

Selecting the clip settings icon from the menu in the Tracker software.

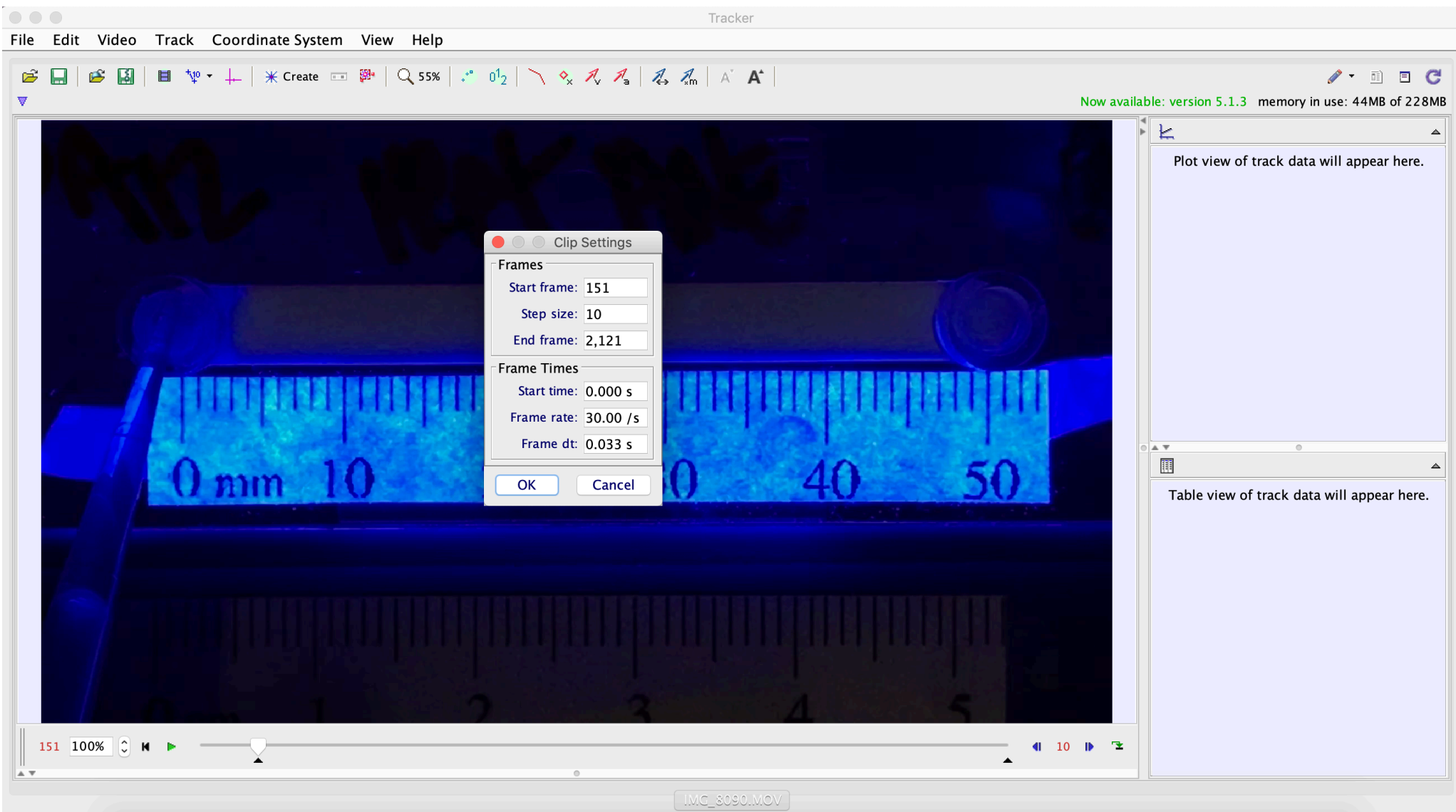
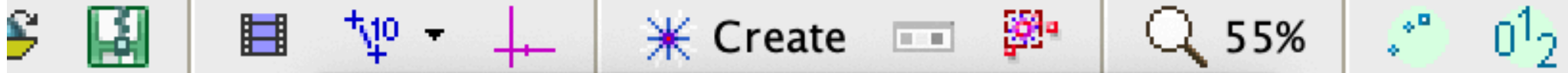


