[HOW TO USE]: Annotator App
version: 1.1.2

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July 2024

Contents

1 “App” Folder

This section provides information about the contents of the “App” folder. This folder should be visible in your home directory or desktop. You may copy or transfer the App folder as a whole to other devices, but do not move or modify individual files within this directory.

Launch the application by double-clicking on the App folder. You will then see four folder items on your screen. The ”Annotator.exe” file consists of the main annotator application that you will be using.

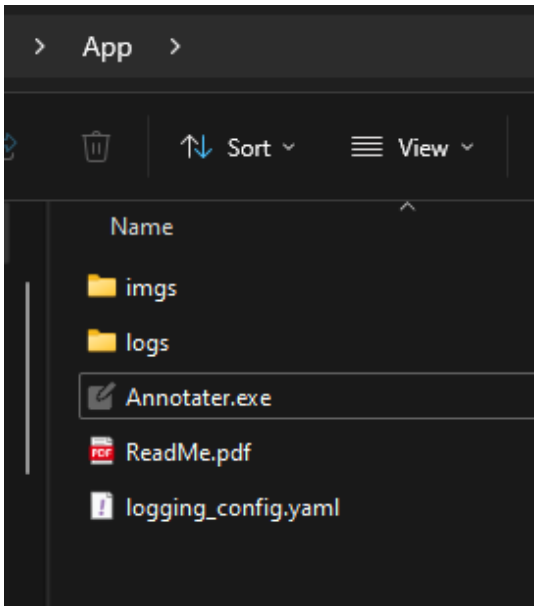

Figure 1: Folder Items

1.1 logs

The logs folder contains log files that record various events and errors. This folder stores all the debug statements that can be accessed or used in the event of a software issue.

1.1.1 app.log

This file logs general application events, including critical error messages.

1.1.2 info.log

This file logs informational messages.

1.1.3 errors.log

This file logs error messages.

1.1.4 critical.log

This file logs critical error messages.

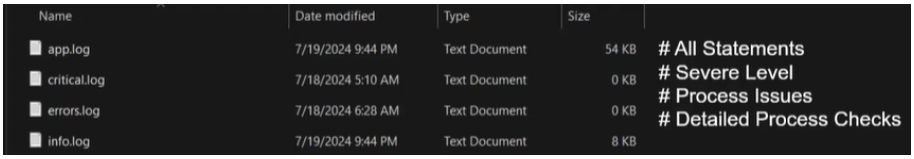

Figure 2: Folder Items

1.2 logging_config.yaml

This file contains the configuration for the logging system. It helps the application store logs.

1.3 ReadMe.pdf

This PDF provides instructions on how to use the application. This is updated with each iteration of the project.

1.4 Annotator.exe

This is the executable file for the Annotator application.

2 App Startup and Loading Screen

This section covers the startup and loading screen of the application.

2.1 Debug Panel

The Debug Panel is used for monitoring application status and errors during startup. Wait for a few moments for the application to launch. Do not close the Debug Panel as this will shut the application down; minimize the window instead.

2.2 Splash Screen

The Splash Screen displays the application logo and loading progress. The application is then ready to use.

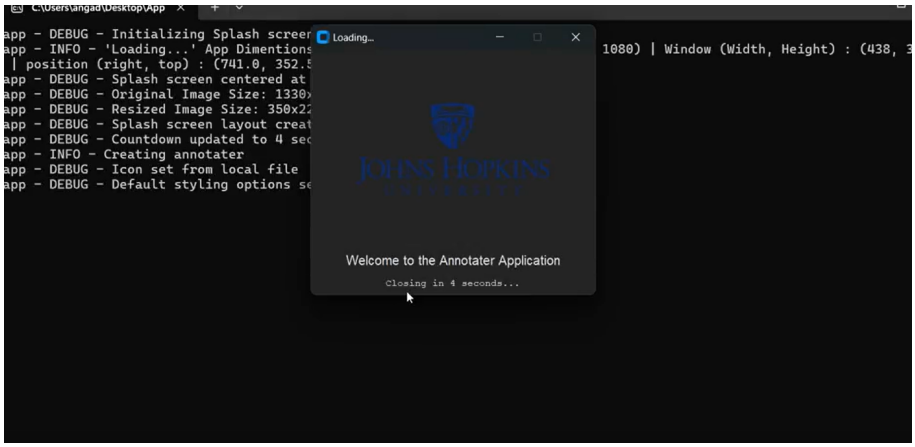

Figure 3: The Debug Window and Splash Screen

3 Directory Setup

This section explains how to set up directories for the application. When this application is launched for the first time, it is redirected to the **D:\Videos** folder, as illustrated.

