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 Flatpaks 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

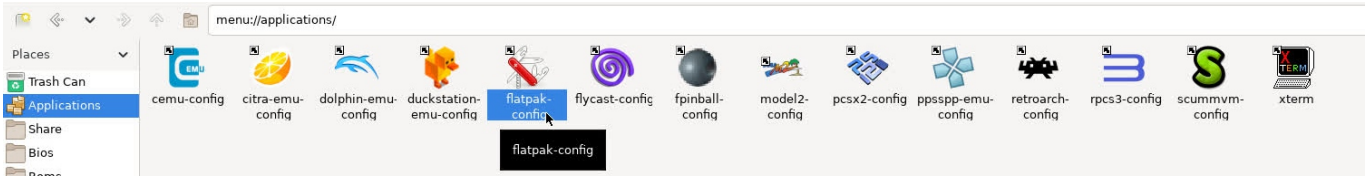
Using flatpak-config

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):

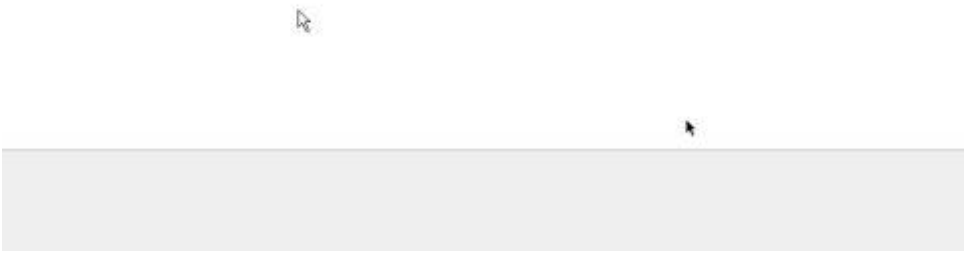
```
# flatpak remote-add --if-not-exists flathub
https://flathub.org/repo/flathub.flatpakrepo
```

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.



There's a bug affecting **v32** where two cursors are displayed. The one you're controlling is the white one. This will be fixed in a future version.



Click the **Upgrade** button to update all installed flatpaks to their latest version. Restart when it prompts you to.

Using the terminal/SSH

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

Then, you need to add your Flatpak sources 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 is 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
```

Uninstalling Flatpaks

☹ 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 Flatpaks

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 Flatpaks 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.

It is possible to log into Epic Games using the SID, but GOG logins work fine.

Cleanup, Download and Install

Clean Up

Uninstall Heroic Launcher (necessary due to flatpak-config not been updating it to the last version)
https://wiki.batocera.org/systems:flatpak?s[]=flatpak#uninstalling_flatpaks

Download and Install

From BATOCERA: https://wiki.batocera.org/systems:flatpak?s[]=flatpak#how_to_install_a_flatpak

1. Open the file manager [F1]:
2. Goes to application and open flatpak-config
3. Search for Heroic Games Launcher, select to install it and confirm
4. Once installed, close the flatpak-config, and open the xterm
5. Run the code below to give files permission:

```
batocera-flatpak-update
```

From SSH: https://wiki.batocera.org/systems:flatpak?s[]=flatpak#using_the_terminal_ssh

1. Run the code bellow to install Heroic Games Launcher:

```
flatpak install com.heroicgameslauncher.hgl
```

1. Confirm the prompts.
2. Once installed, give files permission with:

```
batocera-flatpak-update
```

Launch Heroic Launcher

Right now, Batocera isn't integrated to Heroic Games Launcher, and it will not be launched with Emulation Station, we need to launch it using some command lines

1. Run the bellow code from SSH or Batocera's file manager:

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

1. Check the application executing on Batocera

1. Navigation: Navigation can be used with a Plugin GamePad or Keyboard or Mouse

1. Gamepad
2. Move: Left Analogic of D-Pad
3. Scroll: Right Analogic
4. Confirm: A button (south button)
5. Back: B button (east button)

1. Keyboard:
2. Move: Arrows keys
3. Confirm: ENTER
4. Back: ESC

1. Mouse:
2. Move: Mouse Move
3. Scroll: Mouse Scroll
4. Confirm: Left Ckick

Login

1. Heroic Games Launcher will starts showing the login page, with Epic and GOG options. (Or select MANAGE ACCOUNTS)
2. Select EPIC or GOG and inform email and password, followed by the security code (if two-step is setup into your account) [Use RIGHT ALT + 2 keys to input @ and ; or SHIFT + ; to input - or _].

If the log in fails, just press the RELOAD button to try again.

1. Your games will be loaded into Library: Epic and GOG. It could take a while to download all game's information and resources like covers.

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.

Download Game

1. Goes to Library (needs to be previously log in)
2. Select the game
3. Select install
4. For windows games: select the wine version used (how to install Wine)

Windows Games can't loads right now due to the lack of Wine. Let's go install it on Wine section bellow!

Epic Games are windows games, and need Wine to launch. Gog Games are available as windows and linux games, the linus games will not need Wine to launch.

Wine Install (for windows games)

Wine Manager

1. Select Wine Manager
2. Select the desired Wine to be downloaded: WINE-GE, WINE-LUTRIS or PROTON-GE

Wine Setting (Global)

1. Select Settings
2. Select Wine
3. Into Wine Version, select the desired Wine version: WINE-GE, WINE-LUTRIS or PROTON-GE [previously downloaded and installed]

Wine Setting (per Game)

1. Goes to Library (needs to be previously log in)
2. Select the downloaded a windows game from Epic or GOG library
3. Goes to settings
4. Select the desired Wine to be downloaded: WINE-GE, WINE-LUTRIS or PROTON-GE

Launch Game

1. Goes to Library (needs to be previously log in)
2. Select a downloaded game (How to download game)
3. For Linux games: select play now
4. For windows games: select play now (how to install Wine)
5. Opening the Game... (Playing (STOP)) (linux games will launchs correcttly, windows ones needs Wine).
6. It will take a while to launches, but after that, the Wine will popup for the first install.
7. Confirm the Wine installation.
8. Game starts! (Sound and Gamepad works!)

Windows Games can't loads right now due to the lack of Wine. how to install WineLet's go install it on Wine section bellow!

Epic Games are windows games, and need Wine to launch. Gog Games are available as windows and linux games, the linux games will not need Wine to launch.

Delete Game

1. Goes to Library (needs to be previously log in)
2. Select a downloaded game (How to download game)
3. Select Tools
4. Select Uninstall

Other option

1. Goes to Settings
2. Select Other
3. For Gamepad: Select User GameMode (No need to enable it to use Gamepad!)
4. For GPU: Select Use Dedicated Graphics Card (Enable if necessary)
5. For FPS: Select Show FPS

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**

Permanent link:
https://wiki.batocera.org/systems:flatpak?rev=1656054416

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