

master

Go to file

Code

ClassicOldSong

Merge pull request #12...

8d5341b · last month

.github

Merge remote-tracki...

3 months ago

cmake

Merge remote-tracki...

3 months ago

docker

build(Linux): Refacto...

3 months ago

docs

Merge remote-tracki...

3 months ago

gh-pages-template

docs(site): add scree...

6 months ago

packaging

Merge remote-tracki...

3 months ago

scripts

Merge remote-tracki...

3 months ago

src

Correct frame timest...

2 months ago

src\_assets

Apply theme to login...

3 months ago

tests

test: add external tes...

3 months ago

third-party

Merge remote-tracki...

3 months ago

tools

Merge remote-tracki...

3 months ago

.clang-format

chore: update global...

4 months ago

.dockerignore

build(linux): add com...

last year

.flake8

chore: update global...

6 months ago

.gitattributes

ci: use actionlint and...

5 months ago

.gitignore

feat: add publisher ...

last year

.gitmodules

Merge remote-tracki...

last year

.prettierrc.json

Fixed Formatting of ...

4 years ago

.readthedocs.yaml

build(deps): bump th...

last year

CMakeLists.txt

Revert project fqdn f...

4 months ago

DOCKER\_README....

build(fedora)!: add c...

last year

LICENSE

Create LICENSE

5 years ago

NOTICE

NOTICE file added wi...

3 years ago

README.md

Update Apollo install...

last month

apollo.icns

Further rebrand

last year

apollo.ico

Further rebrand

last year

apollo.png

Further rebrand

last year

apollo.svg

Further rebrand

last year

codecov.yml

ci: use prerelease lo...

last year

crowdin.yml

chore(10n): update t...

6 months ago

package.json

build(deps): bump v...

3 months ago

vite.config.js

Merge remote-tracki...

7 months ago

## About

Sunshine fork - The easiest way to stream with the native resolution of your client device

streamingremote-controlgamingremote-desktop

Readme  
GPL-3.0 license  
Contributing  
Activity  
6.8k stars  
29 watching  
170 forks  
Report repository

## Releases

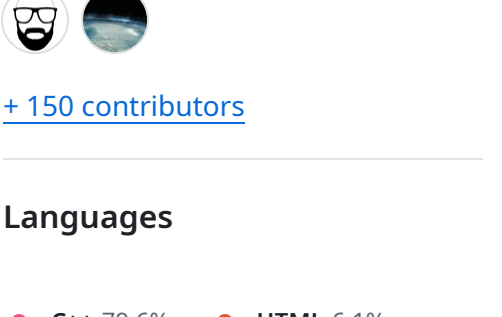
v0.4.6 Latest  
on Jul 13

+ 31 releases

## Packages

No packages published

## Contributors



+ 150 contributors

## Languages



# Apollo

Apollo is a self-hosted desktop stream host for [Artemis\(Moonlight Noir\)](#). Offering low latency, native client resolution, cloud gaming server capabilities with support for AMD, Intel, and Nvidia GPUs for hardware encoding. Software encoding is also available. A web UI is provided to allow configuration and client pairing from your favorite web browser. Pair from the local server or any mobile device.

Major features:

- ☒ Built-in Virtual Display with HDR support that matches the resolution/framerate config of your client automatically
- ☒ Permission management for clients
- ☒ Clipboard sync
- ☒ Commands for client connection/disconnection (checkout [Auto pause/resume games](#))
- ☒ Input only mode

## Usage

Refer to LizardByte's documentation hosted on [Read the Docs](#) for now.

Currently Virtual Display support is Windows only, Linux support is planned and will be implemented in the future.

## About Permission System

Check out the [Wiki](#)

### Note

The **FIRST** client paired with Apollo will be granted with FULL permissions, then other newly paired clients will only be granted with View Streams and List Apps permission. If you encounter Permission Denied error when trying to launch any app, go check the permission for that device and grant Launch Apps permission. The same applies to the situation when you find that you can't move mouse or type with keyboard on newly paired clients, grant the corresponding client Mouse Input and Keyboard Input permissions.

## About Virtual Display

### Warning

*It is **highly recommend to remove any other virtual display solutions from your system and Apollo/Sunshine config, to reduce confusions and compatibility issues.***

### Note

TL;DR Just treat your Artemis/Moonlight client like a dedicated PnP monitor with Apollo.

Apollo uses SudoVDA for virtual display. It features auto resolution and framerate matching for your Artemis/Moonlight clients. The virtual display is created upon the stream starts and removed once the app quits. **If you do not see a new virtual display added or removed when the stream starts or stops, there may be a driver misconfiguration, or another persistent virtual display might still be active.**

The virtual display works just like any physically attached monitors with SudoVDA, there's completely no need for a super complicated solution to "fix" resolution configurations for your devices. Unlike all other solutions that reuses one identity or generate a random one each time for any virtual display sessions, **Apollo assigns a fixed identity for each Artemis/Moonlight client, so your display configuration will be automatically remembered and managed by Windows natively.**

## Configuration for dual GPU laptops

Apollo supports dual GPUs seamlessly.

If you want to use your dGPU, just set the Adapter Name to your dGPU and enable Headless mode in Audio/Video tab, save and restart your computer. No dummy plug is needed any more, the image will be rendered and encoded directly from your dGPU.

