

Flatpak

Flatpak is a portable software packager for native Linux software deployment. It has been designed to offer a sandbox environment in which users can run applications in isolation from the rest of the system. This means that Flatpak software can run on virtually any Linux distribution... including Batocera.

This is currently supported only for x86_64, as most Flatpak packages are only provided for Linux on the x86/x86_64 platform.

Although we aim to have all Flatpaks functioning, we can't guarantee 100% compatibility; audio tends to be a common issue. Report any issues you find to our Github/Discord server (check for duplicates first).

Common issues: no PS4 controller support, cannot install Flatpaks if using a NAS for your SAVES directory, audio is absent on some configurations, some games think the D-pad is eternally being pressed down on certain controllers, apps that depend on opening the file browser crash upon doing so, etc.

If you still want to use a NAS for the rest of your systems' saves, Flatpaks can still be installed to internal storage as a workaround.

Steam now has its own dedicated page!

This system scrapes metadata for the “flatpak” group and loads the `flatpak` set from the currently selected theme, if available.

Grouped with the “ports” group of systems.

Quick reference

- **Emulator:** Flatpak
- **Folder:** `/userdata/roms/flatpak`
- **Accepted ROM formats:** `.flatpak`

Application files

Unlike with most systems, Flatpaks aren't actually installed to its ROM folder at `/userdata/roms/flatpak`. No no, here only the shortcuts to them are stored. The actual Flatpaks themselves are installed to the SAVEs folder at `/userdata/saves/flatpak`.

How to install a Flatpak

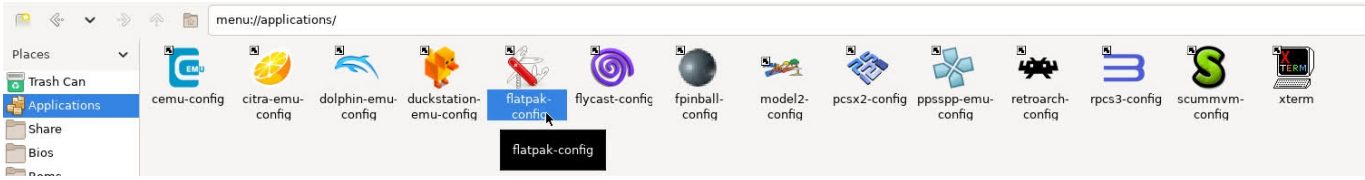
Using flatpak-config

On Batocera **v31**, if this is your first time using Flatpak on the system, you'll have to add the repository first. One of the most popular is the Flathub repo. To do that, first connect to your Batocera via SSH or use xterm (`[F1]` on system list → **Applications**) and run the following command (while connected to the internet):

```
flatpak remote-add --if-not-exists flathub
https://flathub.org/repo/flathub.flatpakrepo
```

Batocera **v32** and higher already have this set as the default repository.

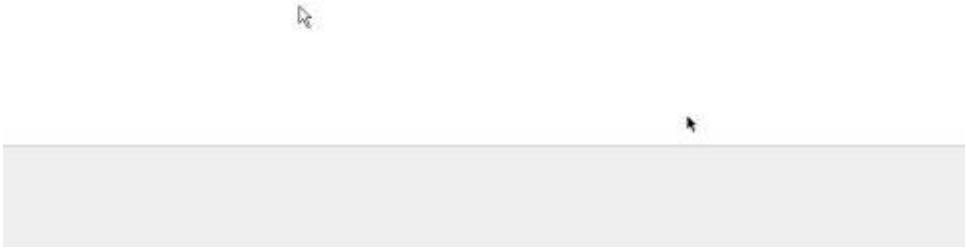
In Batocera **v32** and higher, you can then launch `flatpak-config` from the file manager (`[F1]` → Applications) to search for and install Flatpaks.





Two cursors on-screen?

> There's a bug affecting **v32** where two cursors are displayed. The one you're controlling is the white one. This has since been fixed.



This is also where you would upgrade your packages in the future.

Using the terminal/SSH

First of all, you need to connect to Batocera through SSH.

Then, you need to add your Flatpak remote repo to the system. One of the most popular is the Flathub repo.

```
 flatpak remote-add --if-not-exists flathub
https://flathub.org/repo/flathub.flatpakrepo
```

Once your repo is added, you can search for the software you want to install. In our example here, we are going to install Steam. So, let's search for it:

```
flatpak search Steam
```

```
 Name               Description                                  Application ID
Version       Branch Remotes
 Steam              Manage and play games distributed by Ste?
com.valvesoftware.Steam          1.0.0.70      stable flathub
 Boxtron            Compatibility tool to run DOS games on S?
?Steam.CompatibilityTool.Boxtron               stable flathub
 vkBasalt           A Vulkan post processing layer for Linux
?software.Steam.Utility.vkBasalt 0.3.2.4       stable flathub
 protontricks       A simple wrapper that does winetricks th?
?ware.Steam.Utility.protontricks 1.5.2         stable flathu
 (...)
```

The piece of software we want to install, Valve's Steam client, is the first one. It can be installed with:

```
flatpak install com.valvesoftware.Steam
```

```
 Looking for matches?
 Found similar ref(s) for ?com.valvesoftware.Steam? in remote ?flathub?
(system).
 Use this remote? [Y/n]: Y
 Required runtime for com.valvesoftware.Steam/x86_64/stable
(runtime/org.freedesktop.Platform/x86_64/20.08) found in remote flathub
 Do you want to install it? [Y/n]: Y

 com.valvesoftware.Steam permissions:
   ipc                              network                 pulseaudio
wayland
   x11                              devices                 bluetooth
devel
   multiarch                        per-app-dev-shm         file access [1]
dbus access [2]
   system dbus access [3]           tags [4]
  [1] xdg-music:ro, xdg-pictures:ro, xdg-
run/app/com.discordapp.Discord:create
  [2] org.freedesktop.Notifications, org.freedesktop.PowerManagement,
org.freedesktop.ScreenSaver,
      org.gnome.SettingsDaemon.MediaKeys, org.kde.StatusNotifierWatcher
  [3] org.freedesktop.UDisks2, org.freedesktop.UPower
  [4] proprietary
        ID                                          Branch          Op
Remote           Download
 1.     org.freedesktop.Platform.Compat.i386        20.08           i
flathub          < 152.6?MB
 2.     org.freedesktop.Platform.GL.default         20.08           i
flathub          < 106.4?MB
 3.     org.freedesktop.Platform.GL32.default       20.08           i
```

```
flathub          < 114.1?MB
 4.     org.freedesktop.Platform.Locale               20.08          i
flathub          < 322.2?MB
 5.     org.freedesktop.Platform.VAAPI.Intel          20.08          i
flathub           < 11.6?MB
 6.     org.freedesktop.Platform.openh264             2.0            i
flathub            < 1.5?MB
 7.     org.freedesktop.Platform                      20.08          i
flathub          < 268.1?MB
 8.     com.valvesoftware.Steam                       stable         i
flathub           < 13.5?MB

 Proceed with these changes to the system installation? [Y/n]

        ID                                            Branch         Op
Remote           Download
 1. [?] org.freedesktop.Platform.Compat.i386          20.08          i
flathub          140.4?MB / 152.6?MB
 2. [?] org.freedesktop.Platform.GL.default           20.08          i
flathub          105.8?MB / 106.4?MB
 3. [?] org.freedesktop.Platform.GL32.default         20.08          i
flathub          113.8?MB / 114.1?MB
 4. [?] org.freedesktop.Platform.Locale               20.08          i
flathub          140.6?MB / 322.2?MB
 5. [?] org.freedesktop.Platform.VAAPI.Intel          20.08          i
flathub           11.5?MB / 11.6?MB
 6. [?] org.freedesktop.Platform.openh264             2.0            i
flathub            1.5?MB / 1.5?MB
 7. [?] org.freedesktop.Platform                      20.08          i
flathub          222.5?MB / 268.1?MB
 8. [?] com.valvesoftware.Steam                       stable         i
flathub           12.3?MB / 13.5?MB

 Installation complete.
```