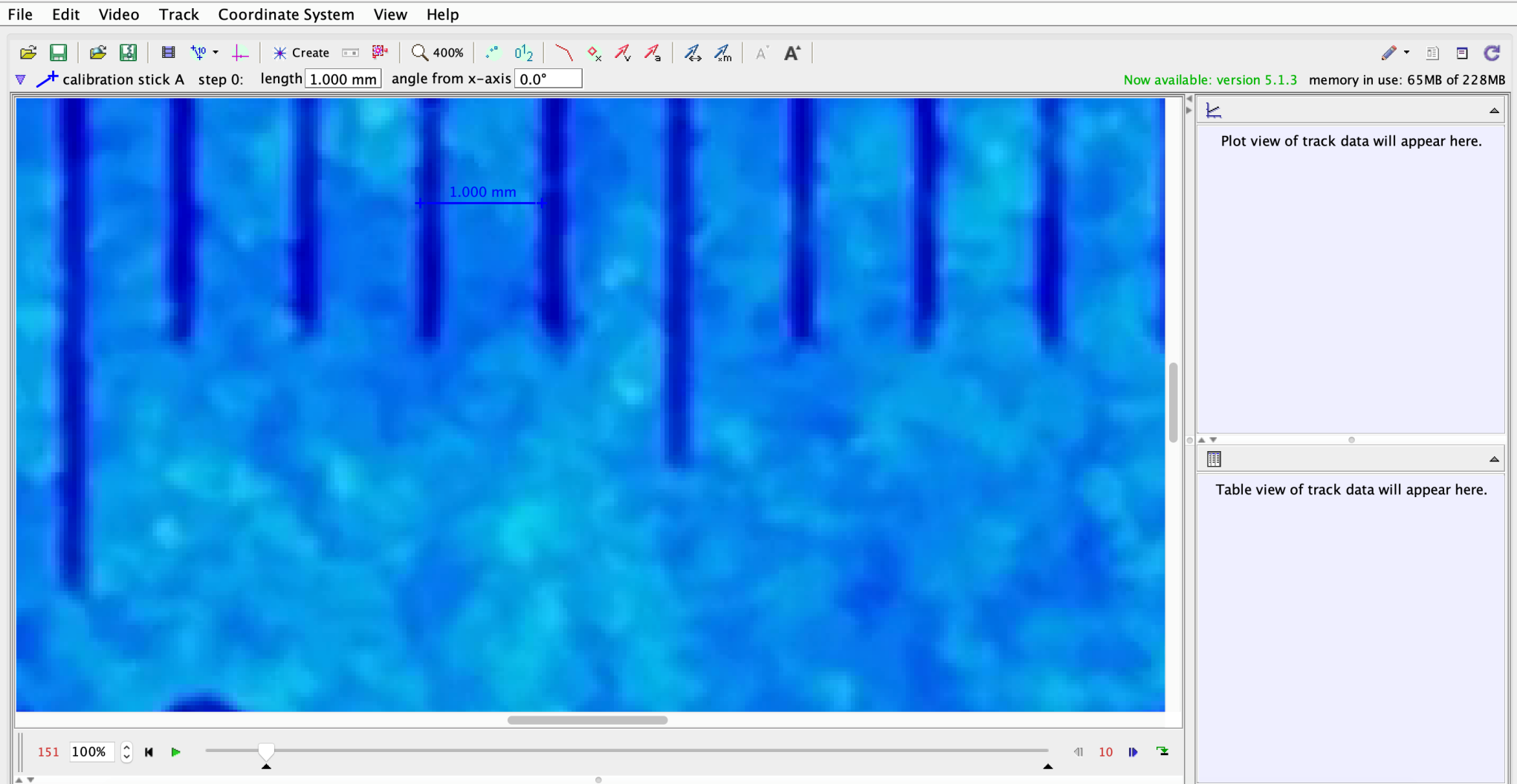
Image from Tracker that is showing the wet and dry powder at approximately 3 mm on the taped ruler at the initial time step.

