EcoTubeHQ

EcoTubeHQ Video Player offers high quality video playback for many DRM-free streaming services whilst using minimal resources. This is achieved through automated video codec selection, high quality video upscaling and minimized data retrieval. Hardware acceleration reduces CPU usage.

EcoTubeHQ offers AMD FidelityFX Super Resolution to produce high quality video output.

Unlike RTX VSR, AMD FSR works with most GPUs and iGPUs. Below is the official list of graphics cards that support AMD FSR:

AMD Ryzen desktop CPUs with AMD Radeon graphics	AMD Ryzen mobile CPUs with Radeon Graphics
AMD Radeon 6000 Series	AMD Radeon RX 500 Series
AMD Radeon 6000M Series	AMD Radeon RX 480, 470 and 460
AMD Radeon 5000 Series AMD Radeon 5000M Series	Nvidia GeForce RTX 30 Series Nvidia GeForce RTX 20 Series
AMD Radeon VII	Nvidia GeForce 16 Series
AMD Radeon RX Vega Series	Nvidia GeForce 10 Series

Supported Video Codecs

av1 - Best quality video with lowest bitrate

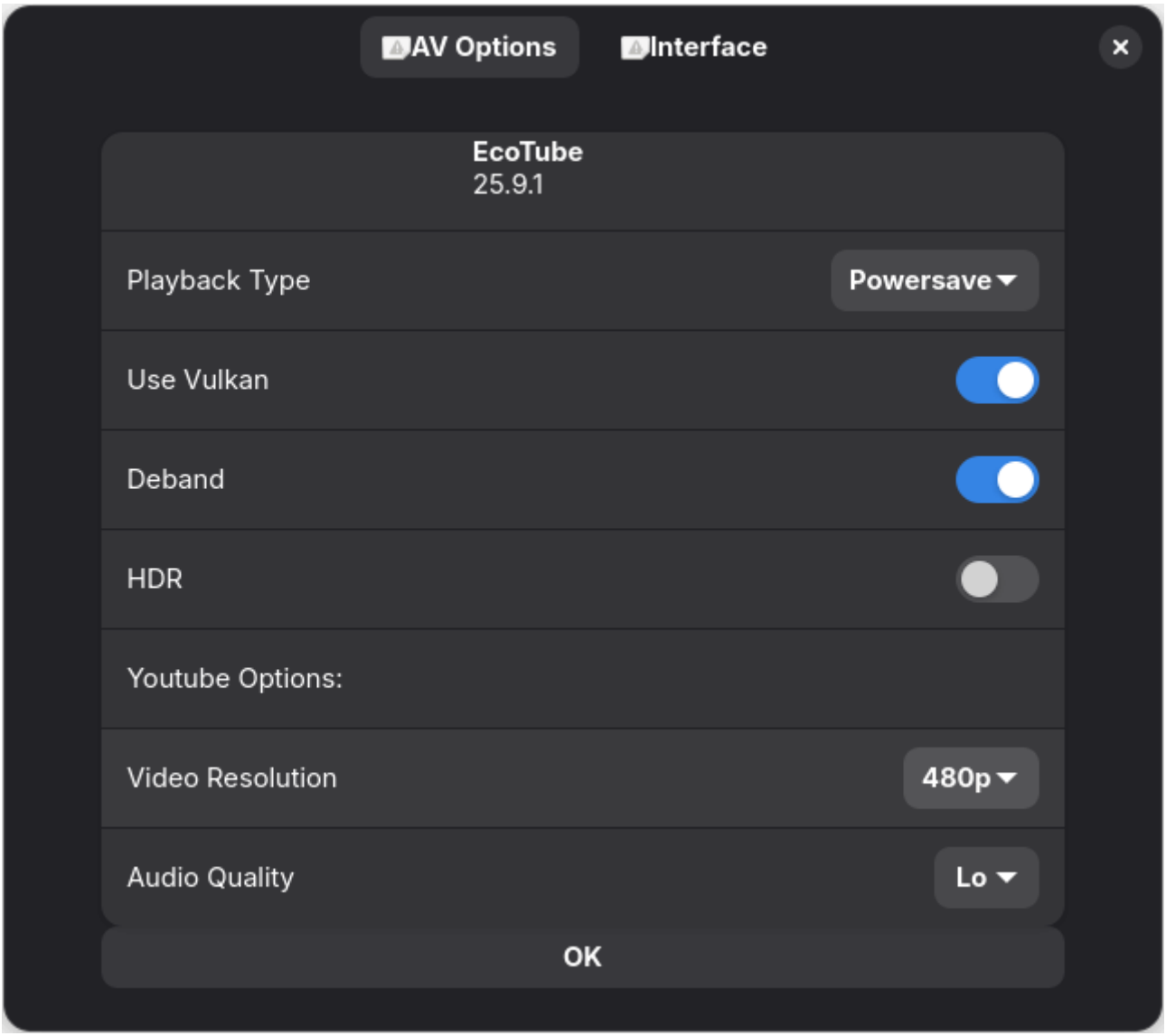
h.265 – Very good quality video with low bitrate

