

Tracker Program Usage Notes

The 'Tracker' application we are using was developed as a free and video analysis and modeling tool as a subset of the open source physics group. It is used to track objects as they move through a video. You can calibrate the image with known measurements, and specify the mass of the objects involved to get accurate results.

Setup the video

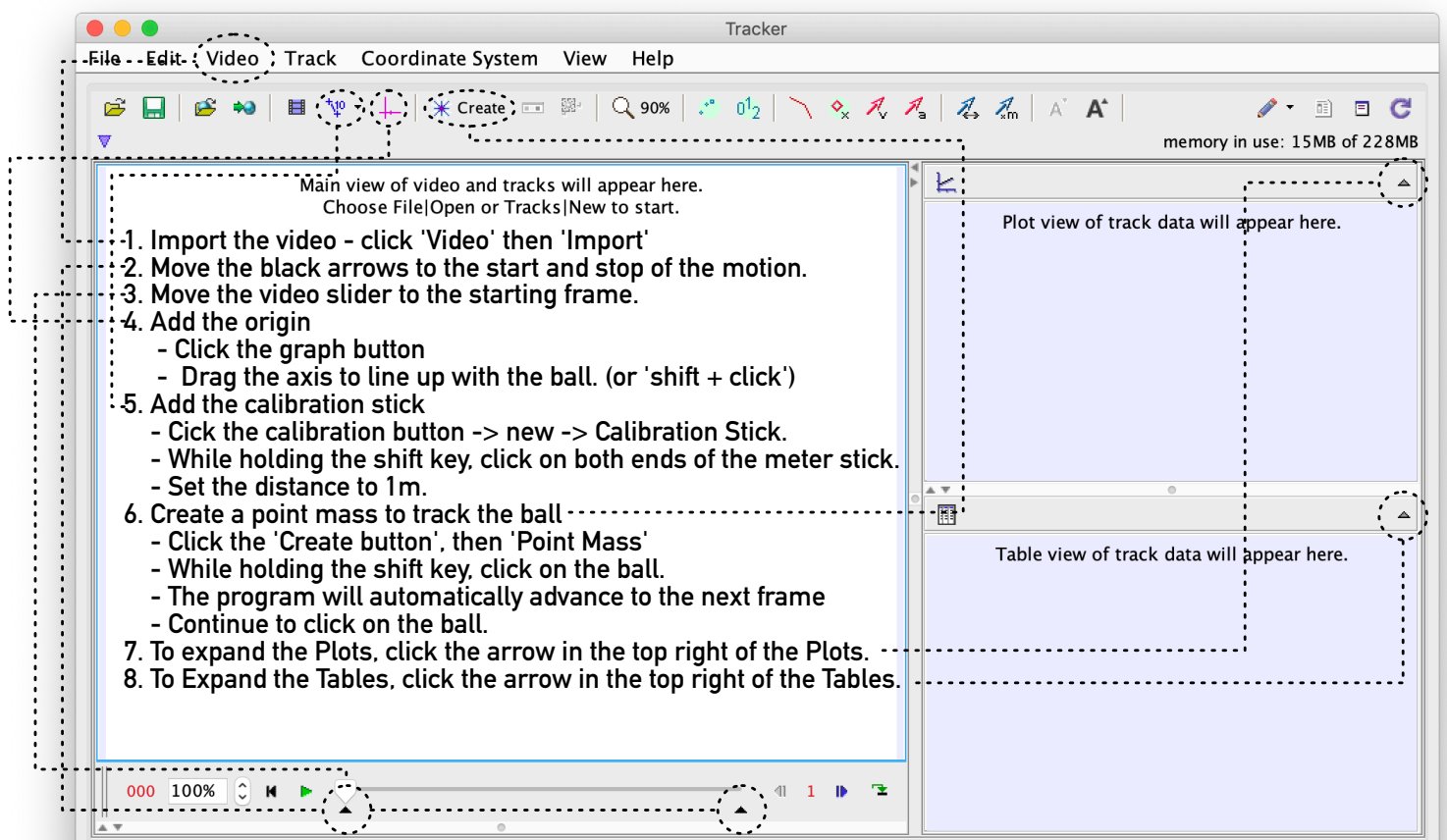
Importing To add a video, click the 'Video' menu then 'Import'.

Start/stop Drag the black arrows at the bottom of the playback bar to where you want to start/stop.