Now, the Flatpak package is installed, but you need to tell Batocera to show it up in the EmulationStation menu (under **Ports**):

```
batocera-flatpak-update
```

```
adding Steam
updating permissions on files.
```

Manually placing the files

Let's say you've got yourself a fine and dandy Flatpak package in its physical folder form and you want to tell Batocera to just use that instead of searching for it in a repository. This is simple:

1. Move the folder containing your Flatpak package to `roms/flatpak/`
2. Then just run `flatpak install <name of package>`

So for example if I had `emby-theater-snap_3.0.15_amd64`, I would move it to `roms/flatpak/emby-theater-snap_3.0.15_amd64` and then run:

```
flatpak install emby-theater-snap_3.0.15_amd64.snap
```

Updating Flatpak packages

Updating Flatpak packages is simple: open `flatpak-config` and click **Upgrade**. All applicable packages will be updated to their latest version. You may be asked to reboot.

Alternatively, this can be done by running the following command via SSH:

```
flatpak update
```

Type in Y and hit `[Enter]`.

Uninstalling Flatpak packages

☹ A sometimes necessary evil.

You can use the same `flatpak-config` tool to remove them or run the command:

```
flatpak uninstall <name-of-package-here>
```

Don't worry about spelling the package's name precisely, Flatpak will search your system for matching results and ask you if it's the correct one to uninstall first.

Unfortunately, for now at least, the `.flatpak` file from the `/userdata/roms/` directory must be removed manually in order to remove the entry from your game list too.

Cleaning unused Flatpak packages

This command used to be buggy on **v32** and below, it is not advised to use it on older Batocera versions. Link to the related issue report.

So you've been using Flatpak packages for a while now, you may have noticed that some applications need to install “runtimes” and other libraries to function. It's safe to leave these packages, and even multiple versions of the same package even, on a system after you no longer need the package that initially installed it. However over time they can take up quite some space, especially if you've been installing and uninstalling games as you play through them.

So you could uninstall these packages one by one, but that would take an inordinate amount of time especially if you have to shift through which packages are *really* no longer required and which ones are. There's a simple command you can run instead to do all that for you:

```
flatpak uninstall --unused
```

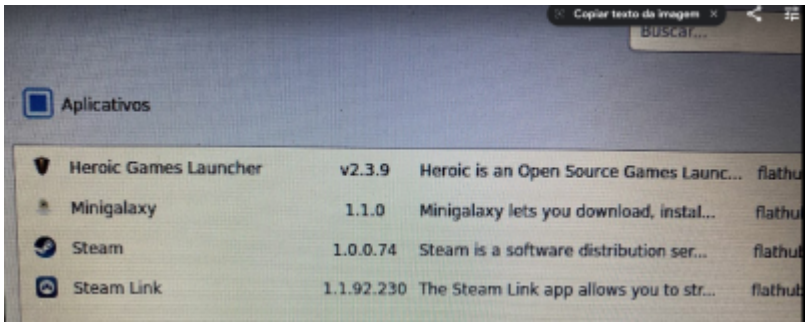
Heroic Games Launcher (Epic Games store)

Heroic Games Launcher is an open-source launcher available on Flathub which supports launching games from the Epic Games Store using Legendary and GOG Games. Unfortunately this launcher is not as fully integrated into Batocera as Steam is so some manual work is required.

Install

If you already have the Heroic Launcher Flatpak package installed, it will conflict. Uninstall it first.

Search for “Heroic Games Launcher” and install it.



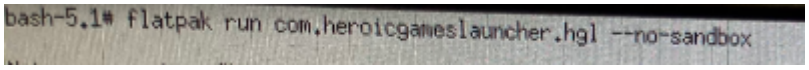
To do so from SSH:

```
flatpak install com.heroicgameslauncher.hgl
batocera-flatpak-update
```

Launch Heroic Games Launcher

The Heroic Games Launcher Flatpak is bugged and will not launch correctly using the default flags. You **must** launch via SSH using the following command:

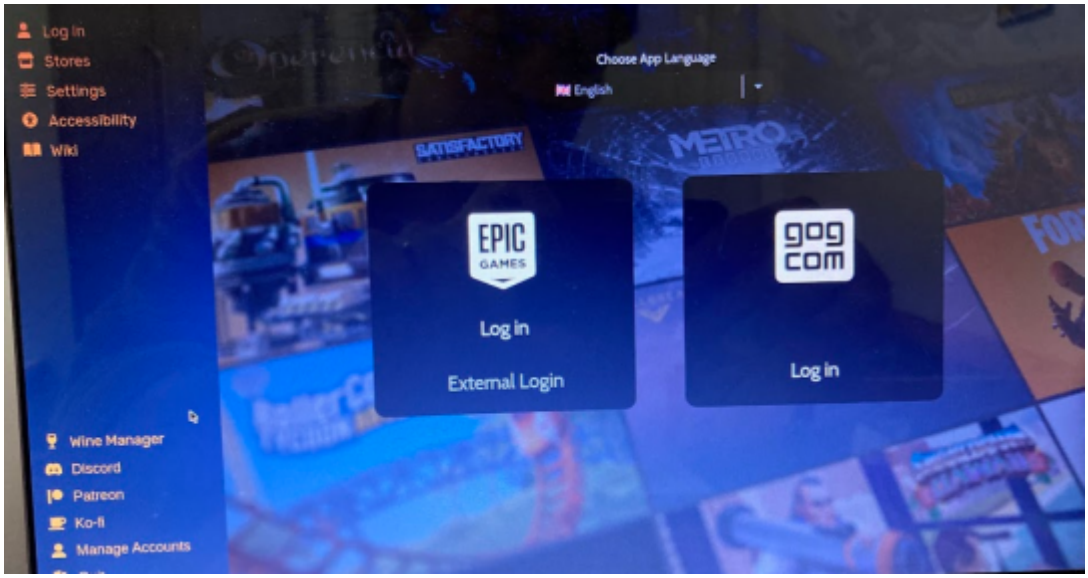
```
flatpak run com.heroicgameslauncher.hgl --no-sandbox
```



This may be worked around in the future.

