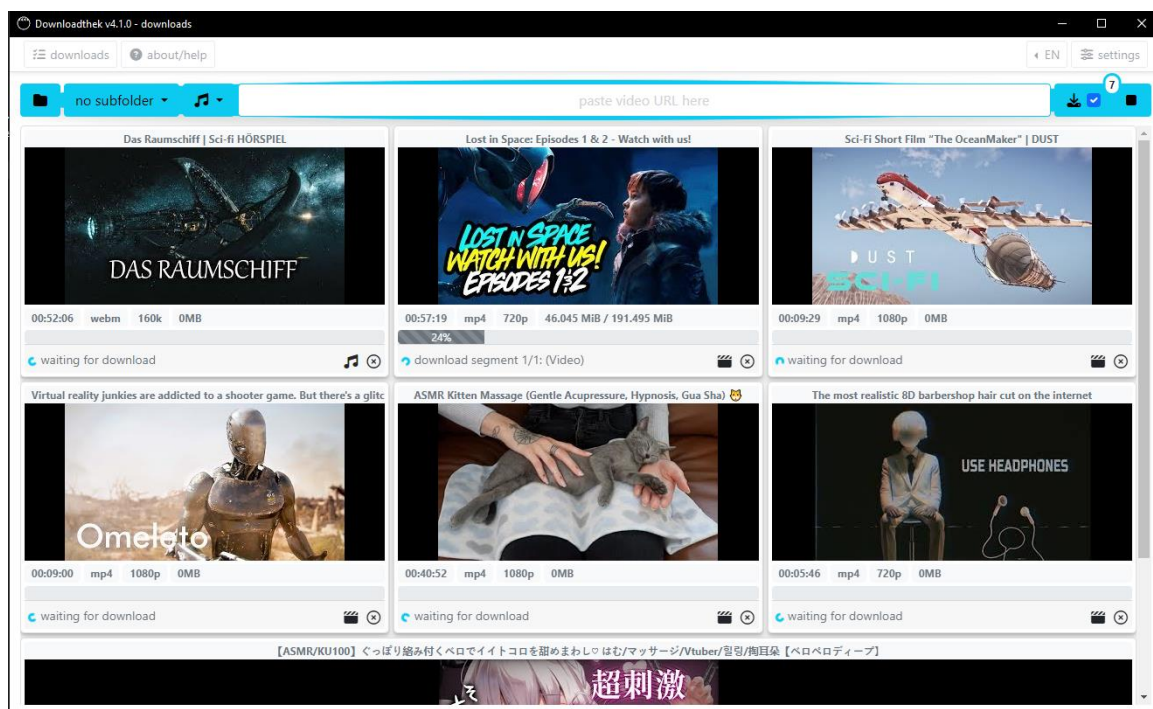


# Downloadthek Video Downloader

This application is an experiment to convert a .NET6 MVC web application into a fully functional desktop application using Electron .NET. User interactions such as configuring storage folders or editing video are uncommon in a classic web application. This is where Electron's strengths come into play, as it allows you to perform actions closer to the operating system. Among other things, this application serves as an experimentation environment for me to learn how to use ffmpeg in C#. Currently, I am trying to understand how video streams work and how to retrieve and convert such data. Perhaps this experiment will develop into at least a useful video downloader for various streams/media. To determine a downloadable video URL, my downloader uses the SharpGrabber library, so only downloads on media platforms that support this library are possible. More download possibilities will be available once I have delved deeper into the subject.



## Nuget packages and associated licenses used for the app

- Newtonsoft.Json (<https://licenses.nuget.org/MIT>)
- Esprima (<https://licenses.nuget.org/BSD-3-Clause>)
- ElectronNET.API (<https://licenses.nuget.org/MIT>)
- FFmpeg.AutoGen (<https://www.nuget.org/packages/FFmpeg.AutoGen/6.0.0/license>)
- LiteDB (<https://www.nuget.org/packages/LiteDB/5.0.16/license>)
- SharpGrabber (<https://www.nuget.org/packages/SharpGrabber/2.1.1/license>)
- SharpGrabber.Adult (<https://www.nuget.org/packages/SharpGrabber.Adult/1.0.2/license>)
- SharpGrabber.Hls (<https://www.nuget.org/packages/SharpGrabber.Hls/1.3.0/license>)
- SharpGrabber.YouTube (<https://www.nuget.org/packages/SharpGrabber.YouTube/1.5.0/license>)
- MediaToolkit (<https://www.nuget.org/packages/SharpGrabber.YouTube/1.5.0/license>)

