

YT Audio Downloader

User Documentation

Version 4.4 — `GUI_Download.pyw` — Powered by `yt-dlp`

Last updated: 2025

Changelog — v4.4

The following features and fixes were added in version 4.4:

- Right-click context menu on all input fields (Cut, Copy, Paste, Select All, Clear)
 - URL list field — point to a .txt file with one link per line for batch downloads
 - Cookies file field — for age-restricted and members-only content
 - No console window when running the compiled .exe
 - JavaScript runtime flag (`--js-runtimes node`) — fixes YouTube signature solving errors
 - Fixed: `yt-dlp` subprocess now inherits the correct system PATH for Node.js detection
-

1. Overview

YT Audio Downloader is a desktop application that provides a graphical interface for `yt-dlp`, a command-line tool for downloading audio from YouTube and hundreds of other websites. Instead of typing commands in a terminal, this app lets you configure and launch downloads through a clean, dark-themed window.

The application is a single Python script (`GUI_Download.pyw`) and requires `yt-dlp.exe` to be placed in the same folder. No installation is needed beyond having Python installed, or you can use the compiled .exe version which is fully standalone.

Requirements

- Python 3.8 or later (python.org) — not needed if using the compiled .exe
- `yt-dlp.exe` in the same directory as the script or .exe (github.com/yt-dlp/yt-dlp/releases)
- `ffmpeg.exe` in the same directory or on the system PATH — required for MP3 and Opus conversion
- Node.js v16 or later — required for YouTube JS challenge solving (nodejs.org)

Node.js is required for YouTube downloads to work correctly. Without it, `yt-dlp` cannot solve YouTube's signature challenges and most formats will be unavailable. Download the LTS version from nodejs.org.

`ffmpeg` is needed whenever you choose MP3 or Opus format. The Original format skips conversion and does not require `ffmpeg`.

2. Interface Overview

The window is divided into labelled sections from top to bottom:

Video URL (single link)

Paste or type a single URL here to download one track. Supports YouTube, SoundCloud, Bandcamp, and any other site supported by yt-dlp.

Right-click inside the field for a context menu with Cut, Copy, Paste, Select All, and Clear. Standard keyboard shortcuts (Ctrl+C, Ctrl+V, Ctrl+A) also work.

You can fill in both this field and the URL list at the same time. Both sources will be processed in the same download run.

URL List (optional)

Use this field to point to a plain text file (.txt) containing multiple URLs, one per line. This is the recommended way to batch-download a playlist or a collection of tracks.

Example file content:

```
https://www.youtube.com/watch?v=AAAAAAAAAAAA
https://www.youtube.com/watch?v=BBBBBBBBBBBB
https://soundcloud.com/artist/track-name
# Lines starting with # are ignored

# Blank lines are also ignored
```

- Click Browse... to open a file picker.
- Click Clear to remove the selection without deleting the file.

Cookies File (optional)

Some content requires you to be logged in — age-restricted videos, members-only content, or private playlists. Providing a cookies file passes your browser session to yt-dlp so it can authenticate on your behalf.

How to export cookies correctly

Install the “**Get cookies.txt LOCALLY**” extension for Brave, Chrome, or Firefox.

- Go to youtube.com and make sure you are logged in.
- Click the extension icon in your toolbar.
- Make sure the dropdown shows www.youtube.com (not the full page URL).
- Click Export — choose the option that exports the full domain, not just the current tab.
- Save the file as cookies.txt anywhere on your computer.
- In the app, click Browse... next to the Cookies field and select that file.

Keep your cookies file private. It contains your active login session and should not be shared with anyone.

Cookies expire after a few weeks. If downloads start failing with authentication errors, export a fresh cookies.txt and replace the old one.

Important note on --cookies-from-browser

yt-dlp supports reading cookies directly from your browser using --cookies-from-browser, but this method has two known limitations on Windows with Brave/Chrome-based browsers:

- The cookie database is locked while the browser is open, causing a permission error.
- Running as Administrator allows file access but breaks cookie decryption, because cookies are encrypted with your normal user account key.

For these reasons, the manual export method described above is more reliable and is what this application uses.

3. Download Options

Audio Format

Choose how the audio should be saved after downloading:

Setting / Field	Description
MP3	Re-encodes the audio to MP3. Most compatible format — works on all devices and media players. Requires ffmpeg.
Opus	Re-encodes to Opus. Better quality than MP3 at the same file size, but not supported by all players. Requires ffmpeg.
Original	Keeps the original audio stream without re-encoding. Fastest option. No ffmpeg required. The file extension will match whatever format the source used (usually .webm or .m4a).

Bitrate

Controls the audio quality when re-encoding to MP3 or Opus. Ignored when Format is set to Original.

Setting / Field	Description
Default	MP3 at 192 kbps / Opus at quality level 5. Good balance of quality and file size for most uses.
High	MP3 at 320 kbps / Opus at quality level 0 (best). Larger files, highest quality. Recommended for music archiving.

Speed Limit

Caps the download speed to avoid saturating your connection. Select ∞ for maximum speed.

Setting / Field	Description
∞ (Unlimited)	No cap. Downloads as fast as your connection allows.
100 MB/s	Suitable for most broadband connections.
10 MB/s	Moderate throttle. Useful on shared connections.
1 MB/s	Heavy throttle. Leaves most of your bandwidth free.

Download Folder

The folder where completed files will be saved. Click Browse... to open a folder picker.