Login

Heroic Games Launcher will offer two services to login to. Log in to the appropriate one (or select **Manage Accounts**):

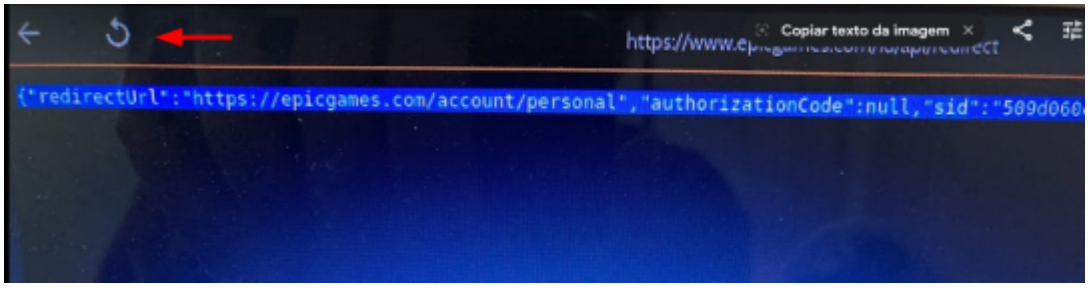


As alternative for Epic Store login, the External Login is available, this way you have to inform your Epic Store Account SID to log in properly.

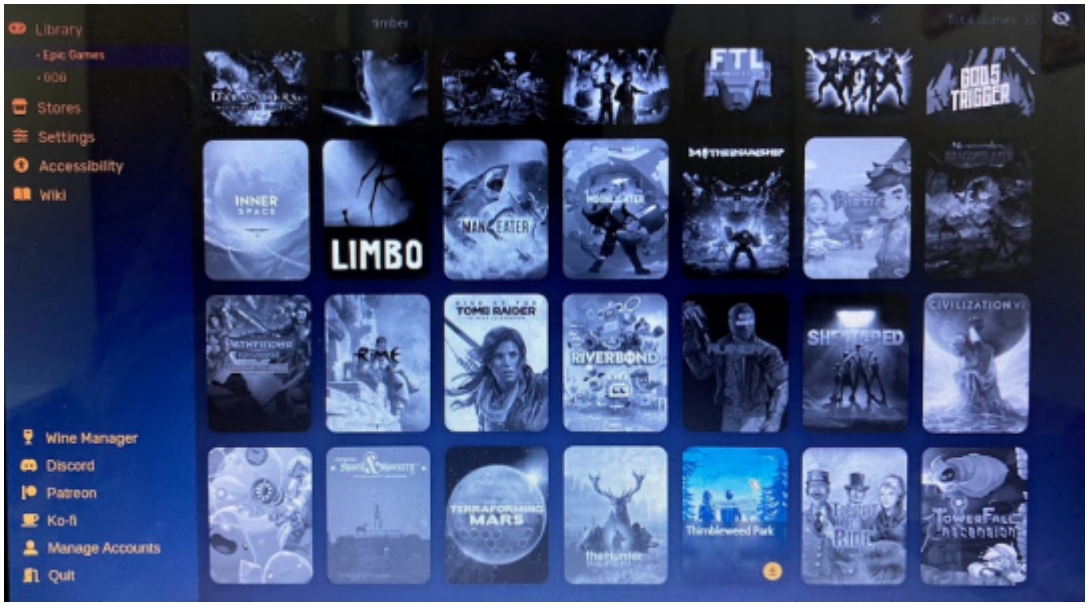
“Use RIGHT ALT + 2 keys to input @ and ; or SHIFT + ; to input - or _”

What does this mean? Is it just a problem with your keyboard specifically or is this another bug with the software?

If the log in fails, press the reload symbol at the top of the launcher window to try again.

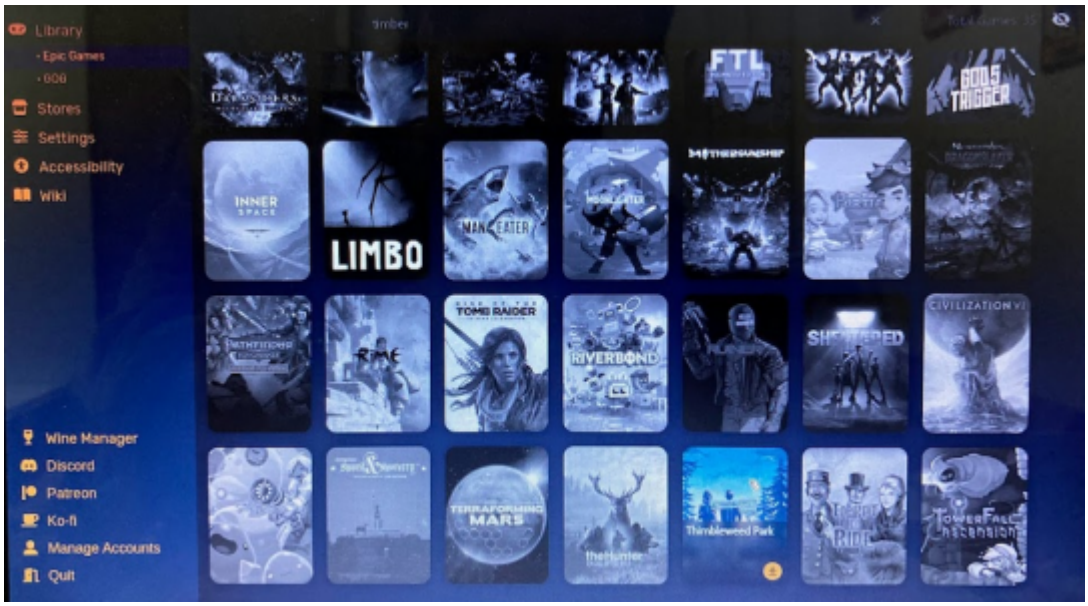


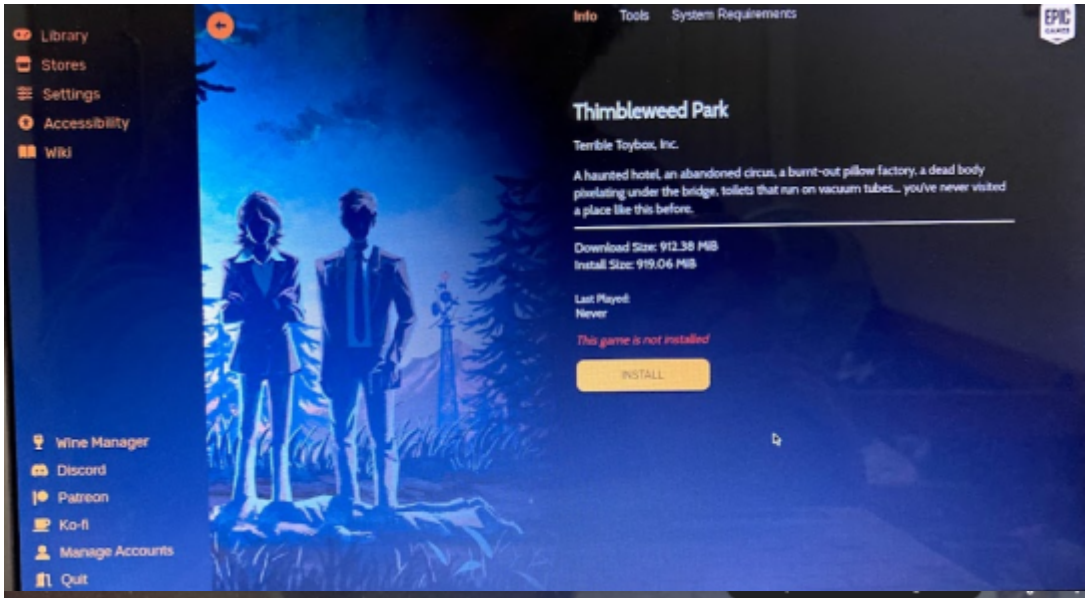
Your games will appear in the **Library** split between **Epic Games** and **GOG**. It could take a while to download all games' information and boxart.