vp9 - Good quality video with low bitrate

h.264 - Lowest quality video with the highest bitrate

Player Preferences

Click on the hamburger menu next to the minimize button, then select Preferences. This shows the following…

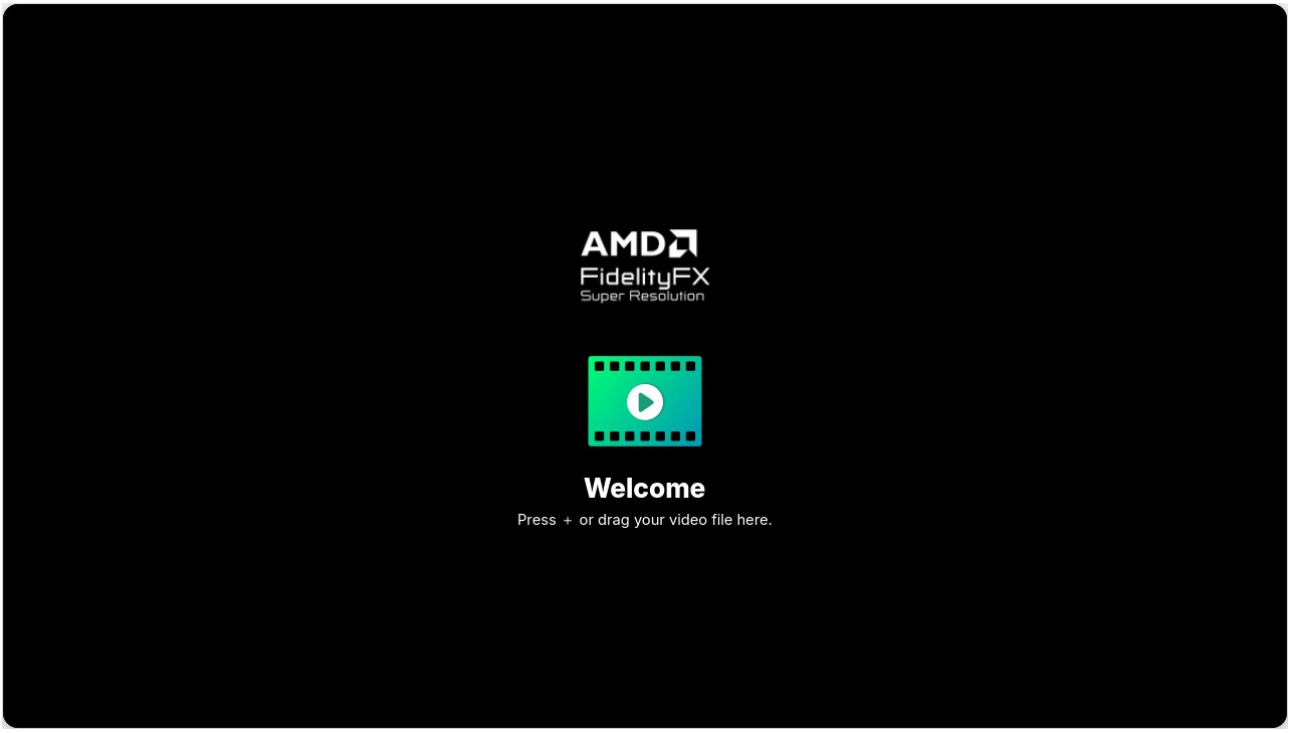


...here's what it all means:

Playback Type

Default **Auto**

Quality – high quality video output: av1 video codec with AMD FidelityFX Super Resolution Video Upscaling [if av1 is not available then vp9 is used, and if vp9 is not available then h.264 is used]. When the player is in Quality mode the AMD FSR logo is shown on the interface:



Powersave – reduced CPU / GPU usage: vp9 video codec with Bilinear upscaling [if vp9 is not available then h.264 is used]. Bilinear does not have the video quality of AMD FSR, but it is a very fast upscaling method, thus it should allow the player to run on older PCs and significantly extend the battery life of a laptop playing videos [especially if miniplayer resolutions of 144p & 240p are used].

Auto – Mainly for use with laptops – defaults to **Quality** on desktops. If mains electricity is being used then the playback type defaults to **Quality,** whereas the playback type defaults to **Powersave** if battery power is being used.

Vulkan

Default **Off**

Vulkan GPU Compute Acceleration reduces CPU use by providing hardware accelerated decode for av1, vp9, h.264 and h.265 playback. This can improve playback on older PCs and improve the battery life of laptops.

Deband

Default **On**

Similar colors can appear on-screen in distinct bands - this is defined as banding. Deband shows the colors as smooth gradients, thus improving picture quality.

HDR

Default **Off**

Allows the playback of High Dynamic Range videos if this form of playback is supported by your distro.

YouTube Options

Supported Video Resolutions

720p

480p [Default]

360p

240p

144p

When using the **Quality** playback type EcoTubeHQ restricts the maximum video resolution to 720p@30fps to minimize data usage. There is minimal difference when comparing 720p **Quality** upscaling to 1080p browser output quality, but there is a significant reduction in data usage. The maximum resolution of the **Powersave** playback type is 480p.

Note: Some h.264 videos on YouTube only have resolutions of 144p, 360p & 720p. If this is the case and the player's output resolution is set to 240p then the video output defaults to 360p, and if its output resolution is set to 480p then the video output defaults to 720p.

Audio Quality
YouTube av1 and vp9 only

Hi - 160Kbps

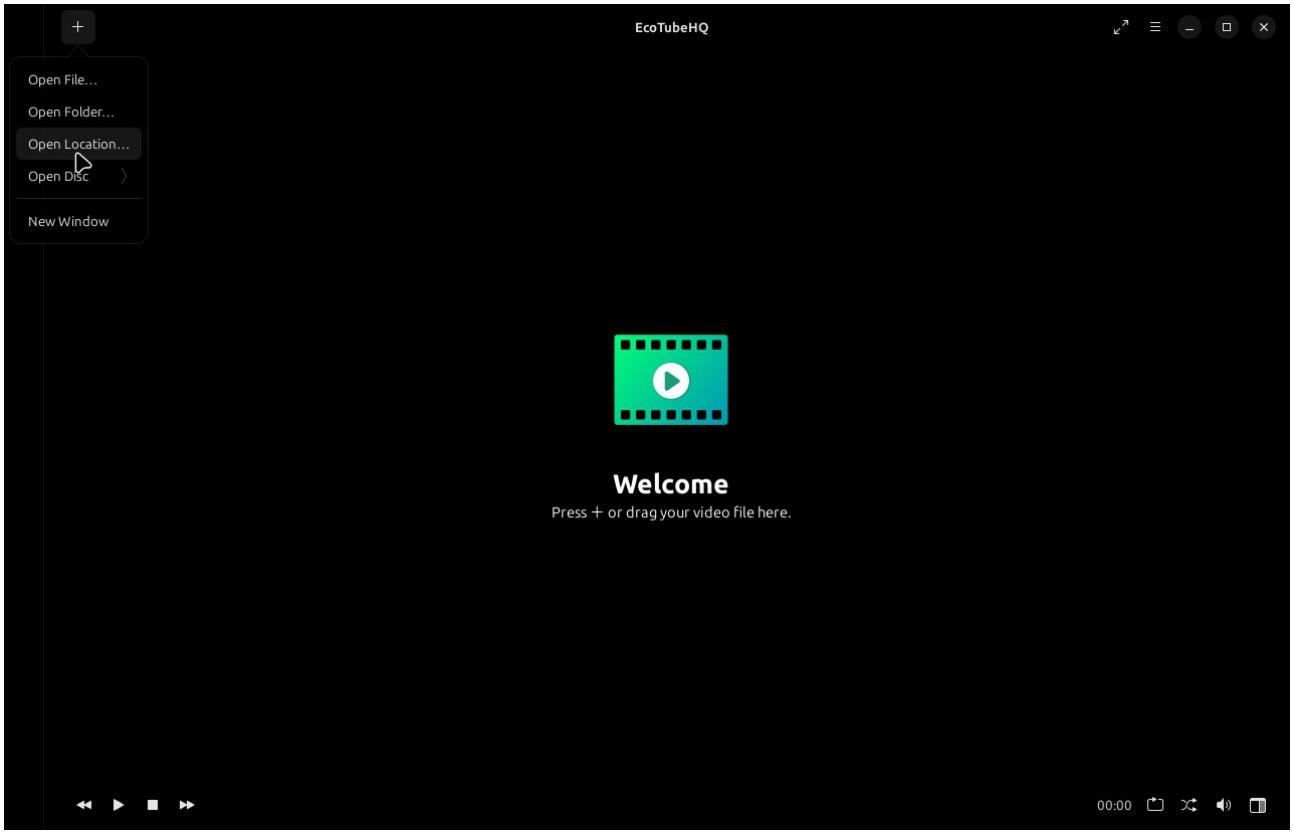
Lo - 70Kbps [Default]