Make sure the folder exists before starting. yt-dlp will not create it automatically.

4. Running a Download

Starting

Once you have filled in at least one URL source and selected a download folder, click  Download. The progress bar will animate and log output will appear in real time at the bottom of the window.

The Download button stays active at all times. You can start another download while one is already running.

Stopping

Click  Stop to cancel the current download. yt-dlp will be terminated immediately. Any partially downloaded file may remain on disk in an incomplete state.

Skipping existing files

If a file with the same name already exists in the download folder, yt-dlp will skip it automatically and log a message confirming it was already downloaded. Nothing will be overwritten.

File naming

Files are saved as:

```
<video title>.<extension>
```

Special characters in titles that are not valid in file names are replaced automatically by yt-dlp.

5. The Log Panel

The log panel shows real-time output from yt-dlp. Lines are colour-coded for quick reading:

Setting / Field	Description
Teal	Success — download complete, file skipped because it already exists.
Red	Error — download failed, file not found, authentication problem.
Yellow	Warning — non-fatal issue such as a missing format or unsupported option.
Blue	Info — current file being downloaded, destination path, format details.
Grey	General output from yt-dlp.

Click  Clear log at any time to empty the panel. This does not affect any running download.

Per-second progress percentage lines and ffmpeg internal messages are filtered out automatically to keep the log readable. The final result of each download is always shown.

The warning “Failed to download m3u8 information” is harmless. It means yt-dlp tried a streaming manifest and fell back to the regular download method. The file will still download correctly.

6. File & Folder Structure

All core files must be in the same folder:

```
YTDownloader\  
  GUI_Download.pyw    ← the application (or compiled YT-Downloader.exe)  
  yt-dlp.exe          ← required  
  ffmpeg.exe          ← required for MP3 / Opus  
  icon.ico            ← optional, custom window and taskbar icon
```

The cookies file and URL list file can be stored anywhere — you select them through the Browse buttons and they do not need to be in the same folder.

7. Compiling to .exe

The script can be compiled into a standalone Windows executable using PyInstaller. The compiled .exe does not require Python to be installed on the target machine, but yt-dlp.exe, ffmpeg.exe, and Node.js still need to be present.

Requirements

- PyInstaller installed: `pip install pyinstaller`
- Python 3.12 or earlier recommended — PyInstaller may not support the very latest Python release

Basic compile command

```
python -m PyInstaller --onefile --noconsole --name "YT-Downloader"  
GUI_Download.pyw
```

To add a custom icon:

```
python -m PyInstaller --onefile --noconsole --name "YT-Downloader" --  
icon="icon.ico" GUI_Download.pyw
```

If the pyinstaller command is not recognised, use `python -m PyInstaller` instead. This works regardless of whether the Scripts folder is in your PATH.

Custom window icon (title bar)

To show an icon in the title bar and taskbar, add these two lines in the `__init__` method of the script, right after `super().__init__()`:

```
self.iconbitmap("icon.ico")  
self.wm_iconbitmap("icon.ico")
```

The icon.ico file must be in the same folder as the .exe when running.

Distributing

The recommended distribution method is a self-extracting zip containing:

```
YT-Downloader.exe
yt-dlp.exe
ffmpeg.exe
icon.ico
README.txt (optional)
```

8. Troubleshooting

Setting / Field	Description
 yt-dlp.exe not found	yt-dlp.exe is missing from the application folder. Download it from github.com/yt-dlp/yt-dlp/releases and place it alongside the script or .exe.
 JS runtime / signature solving error	Node.js is not installed or is too old (v8 is not supported). Install Node.js v16 or later from nodejs.org . If multiple Node.js versions are installed, make sure the correct one is first in your system PATH.
 Only images available / no formats	Node.js was not detected by yt-dlp. Check that node.exe is reachable from PATH. If you recently updated PATH, restart the application.
 Download failed (exit code 1)	Usually a bad URL, or the video is unavailable in your region. Check the URL and try again.
 ffmpeg not found	ffmpeg.exe is not in the application folder or on PATH. Required for MP3 and Opus. Use Original format as a workaround.
 Sign in to confirm age / not a bot	The video requires authentication. Export a cookies.txt from a logged-in Brave/Chrome/Firefox session using the Get cookies.txt LOCALLY extension and provide it in the Cookies field.
 Permission denied reading Cookies database	This happens when using --cookies-from-browser while the browser is open or when running as Administrator. Use the manual cookies.txt export method instead.
 HTTP Error 403 / 429	YouTube has temporarily rate-limited your IP. Wait a few minutes and try again. Also try updating yt-dlp: yt-dlp.exe -U
m3u8 warning in log	Harmless. yt-dlp tried a streaming format and fell back automatically. The download will still complete.
Window does not open	Make sure you are running the script with pythonw.exe (not python.exe) to avoid the console window. The .pyw extension should be associated with pythonw automatically on Windows.

9. Keeping yt-dlp Up To Date

YouTube frequently changes how it serves video data. If downloads suddenly stop working, the most common fix is updating yt-dlp. Open a terminal in the application folder and run:

```
yt-dlp.exe -U
```

This checks for a newer version and replaces yt-dlp.exe in place automatically.

If you get an HTTP 403 or 429 error, or if the JS challenge warning reappears after a yt-dlp update, wait a few hours and try again. YouTube-side changes sometimes take time to be fully resolved in yt-dlp.