Video Track Coordinate System View Help

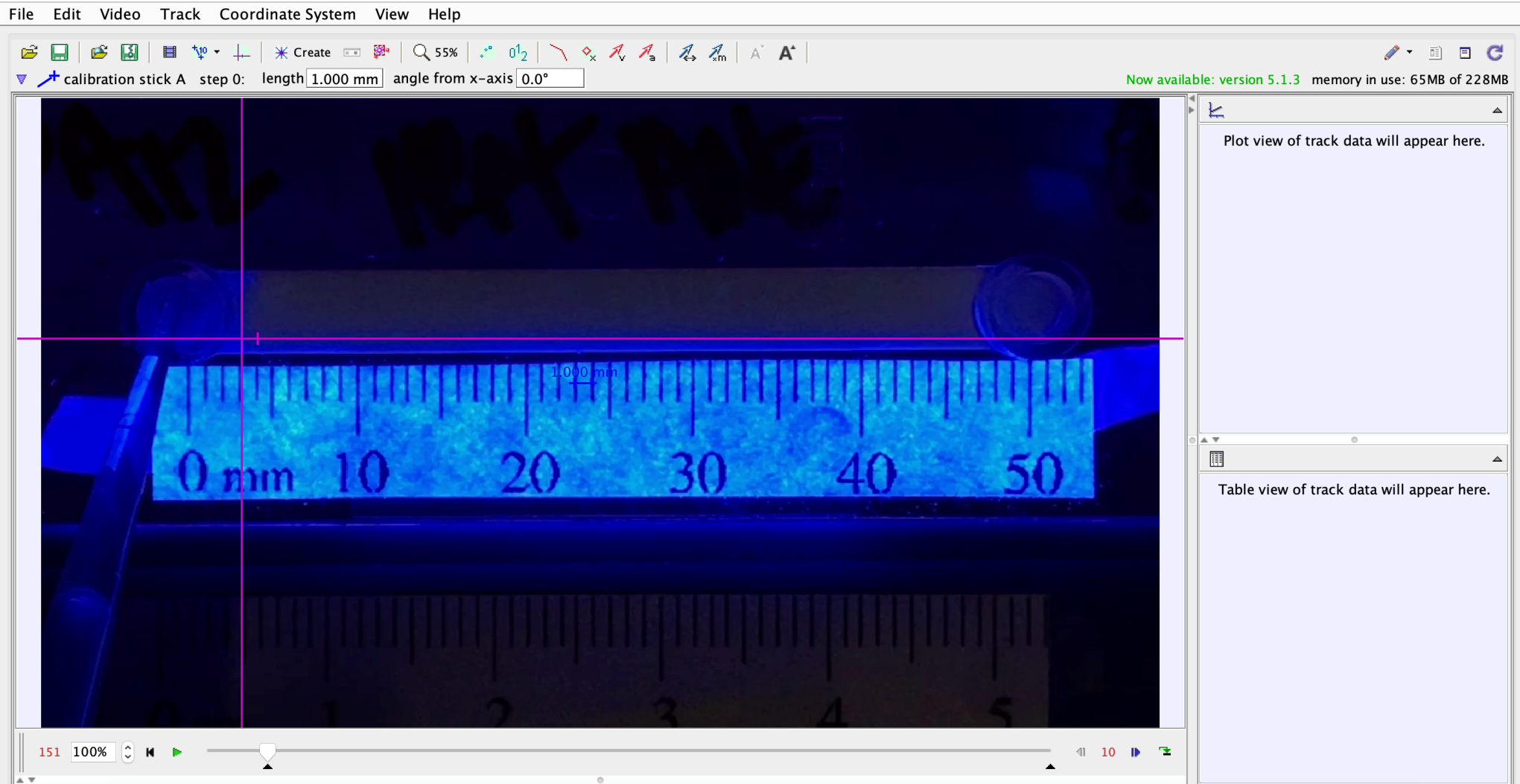


- New ▶
- Calibration Stick
- Calibration Tape
- Calibration Points
- Offset Origin

Selecting “Calibration Stick” from the Calibration Tools icon to set the pixel distance that is based on the ruler that is taped below the flow cell.

