



Linux Gaming Beyond Steam

Building native support for GOG, Epic and more...

**LEG
END
ARY**

Who we are?

Dennis Sädtler / derrod 

- CompSci Student (FH Trier)
- OBS Studio Developer
- Creator/Maintainer of
Legendary

Paweł / imLinguin 

- High School Student
- Heroic developer (GOG)

What we've built

Heroic

Legendary

GOGDL

Nile

Legendary (2020)

- FLOSS replacement for the Epic Games Launcher
- Command Line Interface only
- Written in python (3.9+)
- Licenced under GPLv3
- >100k monthly users
 - Mostly through Heroic

github.com/derrod/legendary

About



Legendary - A free and open-source replacement for the Epic Games Launcher

legendary.gl/discord

epic-games

epicgames-launcher

epic-games-launcher

linux-gaming

epic-games-client

📖 Readme

📄 GPL-3.0 license

🌿 2 Branches

📁 53 Tags

📈 Activity

☆ 4.2k stars

👁 45 watching

🍴 154 forks

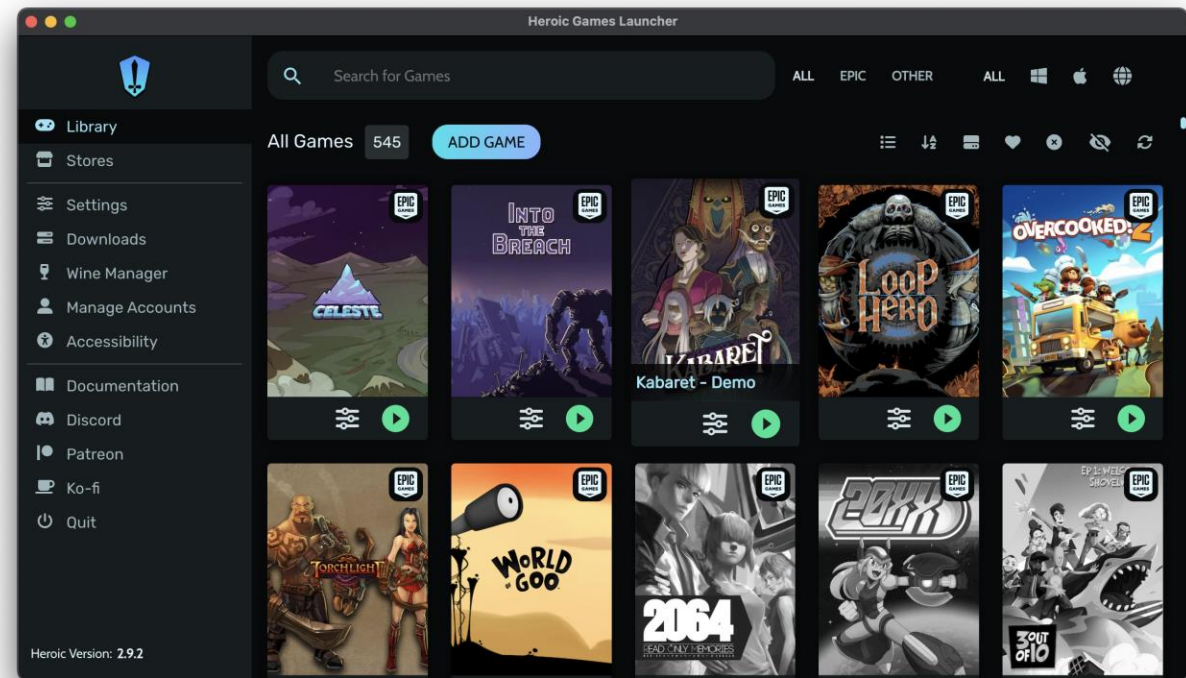
Releases 52

📦 0.20.33 - Undue Alarm Latest
on Jun 18

[+ 51 releases](#)

Heroic Games Launcher (2021)