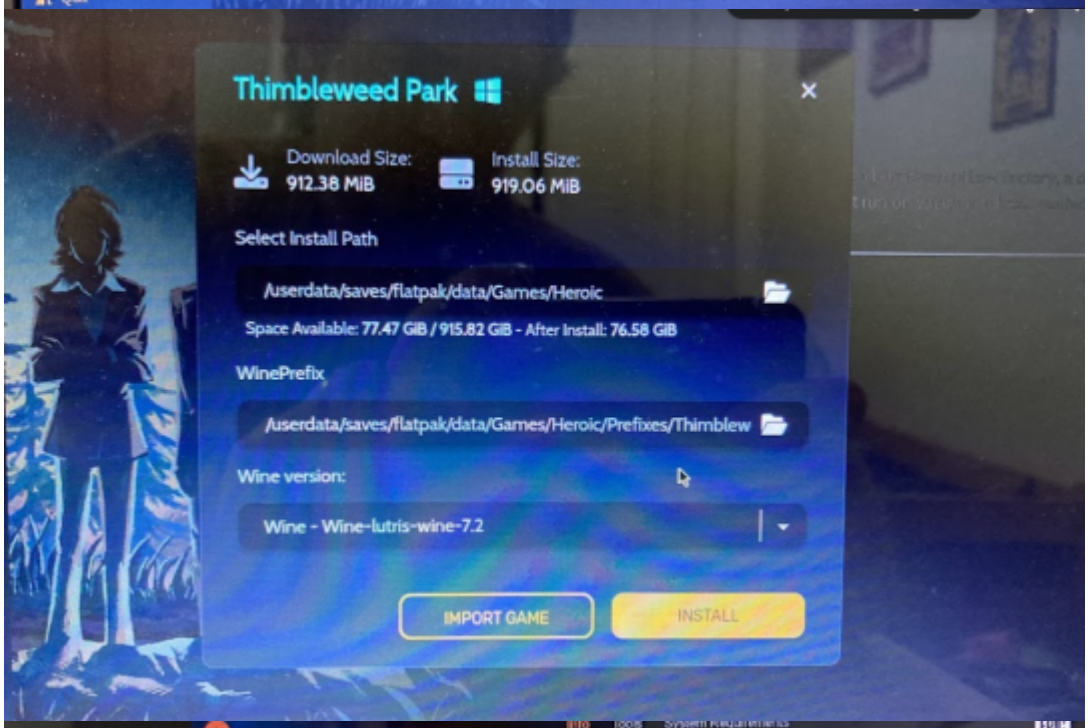


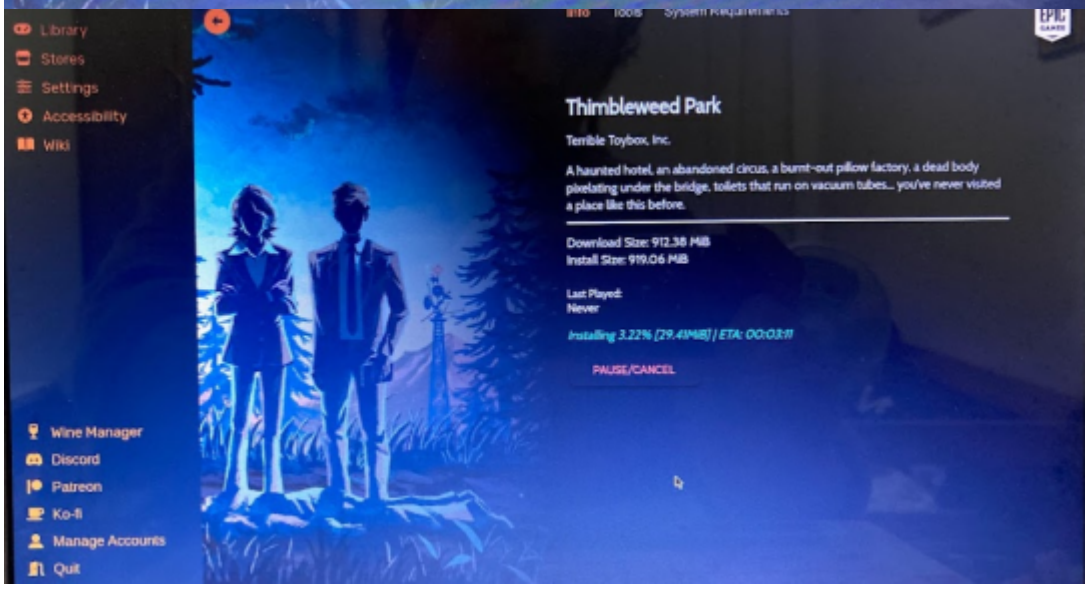
Download Game

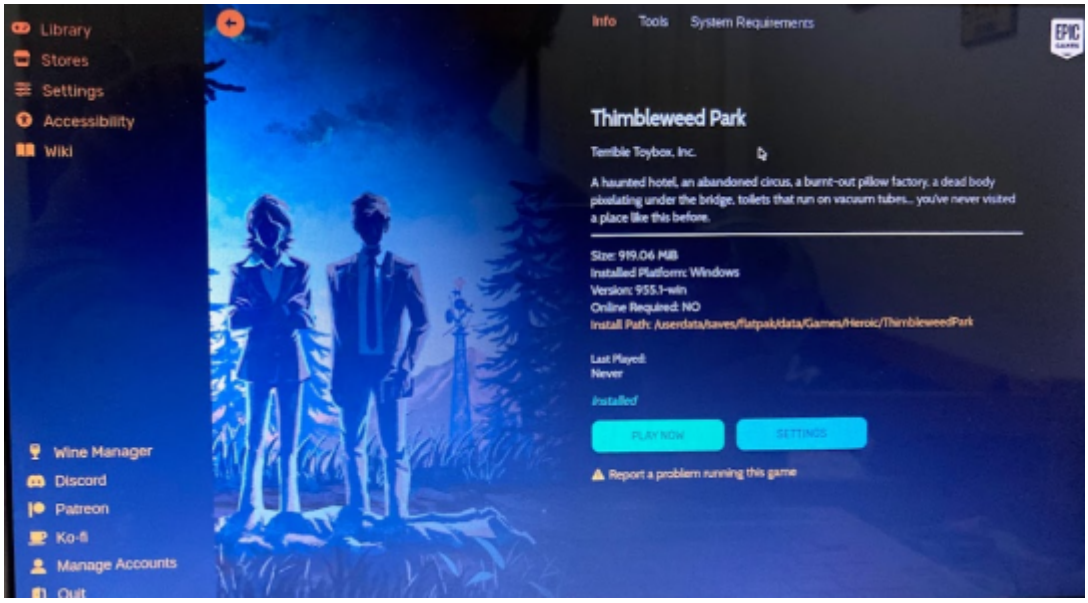
1. Go to **Library**
2. Select the game
3. Select **Install**



