5-2.5 REMIX. (Epic Games will be looked into later.)
- About 70-120GB+ disk space. (Strongly recommend an external drive!)
- Whisky or Crossover (Whisky is free, but might have issues. Crossover is paid, but uses later versions of WINE and is somewhat more reliable. YMMV.)

Linux/Steam Deck

Epic Games Store:

Game Setup (Heroic Launcher - EGS Version)

Heroic Launcher is an open source implementation of the Epic Games Store for Linux and other non-windows platforms. Running the official Epic client or a pirated copy will not be supported by this guide as they both introduce complications into the setup that could cause various issues.

1. Download the Heroic Launcher for your platform.

Heroic can be downloaded either as a Flatpak from your desktop environment's software store (recommended), or can be downloaded from your distribution's package manager if it is available. This guide only officially supports the Flatpak version, and support will not be provided for downloading any other release, but the installed version shouldn't cause any issues.

To download Heroic, open your desktop environment's respective software store and download the "Heroic Games Store". A link to the Flathub.org entry is also available below:

- <https://flathub.org/apps/com.heroicgameslauncher.hgl>

2. Install Kingdom Hearts 1.5+2.5 ReMIX from the Heroic Launcher.

Heroic's interface is relatively straightforward - simply log into your account and install the game.

3. Install the latest version of WINE-GE

In order to guarantee that the game works properly, you will want to use Heroic to install the latest version of Wine-GE.

To do so, click on the “Wine Manager” button and make sure that WINE-GE is selected in the tab interface. To download a WINE version, click on the Download icon under “Action”. You will typically want to download either Wine-GE-Latest or the latest Wine-GE-Proton8.

Proton-GE releases will also work, but keep in mind that these are not supported by this guide, especially if you wish to play Archipelago.

Note: WINE-GE has been discontinued and is in the process of being replaced. Therefore, do not expect a WINE-GE 9 release that isn’t Proton.

4. Launch the game at least once.

Important: The launcher does not yet work properly under Linux. You will be able to run the initial launcher, but games will not start and will loop back. We will get around this in a future step.

5. (Optional) Add your “KH_1.5_2.5 install directory as an additional drive under WINE.
 - a. Click on the “WineCfg” button in the Heroic Preferences window.
 - b. Click on the “Drives” tab.
 - c. Click on the “Add...” button. Select any drive letter you want in the following window.
 - d. Click on “Browse” and navigate to where your Kingdom Hearts 2 installation is located. (Default: /home/<username>/Games/Heroic)
 - e. Optionally, do the same thing with your OpenKH directory.
 - f. Click “Apply” then OK.”

This will create a drive letter to the location of your Kingdom Hearts 2 installation directory, which will simplify finding your installation in WINE later. This is not required.

Heroic: OpenKH/Randomizer

These steps are mostly the same as following the guide at the [KHRandomizer Website](#), but will be extrapolated here.

1. Download the latest openkh.zip from here: <https://github.com/OpenKH/OpenKh/releases>, then the Seed Generator, and .NET 6 Runtimes from the KHRandomizer Link above.
2. Extract your OpenKH.zip and Seed Generator somewhere easy to find on your computer. I prefer using an OpenKH directory next to wherever Heroic installed your copy of Kingdom Hearts.

3. Go to Heroic, click on the three lines under “Kingdom Hearts 1.5+2.5 ReMIX”.
4. Scroll down and take note of the “Run EXE On Prefix” button. You will use this button, either by clicking on it, or dragging an EXE to it. This is used for running the Modloader, Seed Generator or any other EXE that you need run/installed in Kingdom Heart 2’s prefix. (Look at the FAQ for what a Prefix is).
5. Run the .NET 6 Runtime installer (windowsdesktop-runtime-...) by finding it in the dialog box after clicking on the “Run EXE On Prefix” button, or by dragging it onto the “Run EXE On Prefix” button from your file manager.
6. Run the ModManager by running the “**OpenKh.Tools.ModsManager.exe**” file using the “Run EXE On Prefix” button. Follow the setup instructions in the KHRandomzier guide above, starting at “How To Setup The Mod Manager”.
 - a. During the “Game Edition” step, you can either use the Z: to access your Linux filesystem directly, or use the drive letter we set up previously.
 - b. The default installation directory is usually
Z:\home\<username>\Games\Heroic\KH_1.5_2.5
7. Run the KH2 Randomizer executable using the “Run EXE On Prefix” button. Follow the LuaBackend steps.

Heroic: Final Setup

This setup is completely specific to Linux and is required to get Panacea and the modloader working properly.