- Created by Flávio Fearn as a GUI for Legendary
- Built on Electron / Node
- Runs on macOS, Linux, Windows
- Later expanded with support for GOG (2022) and Amazon Games (2023)
- GPLv3



github.com/Heroic-Games-Launcher

GOGDL (2022)

- Created specifically for Heroic Games Launcher
- CLI only (not user friendly)
- Written in Python
- Licensed under GPLv3

github.com/Heroic-Games-Launcher/heroic-gogdl

About



GOG Downloading module for Heroic Games Launcher

 Readme

 GPL-3.0 license

 Branches

 Tags

 Activity

 59 stars

 4 watching

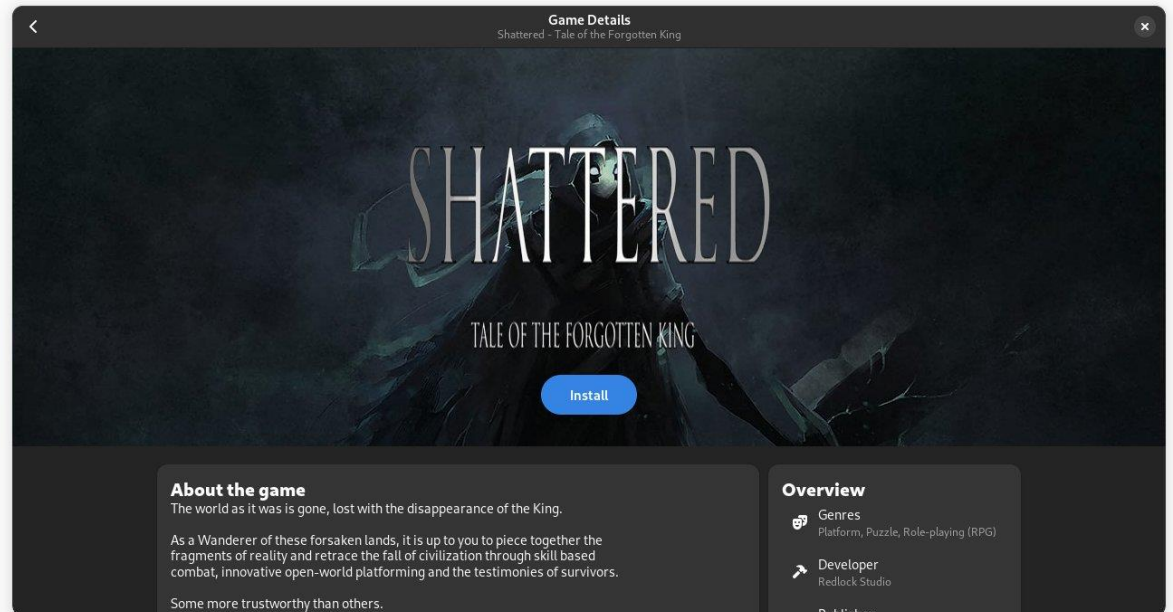
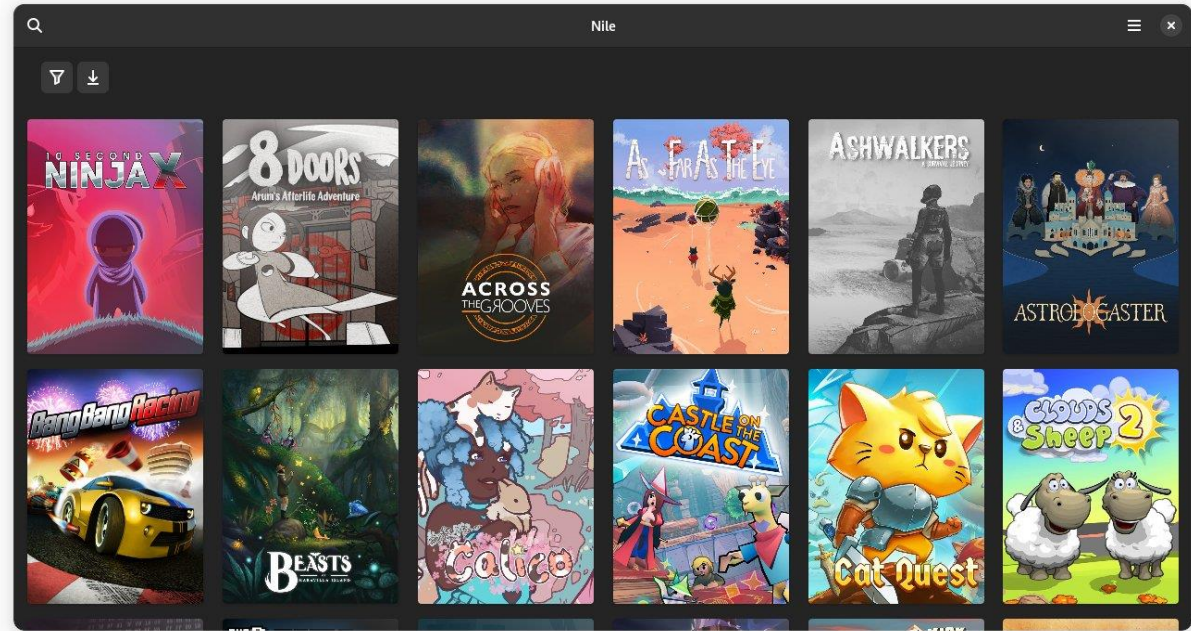
 11 forks