Initial Setup: To prevent errors and maintain simplicity, it is advised to create folders within this directory; you may label your working directories "data" and "out" as shown below.

The **data** folder stores the video files that need to be annotated. This is your **input directory** folder.

The **out** folder stores the data folder's corresponding video files, created after the use of the annotation software. This is your **output directory** folder.

3.1 Working Directory

The Working Directory is where the application performs its tasks. In the illustrated examples, this is the D:\Videos folder, which houses the **data** and **out** folders.

3.2 Input Directory

The Input Directory is where input files are stored, to be annotated.

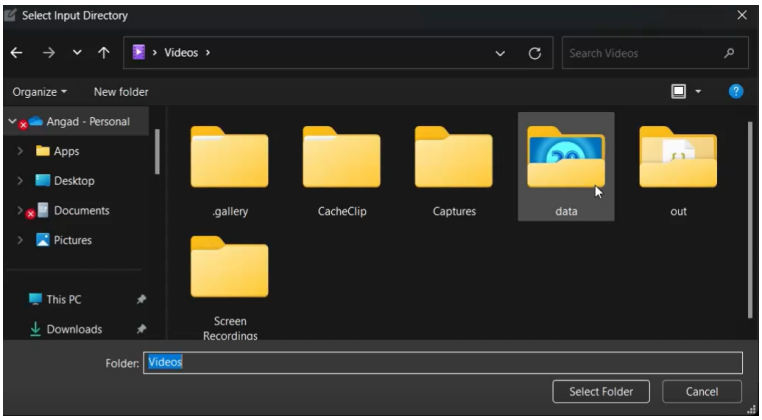

Figure 4: Selecting the Input Directory

3.3 Output Directory

The Output Directory is where the annotated output files are saved.

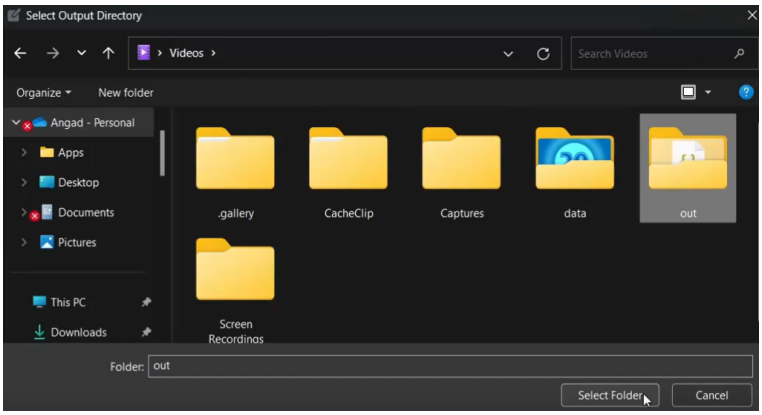

Figure 5: Selecting the Output Directory

4 Main Window

This section describes the main window of the application.