## External libraries (Automatic download available)

- FFmpeg 6.0 (<https://ffmpeg.org/legal.html>)

## Download and Install

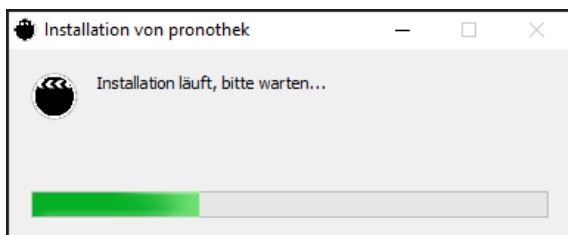
The following variants of Downloadthek are available for download on GitHub:

<https://github.com/hswlab/downloadthek/releases>

1. downloadthek-portable.exe
2. downloadthek-setup.exe

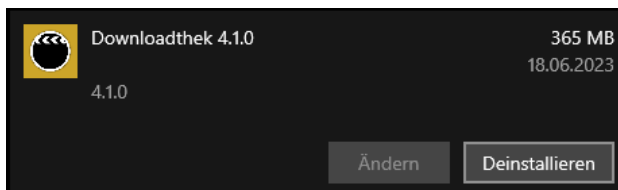
The portable version can be executed directly without installation. However, starting this app takes a little longer than with the installed version. The installation is started by clicking on the downloadthek-setup.exe. The app is stored in the following directory.

„C:\Users\UserName\AppData\Local\Programs\downloadthek“



## Uninstall

As with all Windows programs, the uninstall can be done under "Apps and Features".

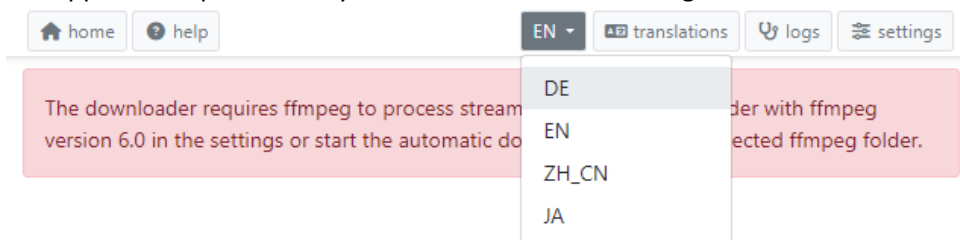


## Updates

For a new version, a button with the version name is displayed in the header of the app. The update can be started either in the app by clicking on the version button or by downloading the current version again on GitHub. The latter is recommended because the update process via the GitHub server takes a little longer.

## Multilanguage

Downloadthek currently supports the languages German, English, Chinese and Japanese. Further translations can be added on request. The language can be changed in the header menu after starting the app. The help PDF is only available in German and English.



## Configuration of ffmpeg 6.0


Downloadtheek requires the ffmpeg 6.0 libraries to process downloaded video streams. The library is not included in the installation, but can be set up automatically in the settings. After starting, a corresponding message will be displayed.


The downloader requires ffmpeg to process streams. Please select the folder with ffmpeg version 6.0 in the settings or start the automatic download into the preselected ffmpeg folder.

If the message appears, click on the Settings button to switch to the Settings view. If ffmpeg 6.0 is already available on the PC, you can select the corresponding folder here with the "select folder" button. (Don't forget to save)

### ffmpeg path

C:\Users\pixilab\AppData\Roaming\ffmpeg

 download ffmpeg

 select folder

If ffmpeg 6.0 does not yet exist on the PC, the proposed folder can be kept for download. By clicking on "download ffmpeg" the missing libraries are automatically downloaded and unpacked. After a successful download, the ffmpeg input field should no longer be highlighted in red.

