

Video Annotator User Guide

Launching the video annotator

1. Open command prompt (cmd)
2. Change directory

```
cd path/to/video/annotator/folder
```

3. Check Python version: Python \geq 3.5

```
python --version
```

4. Install PyQt5 and python-vlc

```
pip install PyQt5  
pip install python-vlc
```

5. Download VLC media player: https://www.videolan.org/index.zh_CN.html

6. Launch video annotator

```
python gui.py
```

If necessary, you can specify the video directory path, annotation directory path, and label directory path.

```
python gui.py C:\path\to\video\folder C:\path\to\annotation\folder  
C:\path\to\label\folder
```

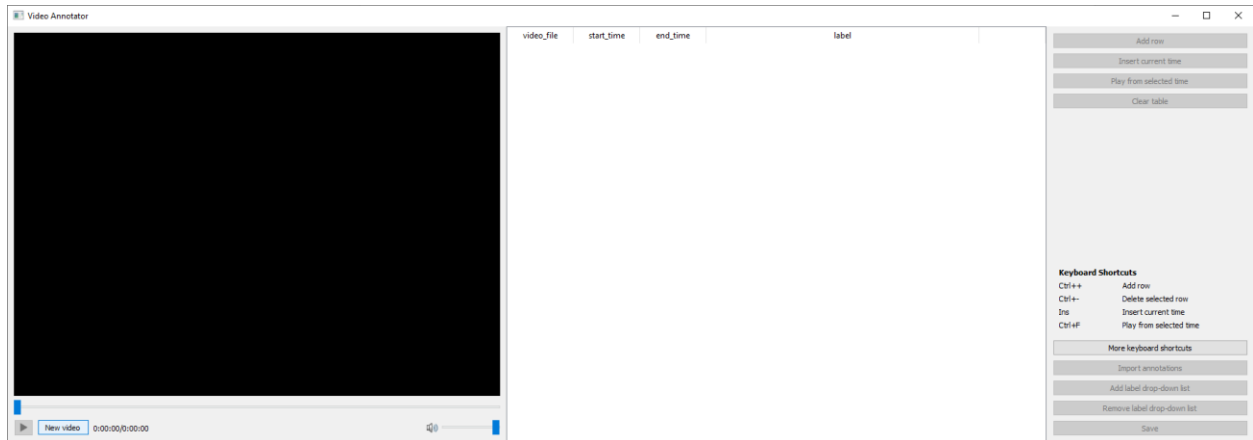
Using the video annotator

Once the video annotator is launched, you need to first import a new video.

Video format

It is recommended to convert the video to MKV format for more precise position selection.

```
ffmpeg -i sample_video.mp4 -c:v copy sample_video.mkv
```



- Import new video: Click on “New video” button to select video

After importing the video, you can either create a new annotation file or import an existing annotation file. If necessary, you can also add a drop-down list of labels.

Annotation file format

	A	B	C	D
1	video_file	start_time	end_time	label
2	sample_video.mkv	0:00:00	0:02:10	sample_label_1
3	sample_video.mkv	0:02:10	0:03:31	sample_label_2
4	sample_video.mkv	0:03:31	0:03:51	sample_label_3
5				
6				

sample_video_annotations

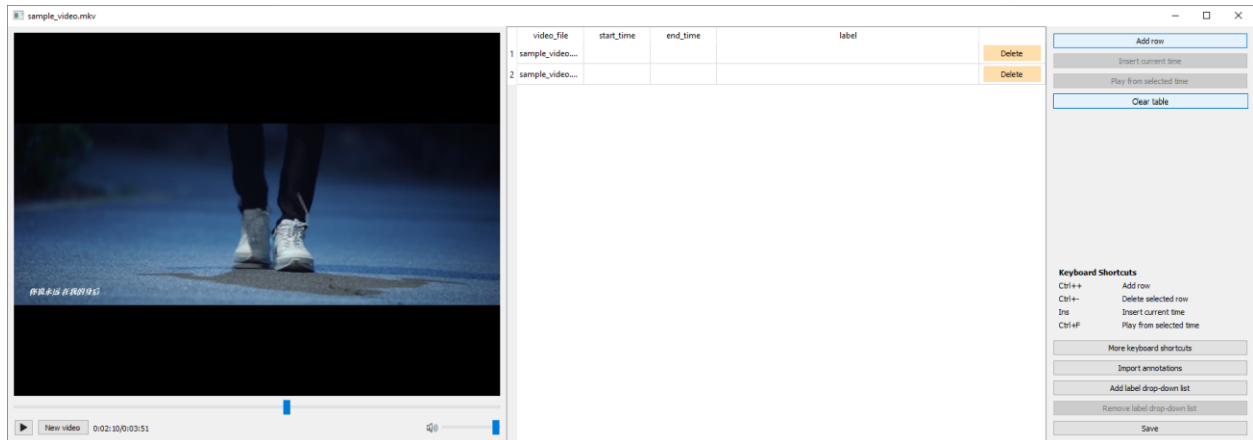
The imported annotation file must be in CSV format and contain the following columns: “video_file”, “start_time”, “end_time”, “label” (refer to “annotations/sample_video_annotations.csv”)