EcoTube offers two different Opus audio bitrates when playing av1 and vp9 YouTube videos - 70kbps (Lo) and 160kbps (Hi).

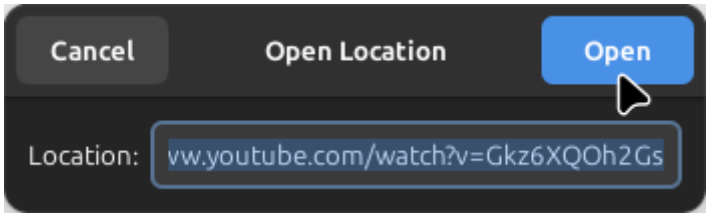
How to use

Local files can be dragged and dropped onto the player interface to initiate playback.

To play a video from an online streaming service simply copy the video URL from the browser, click '+' at the top left of the player and select 'Open Location'…



...the player automatically places the copied video location into the 'Location' entry box…



...click the 'Open' button to initiate playback.

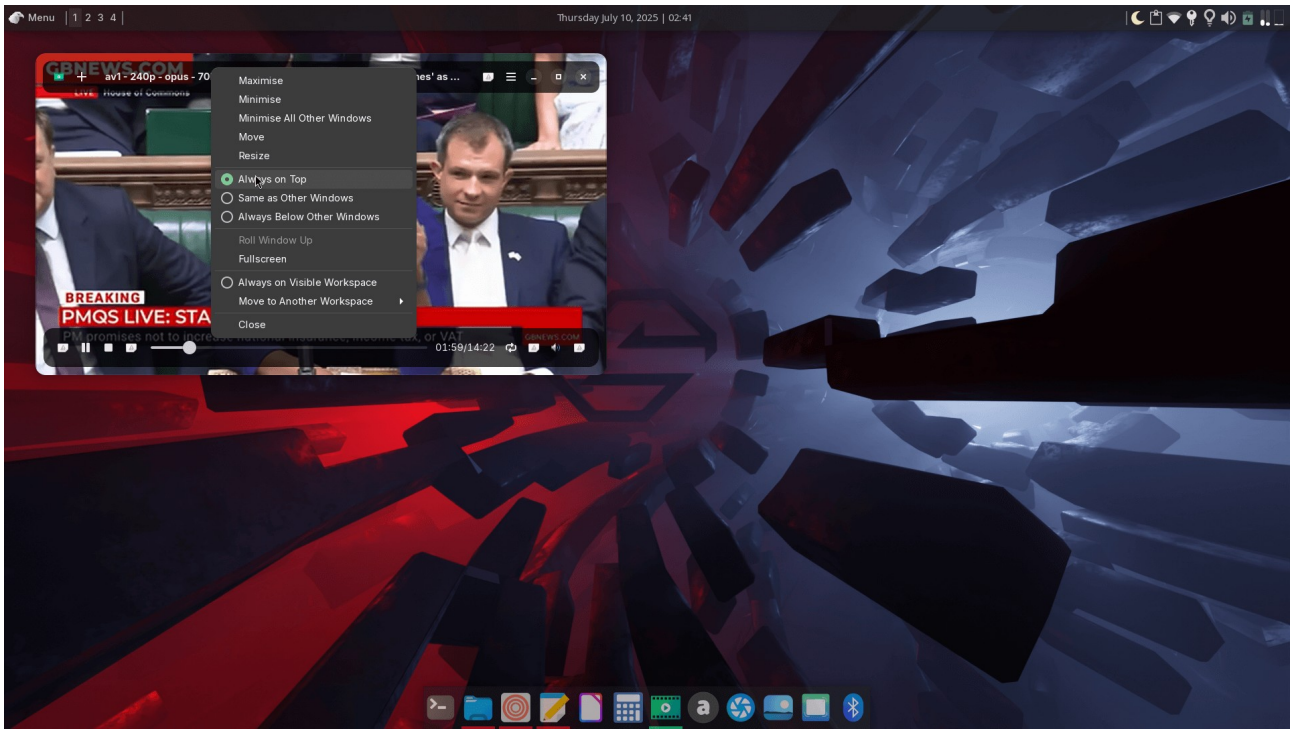
- Press the space bar or right click the mouse on the player screen to pause / play video playback.
- Rotate the mouse wheel on the playback window to turn the audio volume up / down – the volume will reset to normal when the player is restarted.
- Double click the player window during playback to play the video fullscreen.
- Press ‘Esc’ or double click on the player window during fullscreen playback to return the player to non-fullscreen playback.

Miniplayer Usage

If you are watching a YouTube video which does not require fullscreen or you want to minimize CPU usage during playback then set the player's video output resolution to 144p or 240p.

This automatically reduces the size of the player's non-fullscreen window, effectively providing you with a miniplayer. The size of 240p videos is shown in the screenshot below, and 144p videos are displayed in a smaller window.