## Preferred download quality

Many video portals offer a selection of different resolutions of a video. The following setting can be used to configure the maximum quality that should always be downloaded automatically. If the selected video quality is not available, the next possible lower quality will be downloaded automatically.

download settings

preferred video download quality ⓘ

1080p (HD)

4320p (8k)

2160p (4k)

1440p (HD)

1080p (HD)

720p

480p

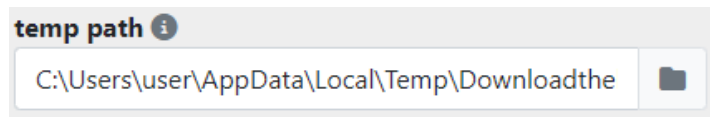
360p

240p

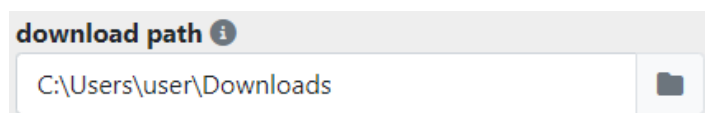
144p

## Configure storage paths

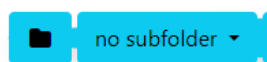
The temporary folder is used to store unfinished downloads and stream segments. This folder is automatically cleaned up when a download is finished. The path can be left unchanged or an alternate path can be configured. (Don't forget to save)

A screenshot of a settings window titled "temp path" with an information icon. It contains a text input field with the path "C:\Users\user\AppData\Local\Temp\Downloadthe" and a folder icon button to its right.

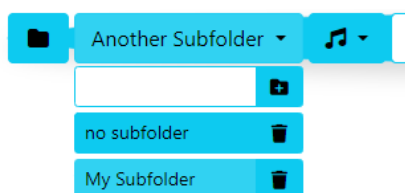
Unless otherwise configured, the downloaded files are stored in the default Windows download directory.

A screenshot of a settings window titled "download path" with an information icon. It contains a text input field with the path "C:\Users\user\Downloads" and a folder icon button to its right.

The save path can also be quickly changed via the folder icon on the home page.

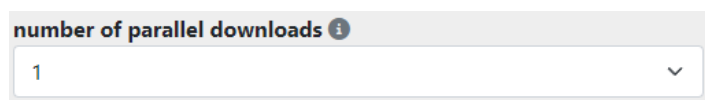


If no subfolder is selected, the downloads are saved directly to the configured download folder. Clicking on the dropdown, to the right of the folder icon, opens a selection of subfolders. A new subfolder can also be quickly created or deleted here. Subfolders that already contain data will not be deleted.



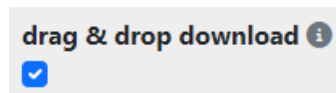
## Configure the number of concurrent downloads

A maximum of 1-4 downloads can run at the same time. When the application is first launched, only 1 simultaneous download is preconfigured. This can be changed in the settings. **For performance reasons and to speed up individual downloads, downloads on YouTube are only possible if the setting is set to 1!**

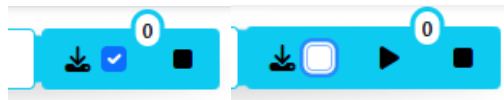
A screenshot of a settings window titled "number of parallel downloads" with an information icon. It contains a dropdown menu with the value "1" selected.

## Configure download with drag and drop

Downloads can be started automatically by dragging and dropping a URL. To do this, the corresponding option must be activated.

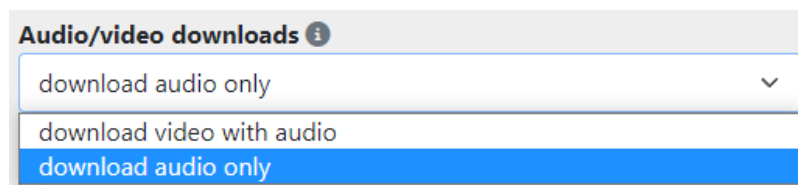


This option can also be changed directly on the download overview page. If the checkbox is deactivated, the download can be started manually with the "Play button".