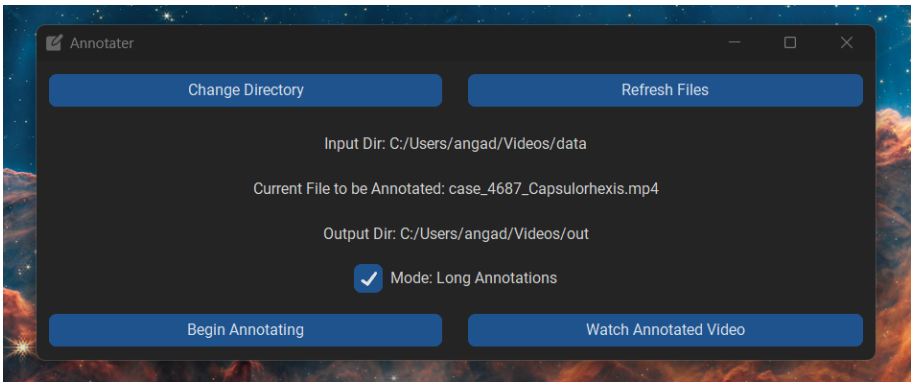

Figure 6: The Annotator Window

4.1 Change Directory

The Change Directory option in the Main Window allows you to select a different working directory.

4.2 Refresh Files

The Refresh Files button updates the list of files from the directory in the application.

4.3 Directory Structure and Next File to be Annotated

This feature allows you to view the selected input and output directories, as well as the next file queued for annotation.

4.4 Choosing Annotation Format: Long/Short

When selecting short annotations, only the line between two points is displayed. In contrast, long annotations display all points from when the mouse is clicked and dragged to when the finger is lifted. The annotation method does not affect how annotations are stored. Thus, a video annotated in short mode can be replayed in long mode and vice versa.

4.5 Window Resizability

This feature allows you to resize the application window. Note that the application can only be resized horizontally.

5 Begin Annotating

This section covers how to begin annotating files. Make sure that the video file that you would like to use has been loaded by reading the "Current File to be Annotated" row in the Main Window. Upon clicking on the "Begin Annotating" button, two new windows will be launched; a Video Player and the Control Window.

5.1 Video Player

The Video Player is used to play the video files to be annotated.

5.2 Control Window

The Control Window contains various controls for annotating.

Figure 7: The Video Player and Control Windows

5.2.1 Play/Pause

This button plays or pauses the video. Even if the video in the player has been paused, the annotator will continue to record movement and audio.

5.2.2 Seeker

The Seeker allows you to navigate through the video. Even if the video reaches its ending, the software will continue to record content until you exit from the software entirely.

5.2.3 Reset

The Reset button resets the annotation progress. This is useful if you want to discard and re-record your work.

5.2.4 Exit (Without Saving)

This option exits the annotation process without saving changes. You may do so by closing the Control Window.

5.2.5 Exit (With Saving)

This option exits the annotation process and saves changes. If you want to annotate any more videos, you must select it from your input directory.

Figure 8: Annotator Tools

6 Saving Annotations

This section explains how to save annotations.

6.1 Save Screen

The Save Screen allows you to save your annotations.

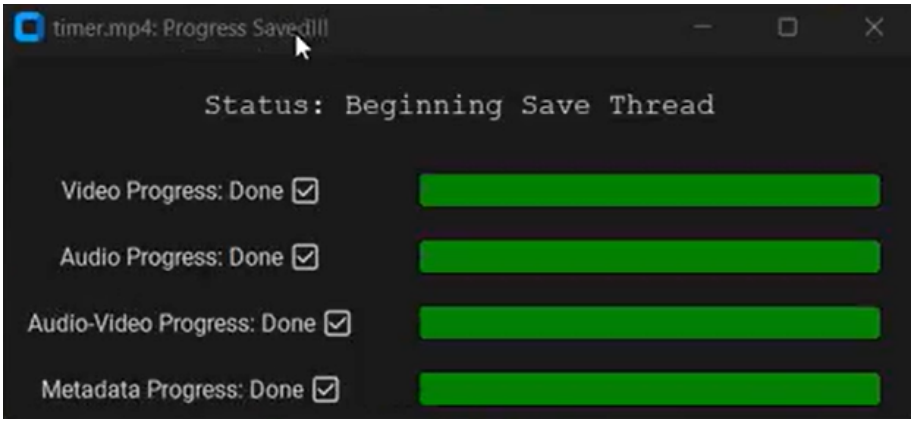

Figure 9: Save Screen

6.2 Save Structure

Annotations are saved in the Output Directory, which we have previously introduced in the form of the "out" folder. Two files are created upon saving your work; the annotated video file labeled *filename*_annotated, and a JSON file with the same name.

