

# Video Methods Analysis App

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This app enables you to:

- find, open, and play three views of video files stored on your computer.
- step forward and backward through a video.
- record comments synchronized with video time.
- add your comments to a table displayed on this webpage.
- return to a desired location in the video by clicking on the comment or time of interest in the data table.
- print or download your comments and times as CSV for additional analysis.
- upload a CSV file for continued analysis of the video.
- capture and display a frame from the video.
- record the X and Y coordinates of desired points in the captured frame.
- You can print or download the data table as a CSV file for further analysis.  
The table displays the video time at which each comment was recorded.

The video analysis webpage is shown in Fig 1.

## 1. Loading the video:

- a. Clicking on the “Find & Load Video File” button (upper left) button opens a finder window for finding and selecting the video you want to analyze.
- b. The window below the “Find & Load Video File” button displays three views of the video.
  - i. By default, these views are offset by 0.1s to help you track the video's movements.
  - ii. The offset time can be changed by entering a new offset time value into the text box and pressing the “Apply offset” button in the frame below the video display frame.
- c. The video player in this app supports video files up to 1080 resolution. 4K videos must be saved with a lower resolution to be used with this app.
- d. The app provides a link to a sample video that can be downloaded to gain familiarity with the app (see link in upper right corner).

## 2. Video controls

- a. The video controls are located immediately below the video. The controls include:
  - i. A “Play/stop” button
  - ii. A row of buttons -10.0s, -1.0s, -0.1s, -0.01s, +0.01s, +0.10s, +1.0s, and +10.0s enable you to advance the video forward or backward in the specified time increments.
  - iii. You also can specify a custom step size for moving forward and backward.
- b. The times at which the video was stopped are displayed below the corresponding video windows.

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Find & Load Video File (Res≤1080)
Load Data File (previous analysis) [Sample video](#) (right click & "save link as")

VideoName: attachClips.mov  
Video Length (s): 20.118



8.2s



9.2s



10.2s

Play ← -10s -1.0s -0.1s -0.01s — +0.01s +0.1s +1.0s +10s →

Specify time steps:  Back Forward      Specify video offsets:  Apply offset

Frame Capture

Position cursor over target in screenshot & click mouse to save Location

Mouse Location: X= 244, Y= 49



Enter task attributes (do no use commas):

Right Hand		Left Hand		
<input type="text" value="reac for cards"/>	<input type="text" value="Rt force"/>	<input type="text" value="move/position clips/cards"/>	<input type="text" value="15"/>	<span>Record</span>

t (sec)	RH Action	RH Force	LH Action	LH Force	Points
7	grasp/move cards	15	grasp/move clips	10	59;98;212;94
8.2	move/position cards	15	open/move/position clip	40	88;133;174;126
9.2	reac for cards		move/position clips/cards	15	105;142;162;126

Print Data Table

Save Data To csv File

Fig 1: The desktop website for the video analysis app shows 3 views of a video “attachClips.mov” that is 20.1 seconds long. The video displays and displaced 0.1s. Observation data have been entered and recorded at 7, 8.2, and 9.2 seconds.

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3. Comments
  - a. The App provides 4 fields for you to enter comments.
  - b. These are labeled RH Action, RH Force, LH Action, and LH Force, but any desired information can be entered into these fields.
  - c. It is advisable to enter the desired field names into the first row if they are changed.
  - d. It is advisable not to use commas in the comment fields. Use “;”, “/”, or other characters. Commas create problems if the data are saved as a CVS file and then opened in a spreadsheet app (each comma will create a separate column).
4. Data storage:
  - a. Reloading the webpage erases all data and breaks the connection with the video. Deliberate action is required to print or save data as CSV files (see below).
  - b. You can return to the video time corresponding to a comment by clicking on that time in the table with your mouse or finger.
  - c. The times and comments can be saved as a generic CSV file and uploaded to a spreadsheet, such as Excel or Google Sheets, for further analysis.
  - d. The CSV file can be uploaded to this web app at a later time for continued analysis of your video.
5. Printing/saving data
  - a. The data table can be printed by clicking the “Data Table” button in the lower left corner.
  - b. The data table can be saved by clicking the “Save Data to CSV File” button in the lower left-corner.
  - c. The data can be copied and saved by highlighting rows and columns of interest in the data table and using the appropriate copy-and-paste commands on your computer.
6. Extraction of individual video frames
  - a. The app also enables you to extract individual frames from the video at any time.
  - b. Individual frames are displayed next to the video.
  - c. Frames can be saved by right-clicking on them and selecting “Save Image As.”
7. Determining the planar location of arbitrary points in a frame
  - a. You also can record the x, and y coordinates of arbitrary points on the frame and save them with your comments
  - b. The Coordinates are in pixels with respect to the upper left-hand corner of the frame.
  - c. You can record as many points as you like. The points will be stored as a string of x-y pairs, separated by semicolons. They can be parsed into separate columns in a spreadsheet or other app.