Label file format

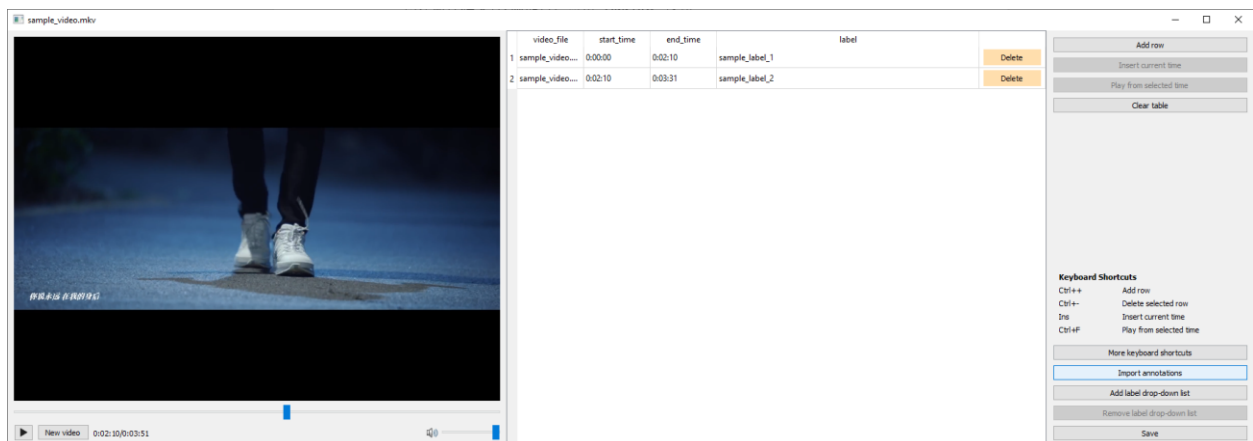
	A	B	C	D
1	label			
2	sample_label_1			
3	sample_label_2			
4	sample_label_3			
5				
6				

sample_video_labels

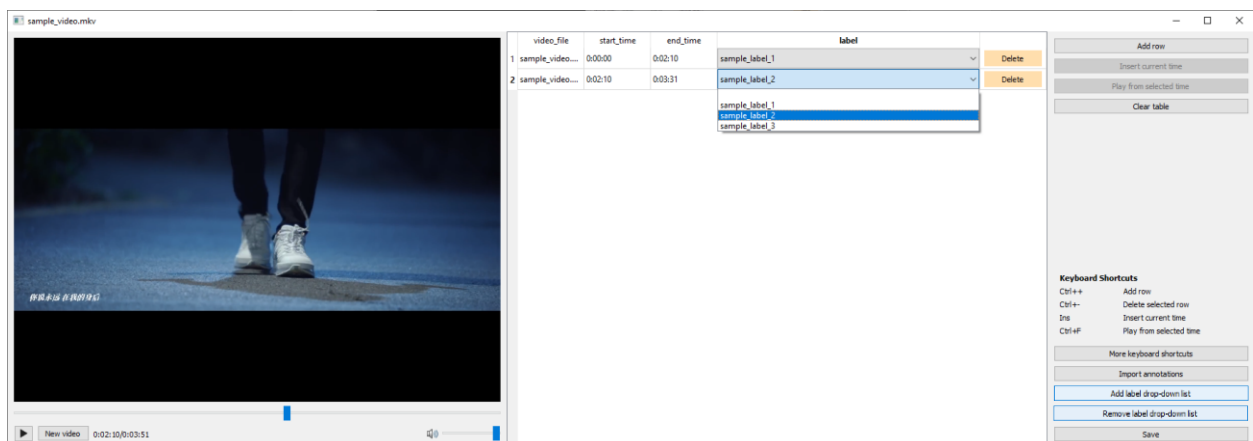
The imported label file must be in CSV format and contain the following columns: “label” (refer to “labels/sample_video_labels.csv”)