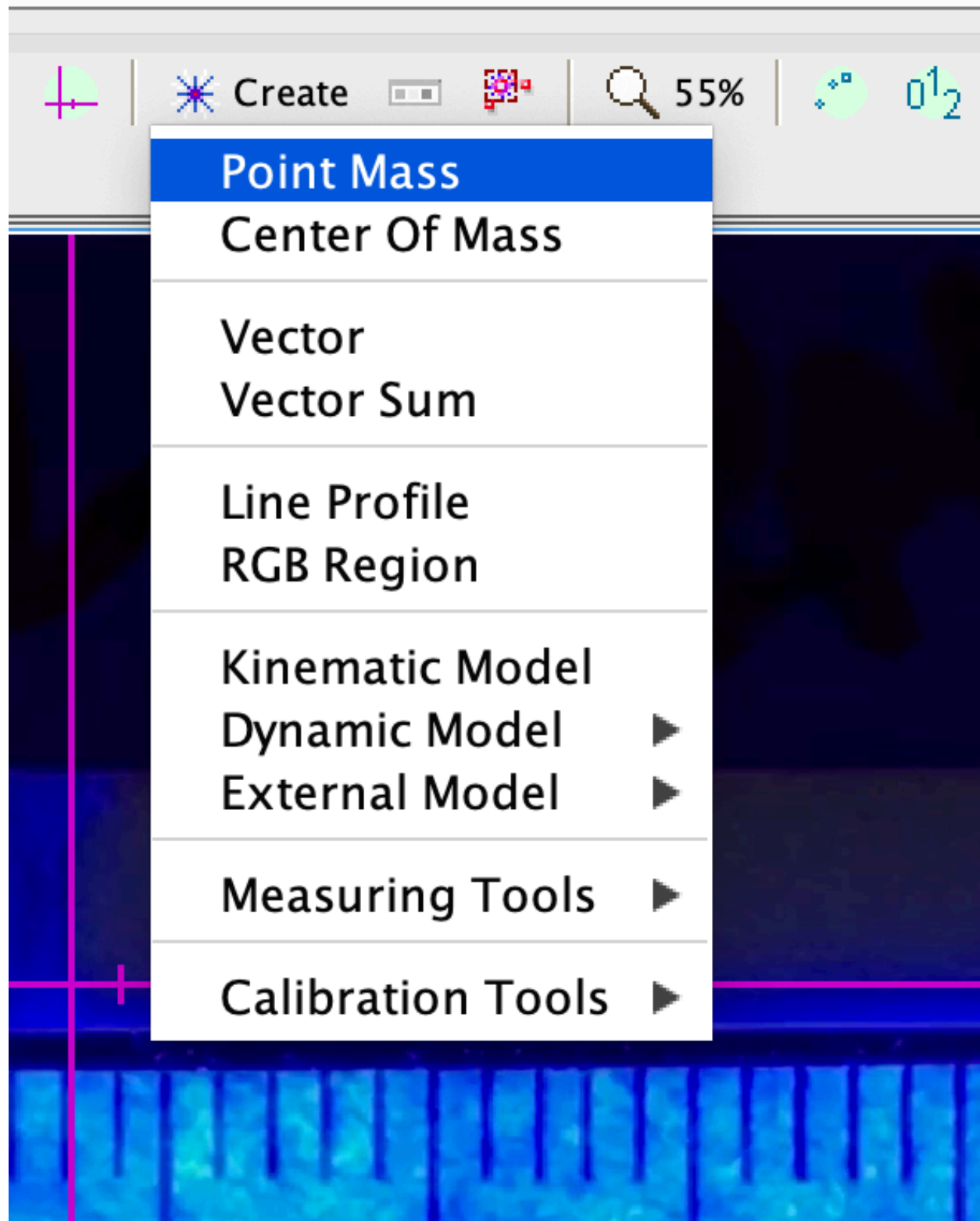


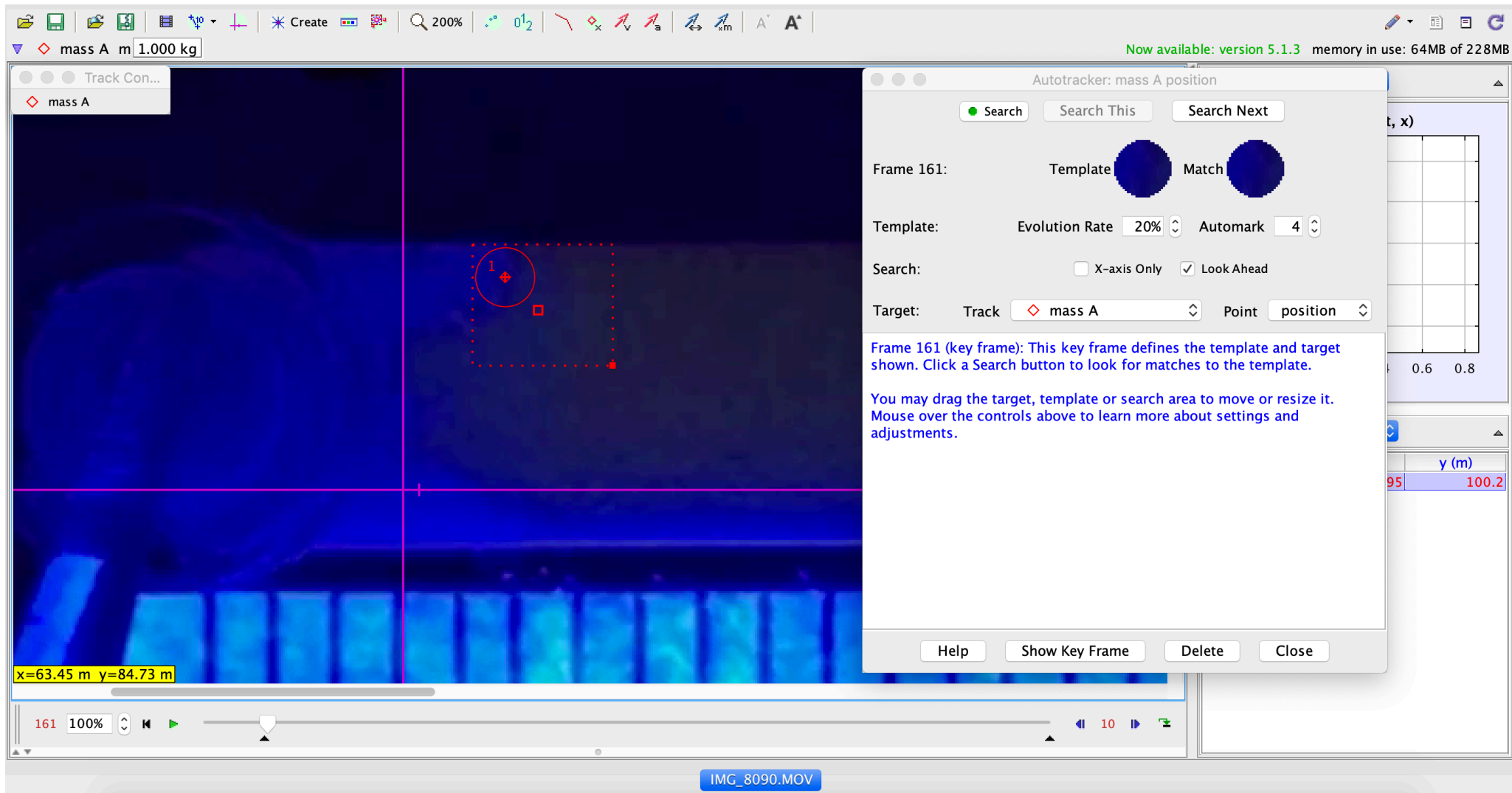
Implementation of the Calibration Stick in Tracker to define the distance on 1 mm in real space relative to the pixels in an image.



Placement of the coordinate axis (that is selected from the “Show Coordinate Axis” icon) tool onto the microfluidic flow cell.