Report repository

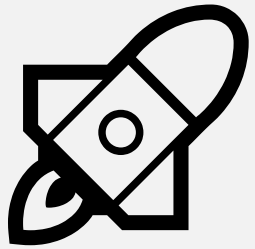
Nile (2023)

- Based on Dennis's twl.py github.com/derrod/twl.py
- CLI only
- Initially planned to be GUI too
- Written in Python
- Licensed under GPLv3

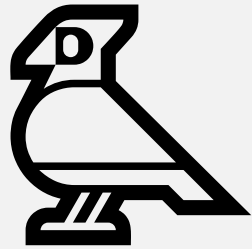
github.com/imLinguin/nile



Why?



Ease of use



Freedom of
choice



Fun
/ Challenge



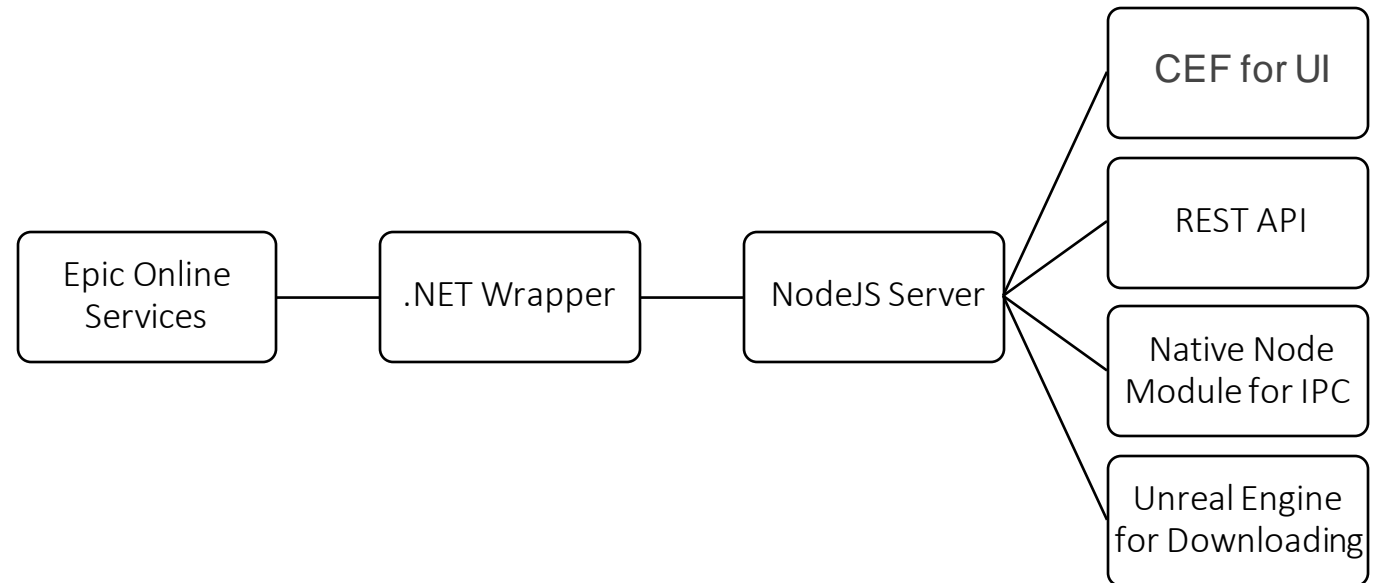
Spite

Spite?

- The game I backed on Kickstarter went exclusive...
- Epic Games Launcher is a mess
- Epic Online Services is even worse
- Let's build my own!

Epic's Client Mess

- Launcher runs Unreal Engine to show you a web UI...
- Windows service (daemon) written in Node?!
 - Bonus .NET wrapper just to run it as a service
- 2 copies of Unreal Engine for Launcher + Service
- 6 copies of Chromium Embedded Framework (CEF)



Size: 1.58 GB (1,701,691,631 bytes)

I F [REDACTED] LOVE GAME LAUNCHERS



I WANT TO F [REDACTED] OPEN A DIFFERENT PROGRAM FOR EVERY SINGLE ONE OF MY GAMES EVERY TIME I OPEN IT

How?

Documentation (if exists)

- Doesn't exist for the most part
- Some exceptions
 - Itch.io (github.com/itchio/itch-docs)