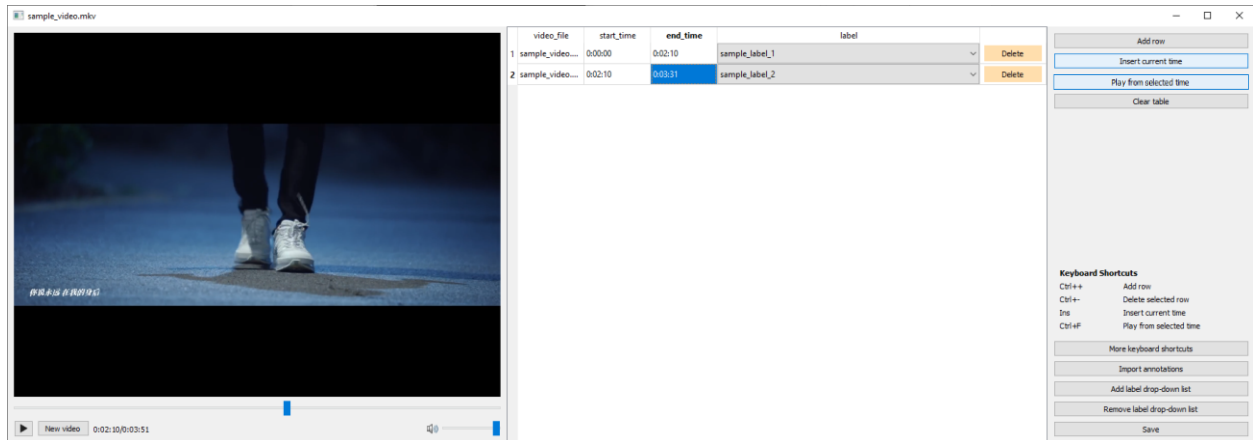
- Create new annotation file/Add row: Click on the “Add row” button
- Insert row: Select any cell in the previous row and click on the “Add row” button
- Edit cell: Double click the cell
- Delete row: Click on the “Delete” button at the end of the row
- Clear table: Click on the “Clear table” button



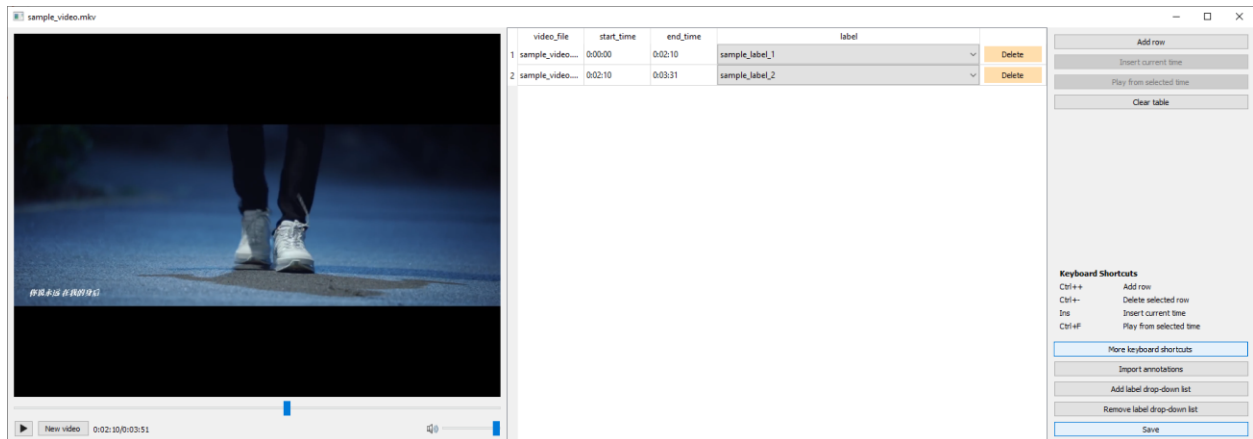
- Import existing annotation file: Click on the “Import annotations” button to select the annotation file



- “Add label drop-down list: Click on the “Add label drop-down list” button to select the label file
- Remove label drop-down list: Click on the “Remove label drop-down list” button



- Insert current playing time: Select any cell in the “start_time” or “end_time” column and click on the “Insert current time” button
- Play video at selected time: Select any cell with time data (H:MM:SS) in the “start_time” or “end_time” column and click on the “Play from selected time” button



- View keyboard shortcuts: Click on the “More keyboard shortcuts” button
- Save annotations: Click on the “Save” button
 - Annotations will be saved to “annotations/(video_title)_annotations.csv”
 - Label dropdown list (if any) will be saved to “labels/(video_title)_labels.csv”

During editing, the video annotator will automatically back up data to the temp folder. After importing a new video or exiting the video annotator, the earlier backup files will be automatically deleted.

Keyboard Shortcuts

Video player

Key press	Action
Spacebar	Play/Pause video
Right arrow	Fast forward 5 seconds
Left arrow	Rewind 5 seconds

Annotation table

Key press	Action
Ctrl++ (or Ctrl+Shift+=)	Add row
Ctrl+-	Delete row
Arrows	Move between cells
Tab	Move to next cell
Backtab (Shift + Tab)	Move to previous cell
Spacebar	Edit cell
Ins	Insert current time
Ctrl+F	Play from selected time
Ctrl+X	Cut cell content
Ctrl+C	Copy cell content
Ctrl+V	Paste cell content
Ctrl+Z	Undo
Del	Clear cell content
Esc	Deselect cell
Ctrl+S	Save