## About HDR

HDR starts supporting from Windows 11 23H2 and generally supported on 24H2. Some systems might not have HDR toggle on 23H2 and you just need to upgrade to 24H2. Any system lower than 23H2/Windows 10 will not have HDR option available.

### Note

The below section is written for professional media workers. It doesn't stop you from enabling HDR if you know what you're doing and have deep understanding about how HDR works.

Apollo and SudoVDA can handle HDR just fine like any other streaming solutions.

If you have had good experience with HDR previously, you can safely ignore this section.

If you're curious, read on, but don't blame Apollo for poor HDR support.

Whether HDR streaming looks good, it depends completely on your client.

In short, ICC color correction should be totally useless while streaming HDR. It's your client's job to get HDR content displayed right, not the host. But in fact, it does affect the captured video stream and reflect changes on devices that can handle HDR correctly. On other devices that can't, the info is not respected at all.

It's very complicated to explain why HDR is a total mess, and why enabling HDR makes the image appear dark/yellow. If it's your first time got HDR streaming working, and thinks HDR looks awful, you're right, but that's not Apollo's fault, it's your device that tone mapped SDR content to the maximum of the capability of its screen, there's no headroom for anything beyond that actual peak brightness for HDR. For details, please take a look [here](#).

For client devices, usually Apple products that have HDR capability can be trusted to have good results, other than that, your luck depends.

► DEPRECATION ALERT

## How to run multiple instances of Apollo for multiple virtual displays

Follow the instructions in the [Wiki](#).

## FAQ

Moved to [Wiki](#)

## Stuttering Clinic

Here're some common causes and solutions for stutters: [Wiki](#).

## Device specific setups

- Pixel devices might not be able to use native resolution:
  - Change the device resolution to High: [#700](#)

## System Requirements

Warning: This table is a work in progress. Do not purchase hardware based on this.

### Minimum Requirements

Component	Description
GPU	AMD: VCE 1.0 or higher, see: <a href="#">obs-amd hardware support</a> Intel: VAAPI-compatible, see: <a href="#">VAAPI hardware support</a>
	Nvidia: NVENC enabled cards, see: <a href="#">nvenc support matrix</a>
CPU	AMD: Ryzen 3 or higher Intel: Core i3 or higher
RAM	4GB or more
OS	Windows: 10+ (Windows Server requires <a href="#">manual installation</a> for gamepad support) macOS: 12+ Linux/Debian: 11 (bullseye) Linux/Fedora: 39+ Linux/Ubuntu: 22.04+ (jammy)
Network	Host: 5GHz, 802.11ac Client: 5GHz, 802.11ac

### 4k Suggestions

Component	Description
GPU	AMD: Video Coding Engine 3.1 or higher Intel: HD Graphics 510 or higher Nvidia: GeForce GTX 1080 or higher
CPU	AMD: Ryzen 5 or higher Intel: Core i5 or higher
Network	Host: CAT5e ethernet or better Client: CAT5e ethernet or better

### HDR Suggestions

Component	Description
GPU	AMD: Video Coding Engine 3.4 or higher Intel: UHD Graphics 730 or higher Nvidia: Pascal-based GPU (GTX 10-series) or higher
CPU	AMD: todo Intel: todo
Network	Host: CAT5e ethernet or better Client: CAT5e ethernet or better

## Integrations

SudoVDA: Virtual Display Adapter Driver used in Apollo

[Artemis](#): Integrated Virtual Display options control from client side

**NOTE:** Artemis currently supports Android only. Other platforms will come later.

## Support

Currently support is only provided via GitHub Issues/Discussions.

No real time chat support will ever be provided for Apollo and Artemis. Including but not limited to:

- Discord
- Telegram
- Whatsapp
- QQ
- WeChat

When there's a chat, there're dramas. -- Confucius

## Downloads

### Direct Download

### Recommended

## WinGet

**Note:** Community maintained

In an elevated PowerShell window, run

```
winget install ClassicOldSong.Apollo
```



You'll need WinGet installed first.

## Chocolatey

**Note:** Community maintained

You can also install the apollo streaming server with chocolatey.

Install Chocolatey if you don't have it, then run the following command in an elevated PowerShell/CMD window:

```
choco upgrade apollo -y
```



Same command can be used to upgrade, add to a scheduled task to automate updates.

See more details on the chocolatey package [here](#)

## Disclaimer

I got kicked from Moonlight and Sunshine's Discord server and banned from Sunshine's GitHub repo literally for helping people out.

This is what I got for finding a bug, opened an issue, getting no response, troubleshoot myself, fixed the issue myself, shared it by PR to the main repo hoping my efforts can help someone else during the maintenance gap.

Yes, I'm going away. [Apollo](#) and [Artemis\(Moonlight Noir\)](#) will no longer be compatible with OG Sunshine and OG Moonlight eventually, but they'll work even better with much more carefully designed features.

The Moonlight repo had stayed silent for 5 months, with nobody actually responding to issues, and people are getting totally no help besides the limited FAQ in their Discord server. I tried to answer issues and questions, solve problems within my ability but I got kicked out just for helping others.

**PRs for feature improvements are welcomed here unlike the main repo, your ideas are more likely to be appreciated and your efforts are actually being respected. We welcome people who can and willing to share their efforts, helping yourselves and other people in need.**

**Update:** They have contacted me and apologized for this incident, but the fact it **happened** still motivated me to start my own fork.

## License

GPLv3