1. Navigate to your KH1.5_2.5 directory.
2. Rename the following files:
 - a. DBGHELP.dll -> VERSION.DLL
 - b. LuaBackend.dll -> DINPUT8.dll

Note: The LuaBackend rename step is required if you are running Wine 8. This is the result of a bug that prevents Panacea from chainloading the dll properly. Special thanks to [Kurumi78](#) on github for finding this workaround.

3. Open “WineCfg” by clicking on the “WineCfg” button in Heroic.
4. Select the “Libraries” tab.
5. Enter the following into the box under “New override for library:” field.
 - version
 - dinput8

Note: Scroll through the list. They should be shown as “<name> (native/builtin).”

6. Click Apply then OK.

7. To work around the launcher, we launch the games directly. In the Heroic configuration utility, click on the arrow next to Other, then click the folder next to “Select an Alternative EXE to run”. Locate the game you want to run in the KH1.5_2.5 directory.

- Kingdom Hearts 1: KINGDOM HEARTS FINAL MIX.exe
- Kingdom Hearts 2: KINGDOM HEARTS II FINAL MIX.exe
- Birth By Sleep: KINGDOM HEARTS Birth by Sleep FINAL MIX.exe
- Chain Of Memories: KINGDOM HEARTS Re_Chain of Memories.exe

Important: This will be required to run any version of the game, as of the time of writing the launcher does not currently work properly.

From this point, Panacea should be properly installed. You can install mods by rerunning the ModLoader (Run **OpenKh.Tools.ModsManager.exe** using the “Run EXE In Prefix” button). The process is largely the same as running in Windows.

Once you are done installing your mods or a randomizer seed, be sure to test the game by launching it. If your mods load as expected, then you are done. Enjoy your mods!

Steam:

Game Setup:

The Steam Version of Kingdom Hearts is largely install and go. It is recommended that you use a Proton-GE 9 release, obtainable from [this link](#). This guide will not go into installing custom Proton releases.

OpenKH/Randomizer:

- <Work In Progress>

Archipelago

Archipelago is completely usable but requires some additional setup.

Heroic/Epic Games Store

1. Download the latest version of the **Windows** Archipelago client from the Archipelago github: <https://github.com/ArchipelagoMW/Archipelago/releases>
 - Setup.Archipelago.<version>.exe
2. Use the “Run EXE In Prefix” button to install the Archipelago client.

- In the installer, uncheck everything except for the “Kingdom Hearts 2” client.
- 3. Download the following batch file from the following link:
<https://gist.github.com/TauAkiou/605b3dc168efcdbcef4fc14c7c7ac38b>
 - a. Save it as “LaunchKH2AP.bat” in your Kingdom Hearts installation folder.
 - b. You will need to edit it to change the
 <path_to_your_kingdom_hearts_2_directory> to point to your kingdom hearts 2 installation path.
 - c. Example: /home/deck/Games/Heroic/KH21.5_2.5
- 4. Return to the “Select an alternative EXE to run” field and select the LaunchKH2AP.bat file.
- 5. Attempt to launch the game. Both the Archipelago client AND Kingdom Hearts 2 should launch.

Once this is all done, you can close the game and install your seed as normal. Be sure to install all accompanying mods before starting your game!

If a new Archipelago update is released, download the latest client and install it in the same way as before.

FAQ:

Q: When attempting to launch the ModLoader, I get a black window.

A: You are not using Wine 8. Make sure that you have a Wine 8 version selected.

Q: What is a WINE Prefix?

A: A WINE Prefix is a “virtual”, self-contained windows installation that WINE uses to run your Windows games. Each prefix is discrete and contains its own settings, libraries, and processes. One prefix cannot see processes in another WINE prefix.

Q: Kingdom Hearts 2 hangs on launch after renaming DBGHELP.dll to VERSION.dll

A: You forgot to rename “LuaBackend.dll” to “DINPUT8.DLL”. This is the result of a bug in Wine 8 that prevents LuaBackend from loading the normal way.

Q: Kingdom Hearts 2 crashes after I rename DBGHELP.dll to VERSION.DLL

A: You are using an older version of Panacea. Make sure your copy of Panacea is up to date, as some older versions may not support VERSION.DLL hooking.

Q: Why isn't there a native KH2 Archipelago client for Linux/Why doesn't the Linux KH2 Archipelago client work?

A: The KH2 Client for Archipelago relies on tapping, reading, and writing process memory. Linux is not readily supported in the PyMem library, so the client simply does not work. Cross-process memory manipulation is also restricted by modern kernels for security reasons, which cannot be

easily worked around without giving the client root or *every python program* on the system the ability to read memory from other processes.

It is safer to use the Archipelago client for Windows as when run properly it can see the Kingdom Hearts 2 process without requiring root access.