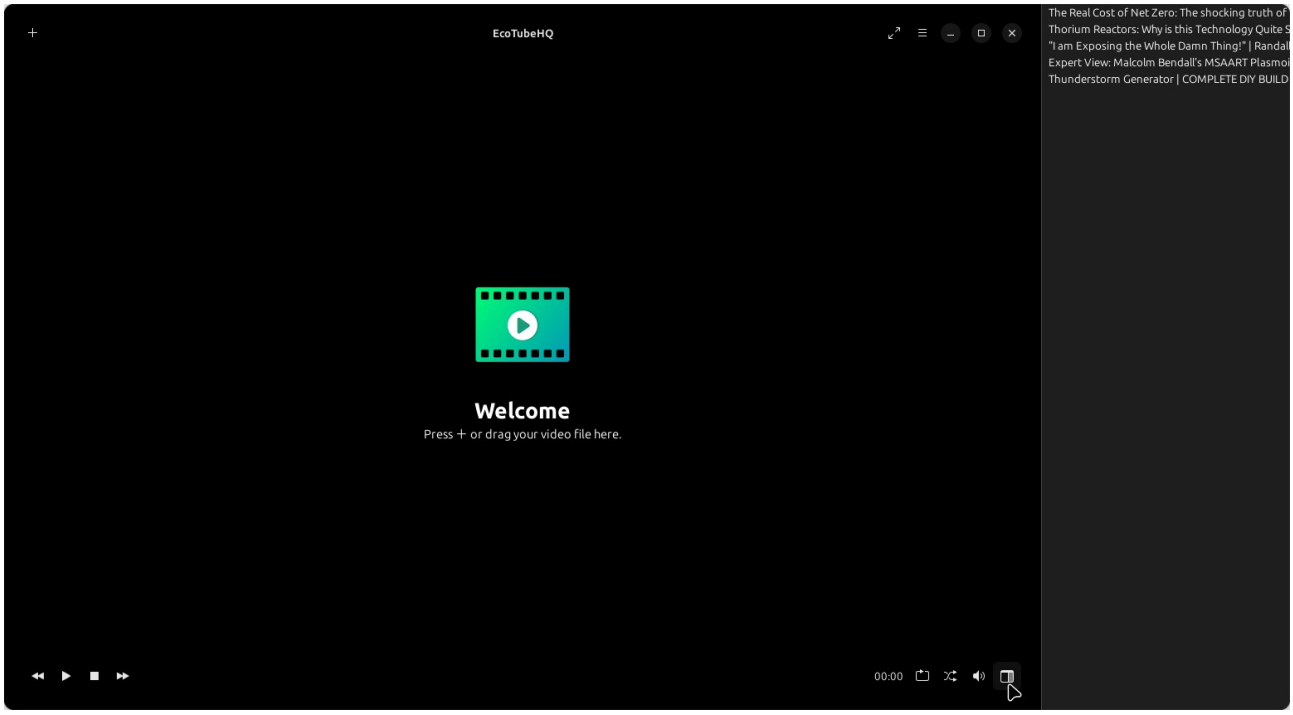
To keep the player on top of all other windows during playback right-click on the top bar and select 'Always on top' as shown below.



The end result minimizes CPU usage, and it significantly reduces the bandwidth of videos for things such as podcasts where video quality is not paramount.

* To further reduce CPU usage set the Playback Type to **Powersave**

Playlists



To add a playlist click on the bottom right icon titled "Toggle Playlist". When this is done the playlist opens.

To add videos from an external streaming service drag and drop the browser URL for the playlist onto the player's playlist. Additional videos can be added prior to, and during playback. To start playback simply double-click on the required playlist video.

EcoTubeHQ Original Concept: Colin Bett

Coding and additional ideas: Sako Adams

Forked from the Celluloid Video Player

Changelog

v25.10.2

- yt-dlp is auto-updated when a new release is available
- Added modern On Screen Control
- Local files show thumbnails on the seekbar
- Download the video
- Enhance UI

v25.10.1

- Added ‘auto mode’ in playback type
- Fix stream latency
- Enhance UI

v25.9.3

- Updated yt-dlp
- Bilinear upscaling is used for powersave mode
- Enhance UI

v25.9.2

- Fix codec selection in powersave mode
- Updated playlist mode
- Enhance UI

v25.9.1

- Updated playback options - Powersave and Quality