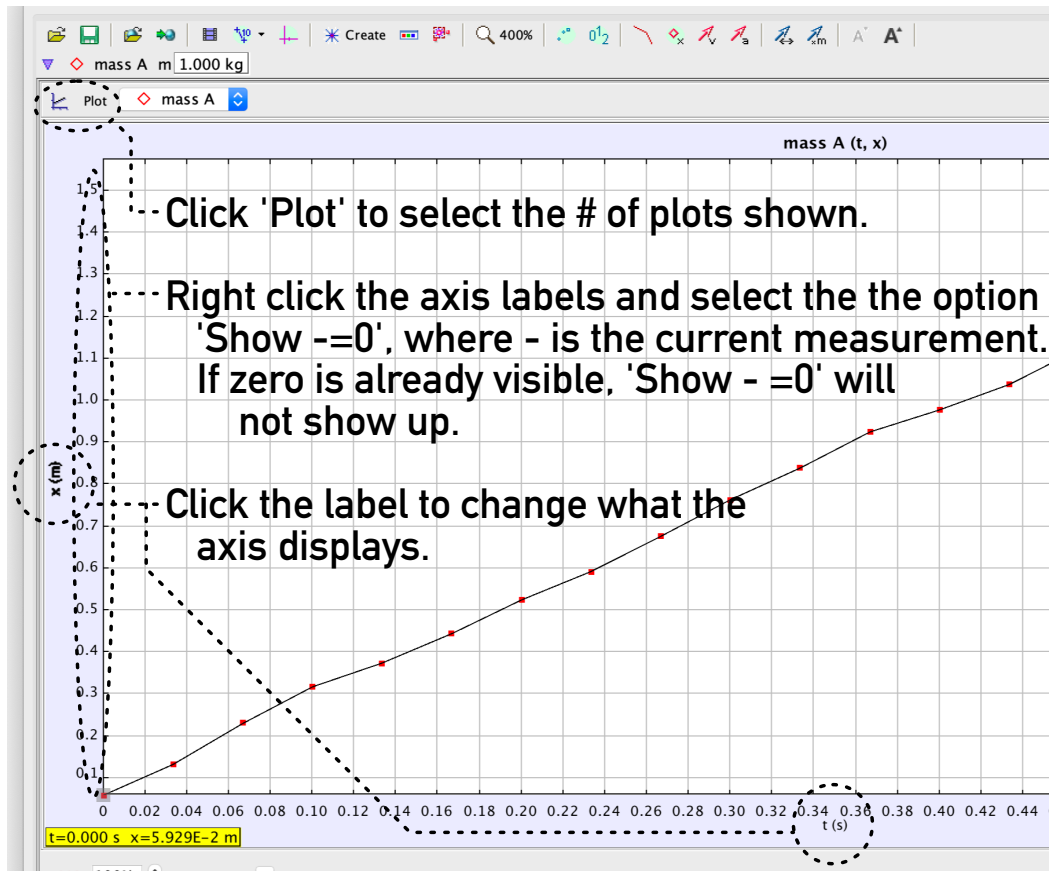
Origin First reset your video to the first frame by selecting the \leftarrow arrow to the right of the \rightarrow arrow next to the video playback bar. Click on the origin button in the main toolbar. Drag the origin over to the starting position.

Scale Select the 'Calibration Tool' button, then 'New', then 'Calibration stick'. Then while holding the 'shift' key, click on the two ends of the meter stick. Once you have set the calibration stick, set the length to 1m.

Tracking Click the 'Create' button on the top menu, then 'Point mass'. While holding the 'shift' key, click on the same location of the object you are tracking. After each click 'Tracker' will automatically advance to the next frame.



Setting up the Plots



Setting up the Tables

mass A m 1.000 kg

Table mass A

t (s)	x (m)
0.000	
0.033	
0.067	
0.100	
0.133	
0.167	
0.2	
0.2	
0.2	
0.3	
0.3	
0.3	
0.4	
0.4	
0.4	
0.5	
0.5	
0.5	
0.6	
0.6	
0.667	
0.700	

Visible Table Columns

mass A

☒ x ☒ y ☐ r ☐ θr

☐ vx ☐ vy ☐ v ☐ θv

☐ ax ☐ ay ☐ a ☐ θa

☐ px ☐ py ☐ p ☐ θp

☐ θ ☐ ω ☐ α ☐ K

☐ step ☐ frame ☐ pixelx ☐ pixely

☐ L

Define... Text Columns Close

To add columns:

- Click the 'Table' button
- Select the columns you want to add