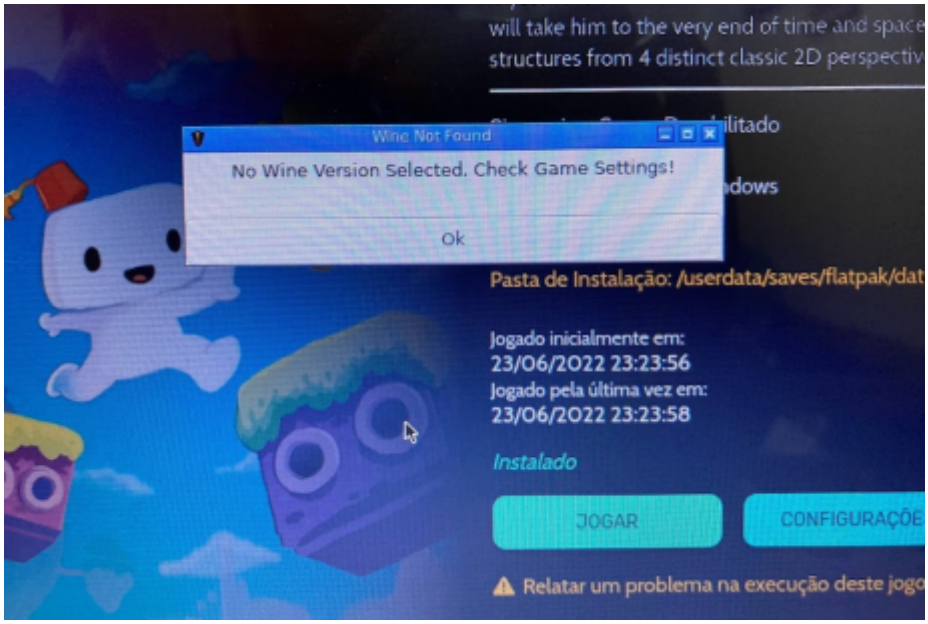

Library
Stores
Settings
Accessibility
Wiki
Wine Manager
Discord
Patreon
Ko-fi
Manage Accounts
Quit
Info
Tools
System Requirements
Thimbleweed Park
Terrible Toybox, Inc.
A haunted hotel, an abandoned circus, a burnt-out pillow factory, a dead body pixelating under the bridge, toilets that run on vacuum tubes... you've never visited a place like this before.
Download Size: 912.38 MiB
Install Size: 919.06 MiB
Last Played:
Never
This game is not installed
INSTALL

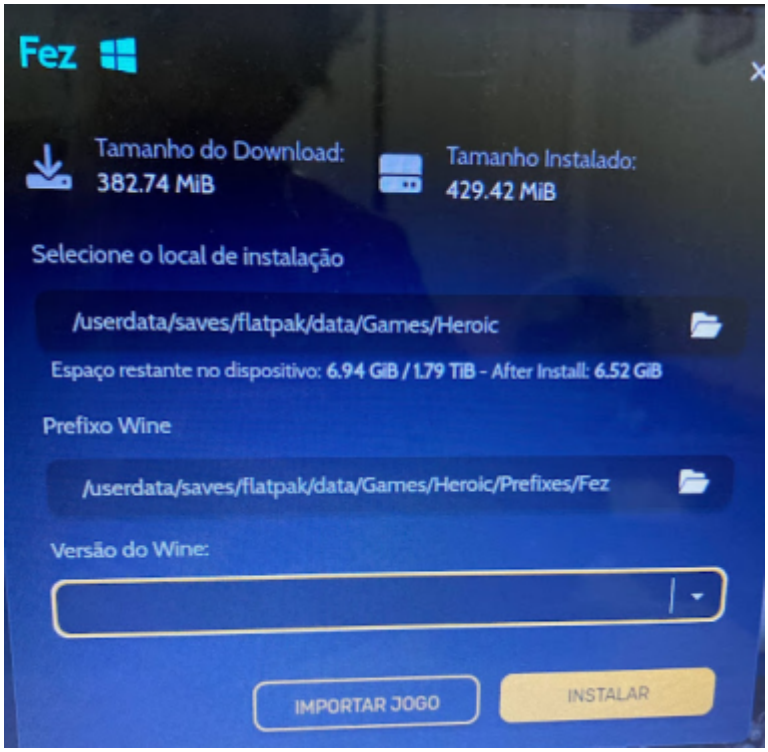

Thimbleweed Park
Download Size:
912.38 MiB
Install Size:
919.06 MiB
Select Install Path
/userdata/saves/flatpak/data/Games/Heroic
Space Available: 77.47 GiB / 915.82 GiB - After Install: 76.58 GiB
WinePrefix
/userdata/saves/flatpak/data/Games/Heroic/Prefixes/Thimblew
Wine version:
Wine - Wine-lutris-wine-7.2
IMPORT GAME
INSTALL


Library
Stores
Settings
Accessibility
Wiki
Wine Manager
Discord
Patreon
Ko-fi
Manage Accounts
Quit
Thimbleweed Park
Terrible Toybox, Inc.
A haunted hotel, an abandoned circus, a burnt-out pillow factory, a dead body pixelating under the bridge, toilets that run on vacuum tubes... you've never visited a place like this before.
Download Size: 912.38 MiB
Install Size: 919.06 MiB
Last Played:
Never
PAUSE/CANCEL



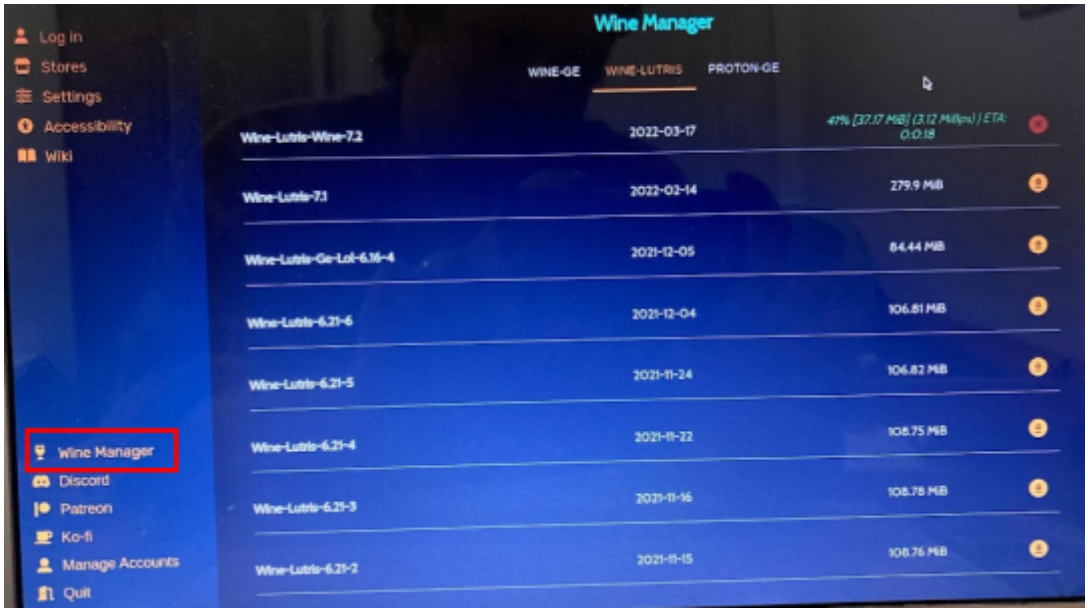
Windows games will need to have their intended version of WINE selected.