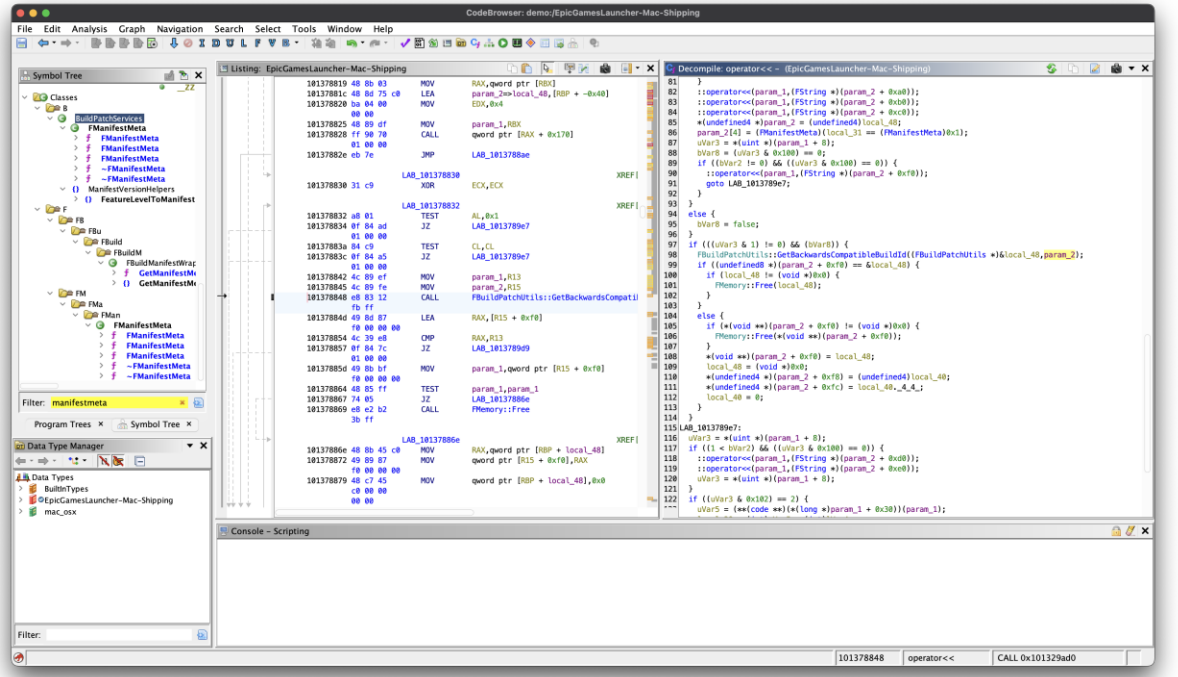
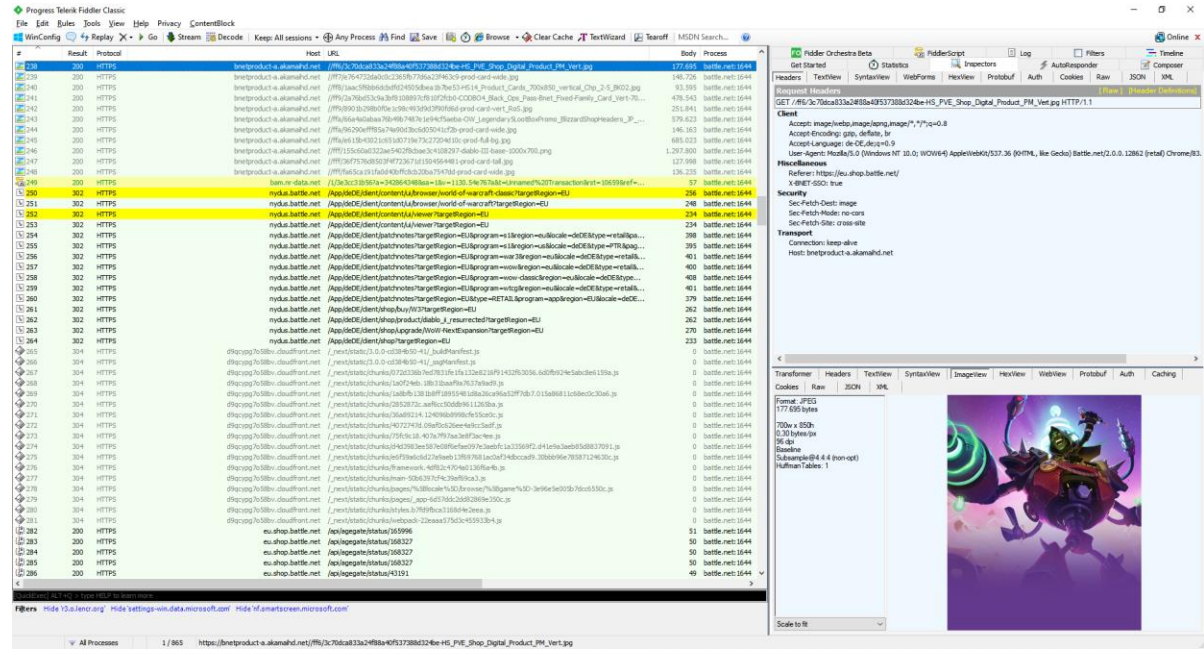
Reverse engineering

- Network capture
 - mitmproxy
 - Fiddler
 - Proxifier

- Decompiling

- Ghidra (it's free!)
- Binary Ninja
- IDA

Pro tip: macOS binaries often have symbols!



Pre-existing projects

- twl.py
 - Twitch Game Launcher (later renamed Amazon Games Launcher)
 - Incomplete PoC
- lgogdownloader
 - GOG, limited to downloading
- otool
 - Origin, limited to downloading
- EGL2
 - Epic Games Store, but Fortnite only

Trial & Error / Educated guesses

Just guess your way to working code!