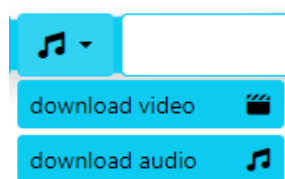


## Audio/Video Downloads

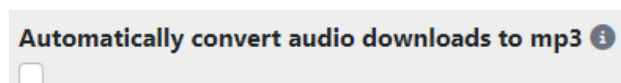
This option allows you to specify whether only the audio track should be downloaded.



The download type can also be changed directly on the download view.

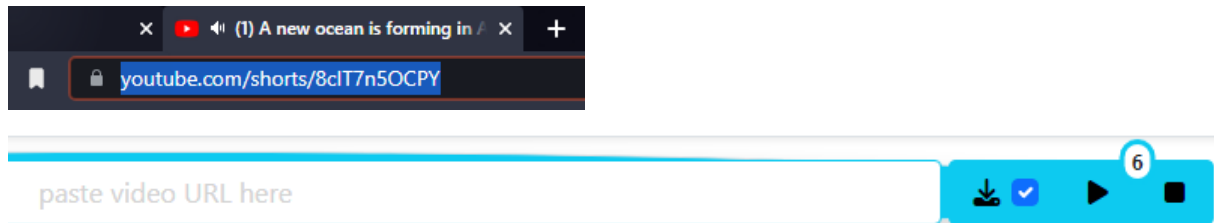


In the settings view, the conversion to mp3 can be activated. This will automatically convert audio downloads to mp3. During the conversion, downloads are interrupted and the conversion to mp3 takes significantly more time!

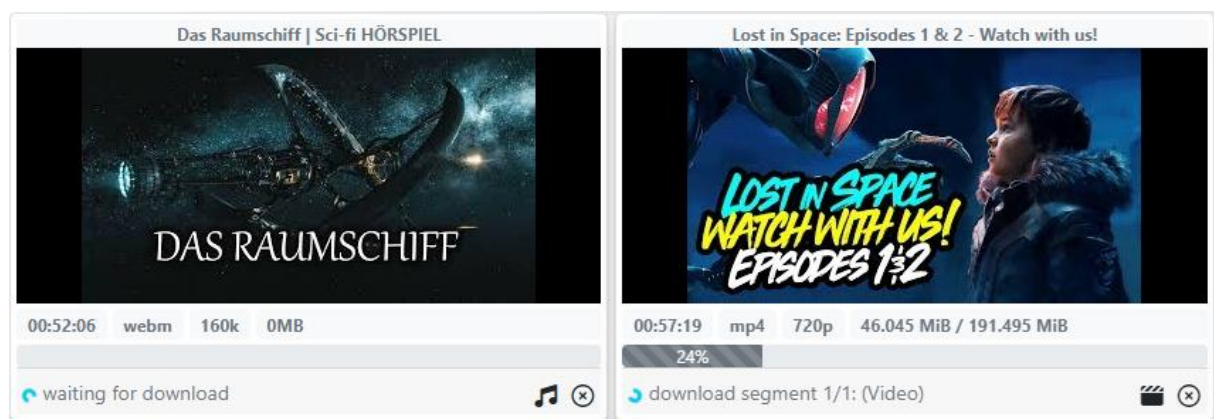


## Download

To download a video, navigate to the video player view in your browser window and copy the URL into the input field on the homepage of Downloadthek. Click on the Play button to start the download. If the checkbox is set next to the play button, the download will start immediately with the addition of a URL.



The number between the Play and Stop buttons shows the number of all downloads in the download queue. The Stop button ends all downloads and empties the download queue. For each download in the download queue, a tile with a preview image is created in the overview.



Active downloads can be recognized by a moving progress bar. A maximum of 4 active downloads can run at the same time. To cancel a download, you can use the x button at the bottom right of the tile. An audio or video download can be recognized by the icon next to the cancel button.

During a download, the navigation bar in the header is locked so that changes to certain basic settings cannot affect an ongoing download. The storage path and subfolder can also be changed during a download. However, these changes will not affect downloads that have already begun.