Install Wine (for Windows games)

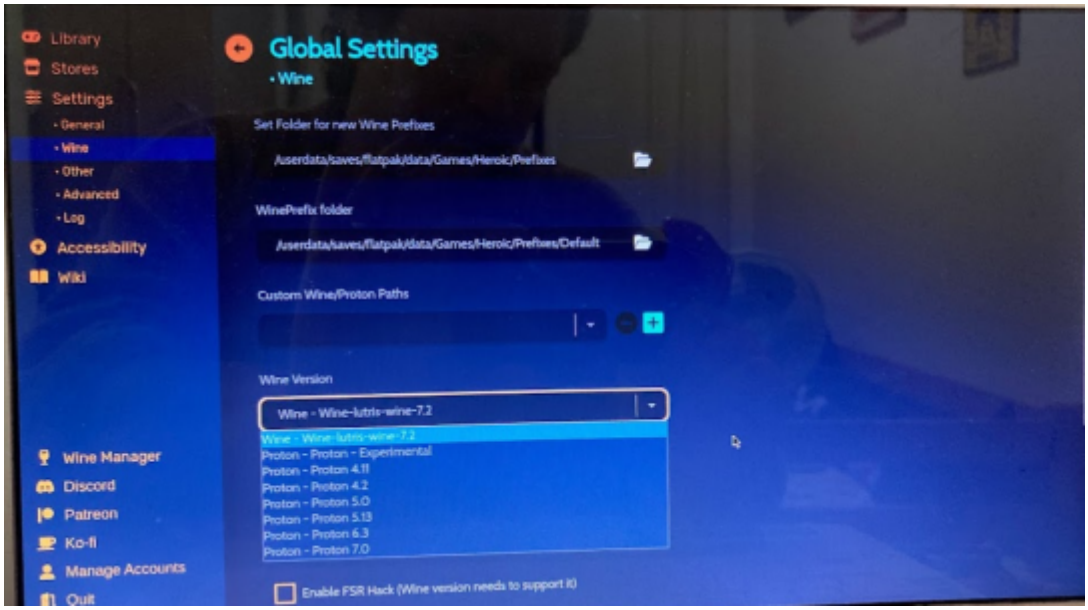
1. Select **Wine Manager**
2. Select the desired version of Wine to be downloaded: “Wine-GE”, “Wine-Lutris” or “Proton-GE”



Is there any preferred version of Wine to install or are you instructing the user to download them all?

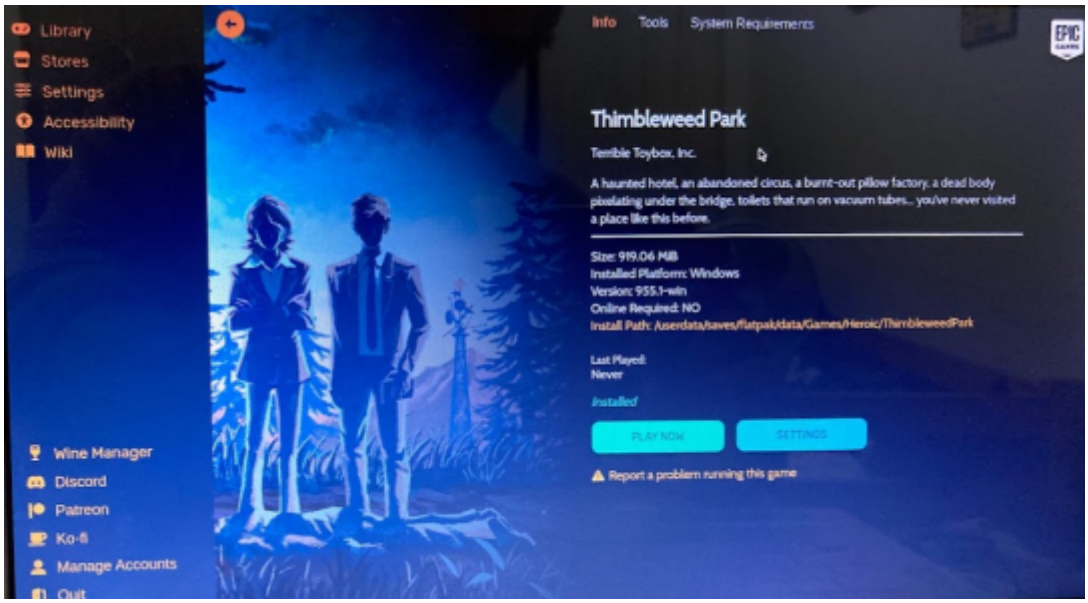
Global Wine setting

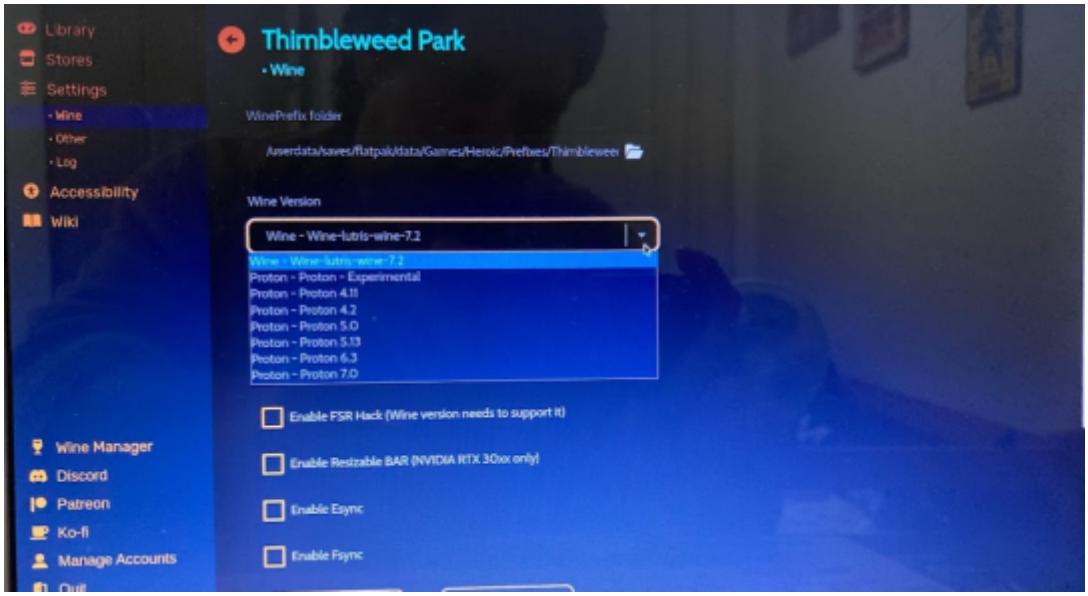
1. Go to **Settings** → **Wine** → **Wine Version** and select the desired version of Wine.



Per game Wine setting

1. Go to **Library**
2. Select the downloaded Windows game
3. Go to **Settings**
4. Select the desired version of Wine to use for that game.