Or fail trying...

```
Traceback (most recent call last):
  File "/Users/dennis/Projects/legendary/venv/bin/legendary", line 33, in <module>
    sys.exit(load_entry_point('legendary-gl', 'console_scripts', 'legendary')())
  File "/Users/dennis/Projects/legendary/legendary/cli.py", line 3087, in main
    cli.info(args)
  File "/Users/dennis/Projects/legendary/legendary/cli.py", line 1776, in info
    manifest = self.core.load_manifest(manifest_data)
  File "/Users/dennis/Projects/legendary/legendary/core.py", line 1201, in load_manifest
    return JSONManifest.read_all(data)
  File "/Users/dennis/Projects/legendary/legendary/models/json_manifest.py", line 50, in read_all
    _m.chunk_data_list = JSONCDL.read(_tmp, manifest_version=_m.version)
  File "/Users/dennis/Projects/legendary/legendary/models/json_manifest.py", line 115, in read
    _cdl.count = len(json_data['ChunkFilesizeList'])
KeyError: 'ChunkFilesizeList'
```




Where are we at?

Legendary

Supported Features

- Download / Verify / Update
- DLC
- Cloud Saves
- Multiplayer
- In-Game Overlay
- SDL - Selective Download
- Older versions of games (requires backup of game manifest)

Missing Features

- Mod Support
- Play time tracking
- Replacement for EOS service / daemon
- Social Features (Friends, Achievements, etc.)
 - Can mostly be done through in-game overlay



Where are we at?

GOGDL

Features

- Download / Verify / Update
- DLC
- Cloud Saves (Windows and Mac)
- Older versions of games (Windows and Mac)

Missing features

- Multiplayer
- Achievements
- Stats
- Leaderboards



Where are we at?

Nile

Features

- List games
- Download
- Verify
- Update

Missing Features

- FuelPump DRM – a Twitch App leftover


Platform reaction

„ Thank you! ”

What's next?

future plans and dreams section

Improvements

- Online features via comet (GOG) github.com/imLinguin/comet
- More features for Linux native games (GOG)
- Mods (Epic)
- EOS service / daemon replacement (Epic)
- Rewrite it in Rust   (only kind of joking)

New platforms

- IndieGala github.com/Gustash/FreeCarnival
- Ubisoft
- EA
- Xbox ?
- Who knows!

Other projects

I usebottles.com btw

Other approaches

- Running official launchers in WINE
 - Lutris
 - Bottles
 - CrossOver
- Aggregation from official launchers
 - Lutris (Linux)
 - GOG Galaxy (Windows, macOS)
 - Playnite (Windows)
 - ...and many more

Reverse-engineering projects

- YoobieRE github.com/YoobieRE
- UplayDB github.com/UplayDB
- SteamRE github.com/SteamRE
- OpenXbox github.com/OpenXbox
- gogdb.org

Launcher Replacements

- Minigalaxy (GOG)
- Igogdownloader (GOG)*
- otool (Origin) - only downloading
- Lutris (Amazon Games, GOG, Itch.io, Humble Bundle)

Get Involved!

- <https://discord.gg/FJc6kw2UkT>



Thank you!



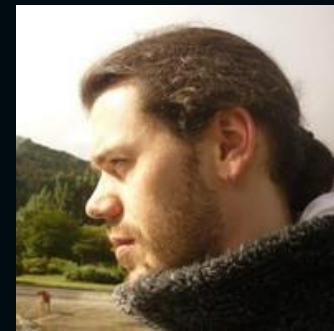
@Nocccer



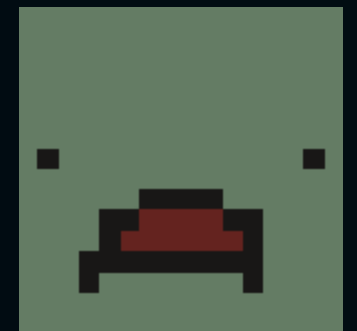
@CommandMC



@flavioislima



@arielj



@Etaash-mathamsetty