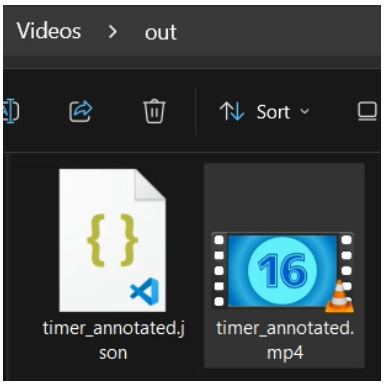

Figure 10: Saved Files in the Output Directory

Note: The directory structure of the input is preserved. For example, if a video file exists in a subdirectory such as `/data/tmp/file.mp4`, the output video will maintain the same structure. Therefore, a new file will be created at `/out/tmp/file_annotated.mp4`.

6.3 Annotation Structure

The JSON file holds data that provides frame-by-frame information on the actions performed within the annotated video. It also displays the plane coordinates of where within the video the cursor action took place.

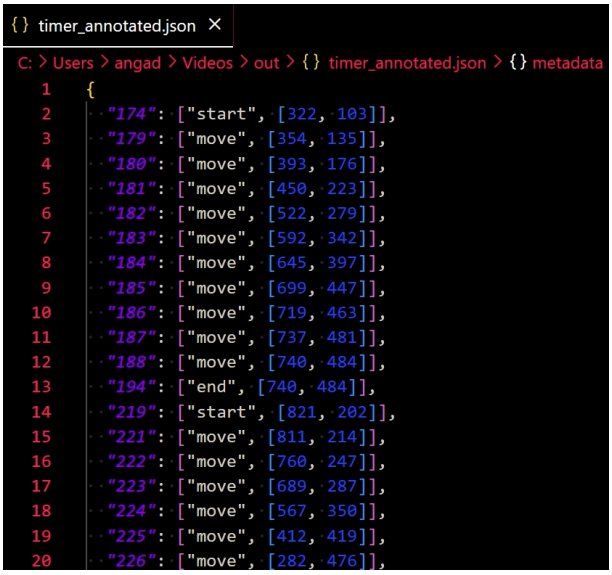

Figure 11: Annotated Video Details Stored in the JSON file

6.4 Metadata Structure

At the bottom of the same JSON file, below the annotator structure, is the video file metadata.

Figure 12: Annotated Video Metadata Stored in the JSON file

7 Watching Annotations

Saved annotations can be viewed by clicking on the the **Watch Annotated Video** section located in the Main Window. This action will load the output directory, which contains the annotated video files.

Select the file you wish to view in order to play it. At the end of the video, you will see a pop-up window stating that the video file is done playing. You may also exit out of the playing video early by pressing the **Q** key.

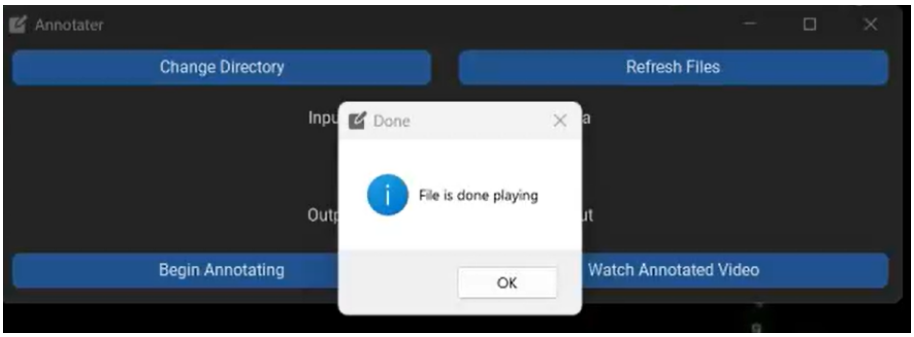

Figure 13: Pop-Up Window after the Video Ends

8 Important links

This section contains important links related to the application.

Description	**Link**
Software Tutorial	LINK
Repository	LINK
Application	LINK

Table 1: Important links related to the application