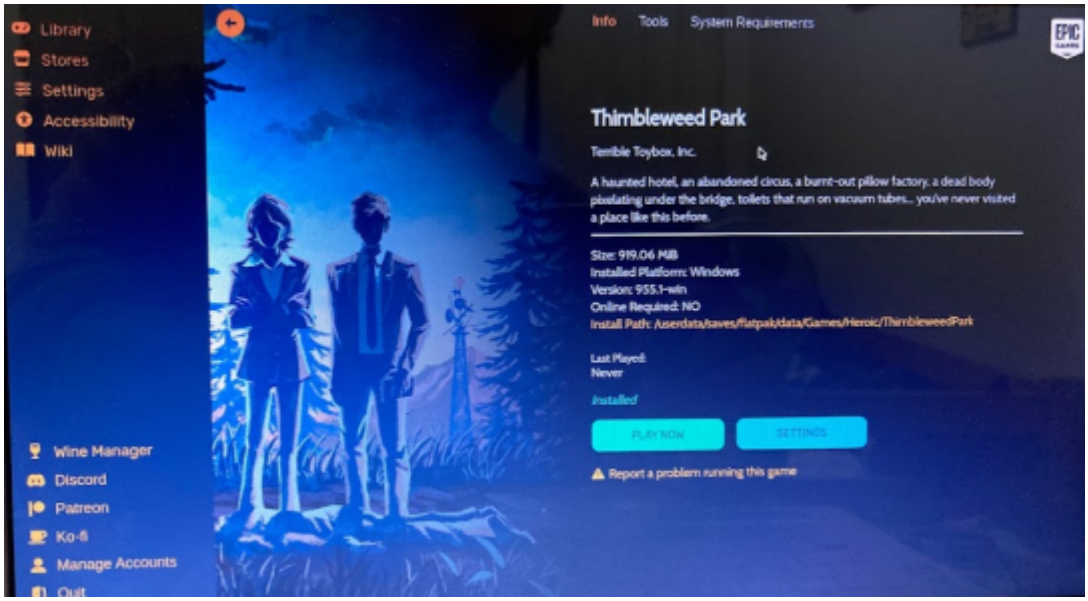


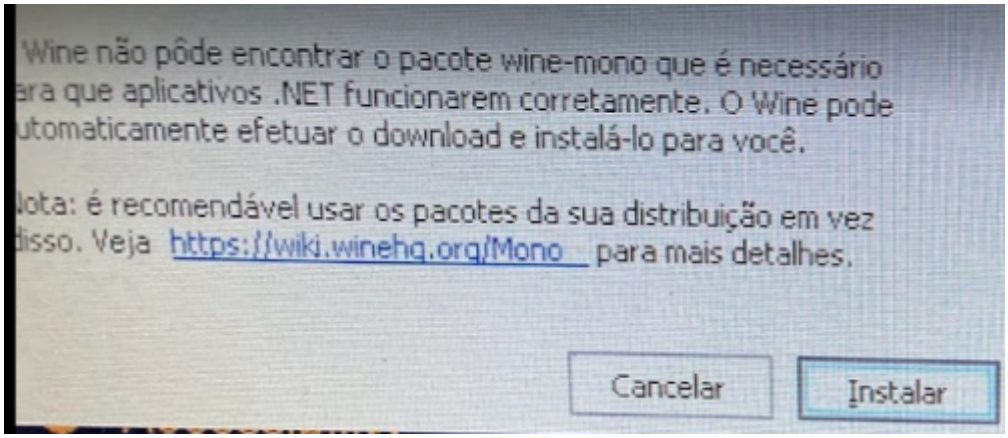
Launch game

1. Go to **Library**
2. Select a downloaded game
3. Select **PLAY NOW** (Windows games require Wine to be set up first)
    - Heroic Games Launcher will say “Opening the Game…” and then eventually “Playing (STOP)”

      Games may take a while to initially launch as they need to compile shaders for your hardware.

4. If playing a Windows game, confirm the Wine installation dialogue box.
5. Game start!





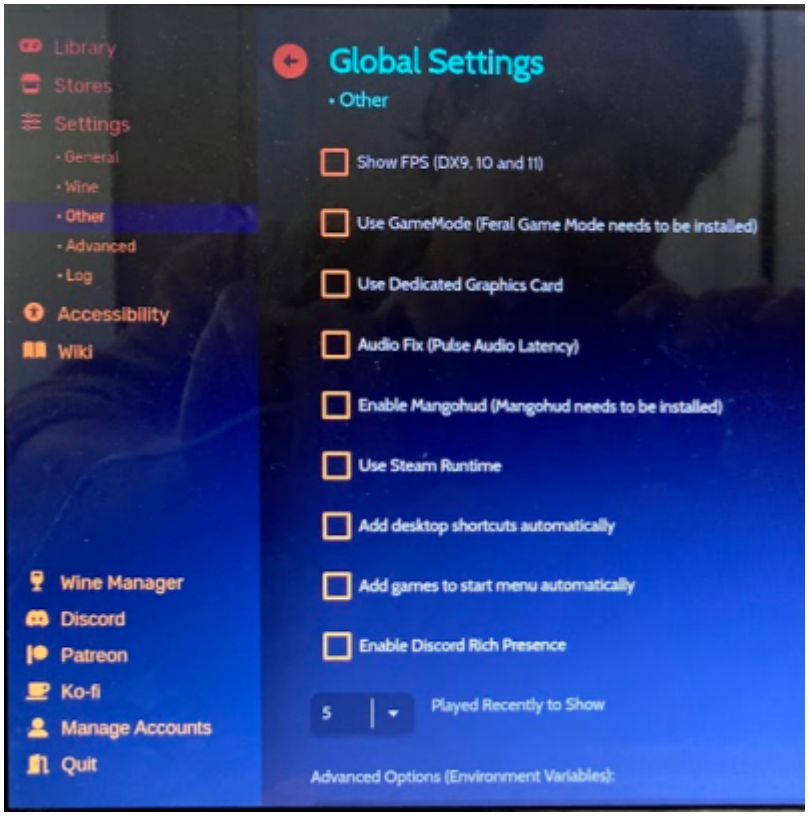
Right now, Batocera isn't integrated to Heroic Games Launcher; its games will not be automatically added and launchable with EmulationStation like Steam does. This may change in the future.

Uninstall a game

1. Go to **Library**
2. Select an installed game
3. Select **Tools** at the top of the window
4. Select **Uninstall**

Other option

1. Go to **Settings**
2. Select **Other**
3. For Gamepad: Select User GameMode (No need to enable it to use Gamepad!) (Fix Me! so why mention this setting? What is it for?)
4. For GPU: Select “Use Dedicated Graphics Card” (Enable if necessary) (Fix Me! when is this not necessary?)
5. For FPS: Select Show FPS (Fix Me! this whole section might not be necessary)

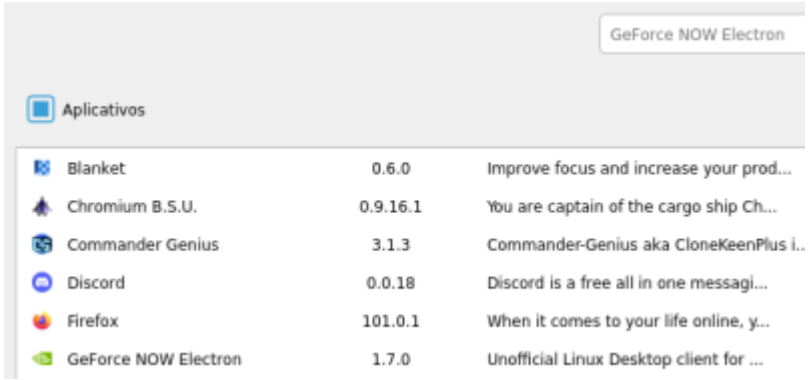


GeForce NOW Electron

GeForce NOW Electron is an open-source launcher available on Flathub which supports launching games from the GeForce NOW using Legendary and some Steam, Epic Store and Ubisoft Games. Unfortunately this launcher is not as fully integrated into Batocera as Steam is so some manual work is required.