- Updated playlist mode
- Added HDR option in preference
- Enhance UI
- Fixed memory usage in startup

v25.8.2

- Added two playback options - Powersave and Quality
- Removed redundant codec selection
- Reorganized default playlist
- Included no https protocol in format selection
- Reduced network stream usage

v25.8.1

- Forced yt-dlp to use MPEG-DASH on some resolutions
- Reduce stream when paused
- Fixed resolution dropping
- Exclude HDR
- Add playback type

v25.7.2

- Forced mpv to avoid HLS - temporarily

v25.7.1

- Added Vulkan support
- Fixed video / audio download + improved video loading
- Fix format selection
- Updated caching system
- Fixed auto-resize player

v25.5.1

- Upgrade to gtk4.16 and libadwaita-1 1.6
- Enhance interface with playlist overlay
- New update notification
- New dialog for "How to use it"
- Minor playback fix

v25.3.3

- Buffering: prefetch is now limited to 10 seconds to minimize data used when videos are not played in their entirety.
- Hardware acceleration is automatically activated if a laptop is running on battery power.
- Auto update parsers.
- Updated the way default resolutions are selected.
- The preference interface has been updated.

V25.2.1

26 February 2025

Initial conversion from Celluloid.

Thanks to haggen88 for the icon update and albanobattistella for the patches,

14 August 2024

Initial commit to Github.