Install

Search for “GeForce NOW Electron” and install it.



To do so from SSH:

```
flatpak install flathub io.github.hmlendea.geforcenow-electron
batocera-flatpak-update
```

Launch GeForce NOW Electron

The GeForce NOW Electron Flatpak is bugged and will not launch correctly using the default flags. You **must** launch via SSH using the following command:

```
flatpak run io.github.hmlendea.geforcenow-electron --no-sandbox
```

This may be worked around in the future.

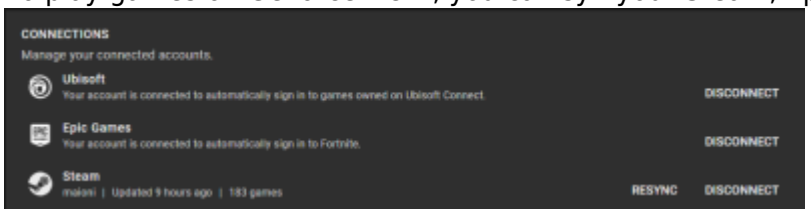
Login

GeForce NOW Electron many ways to log in, but the only one that may works for now is the email and passwrod log in due to te lack of a securety connection in this flatpak application. Make sure you can log in in regular GeForce NOW with only your email and password.

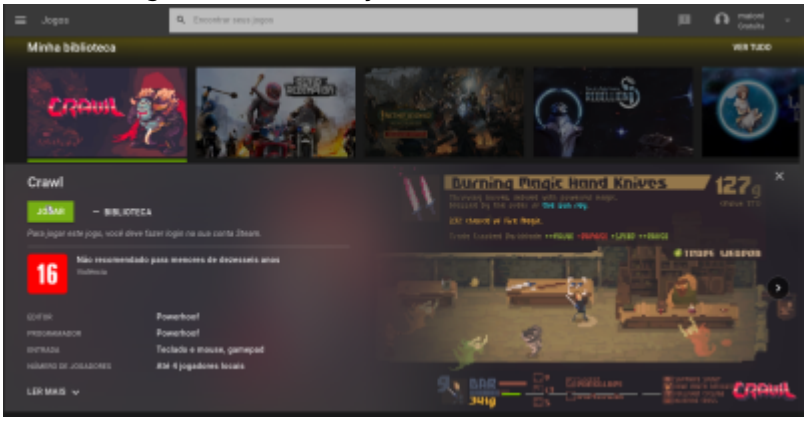
1. So, create a ABYA account with email and password.
2. And log in into GeForce NOW Electron with an ABYA account with the email and password options.

Play Games

To play games on GeForce NOW, you can syn your Steam, Epic Store and Ubisoft stores.

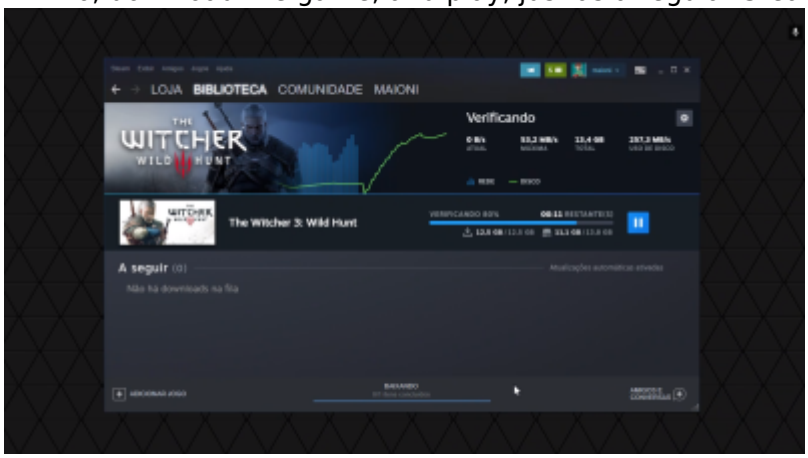


1. Goes to Settings and sync your accounts
2. Select the game into Library and select to PLAY it.



1. **PAID plan**s: You will play as soon as possible.
2. **FREE plans**: you will be waiting in a line to be able to play the game and for a couple of minutes when ready (around 20 minutes) [So, do not quit game until time ends, otherwise the game's session will shutdown before that!]. Also do not schedule a game you don't have on your library, e.g. The Witcher 3 has it's versions for Steam, Gog and Epic Store, if you have it on Steam but opens the Epic Store version, you can't play the game! This way, you will have to finish your game section, and open the correct version and wait

again in line.

3. After you get access to the GeforceNOW virtual machine, you will be pop up with the game's store application, log in into, download the game, and play, just as a regular Steam, Epic Store or Ubisoft softwares. 

4. It supports Gamepad, even if the tools indicate it have no controller connected to it (just make sure the game you selected has support, or play it with a mouse/keyboard plug-in).

Freely distributed games

Here are some lists of freely distributed Linux games!

Controls

Here are the default controls used in Flatpak games shown on a Batocera Retropad:

Obviously, applications designed for a mouse and keyboard interface will probably only work when those are connected.

Troubleshooting

My Flatpaks (including Steam) won't launch!

Try one of the following:

- Update your game list: **Main Menu → Game Settings → Update Gamelists**.
- Flatpaks currently do not work on a NAS, if you are using a NAS try switching to internal storage.
- SSH into Batocera and run the following: `batocera-flatpak-update`
- If you are on an older Batocera version (like **v31** or lower) it might be a permissions issue.
    1. Press `[F1]` on your keyboard to enter into File Manager
    2. Ensure you are in the Share folder (left in the sidebar)
    3. Navigate to the `saves` folder

4. Select everything by pressing `[Ctrl] + [A]`
5. Right-click and go to **Properties**
6. Click on the “Permissions” tab
7. Click on “View Content:” and choose “Anyone”
8. Click on “Change Content:” and choose “Anyone”
9. Click on “Access content:” and choose “Anyone”
10. Click on “OK”
11. Reboot and try it

My game is running really slowly

- If using a Nvidia GPU, make sure your official Nvidia graphics drivers are enabled and functional.
  - Sometimes, Flatpak will “forget” that you have drivers and will need to “redownload” them (you'll find Steam is suddenly lagging in its menus). Run `flatpak update` in the SSH and if it starts downloading `org.freedesktop.Platform.GL.nvidia-###-##-##` then that is what happened.
- Try reinstalling the game and ensure all of its dependencies are sorted out, with no errors.
- PC games in general (especially ones that were ported from home consoles *to* PC) can be buggy. Check out the PCGamingWiki for general tips, settings configurations, launch commands and patches you can apply to fix the game (just keep in mind it's focused on Windows, not Linux (and thus, not Batocera) so a lot of external programs/patches won't be compatible).

My controls in-game are not working

Unfortunately some games are just garbage at supporting certain controllers. Refer to the PCGamingWiki for general tips, but if you're still struggling to get your controller recognized by the game, see if it would be possible to get the game running from Steam. Once that's done, it should be possible to use Steam to configure the controls, allowing you to use any controller that would be compatible with Steam instead.

Further troubleshooting

For further troubleshooting, refer to the generic support pages.

From:
https://wiki.batocera.org/ - **Batocera.linux - Wiki**

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Last update: **2022/06/26 05:07**