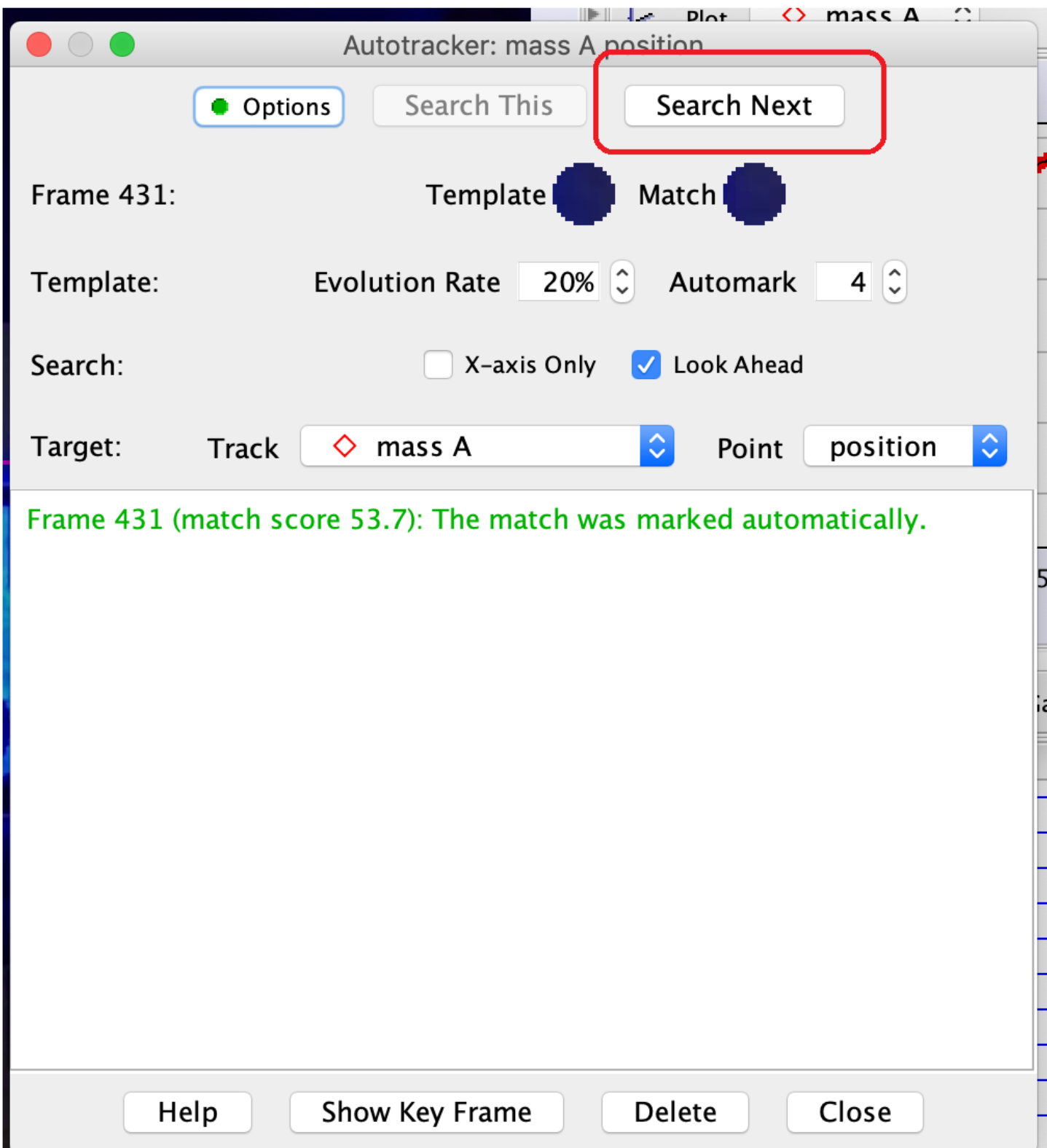
Visual instructions to add a point mass, a point-like object representing a moving mass, to the video file for Tracker to track.





A defined search area that is shown by the red rectangle with the dotted lines. Tracker will search inside that defined box for the interface between the wet and dry powder.

Programming the autotracking feature in the Tracking software using the "Search Next" feature.



mass A m 1.000 kg

Track Con...
mass A

Now available: version 5.1.3 memory in use: 79MB of 228MB

Autotracker: mass A position

Options Search This Search Next

Frame 431: Template Match

Template: Evolution Rate 20% Automark 4

Search: X-axis Only Look Ahead

Target: Track mass A Point position

Frame 431 (match score 53.7): The match was marked automatically.

Help Show Key Frame Delete Close

x=100.5 m y=98.23 m

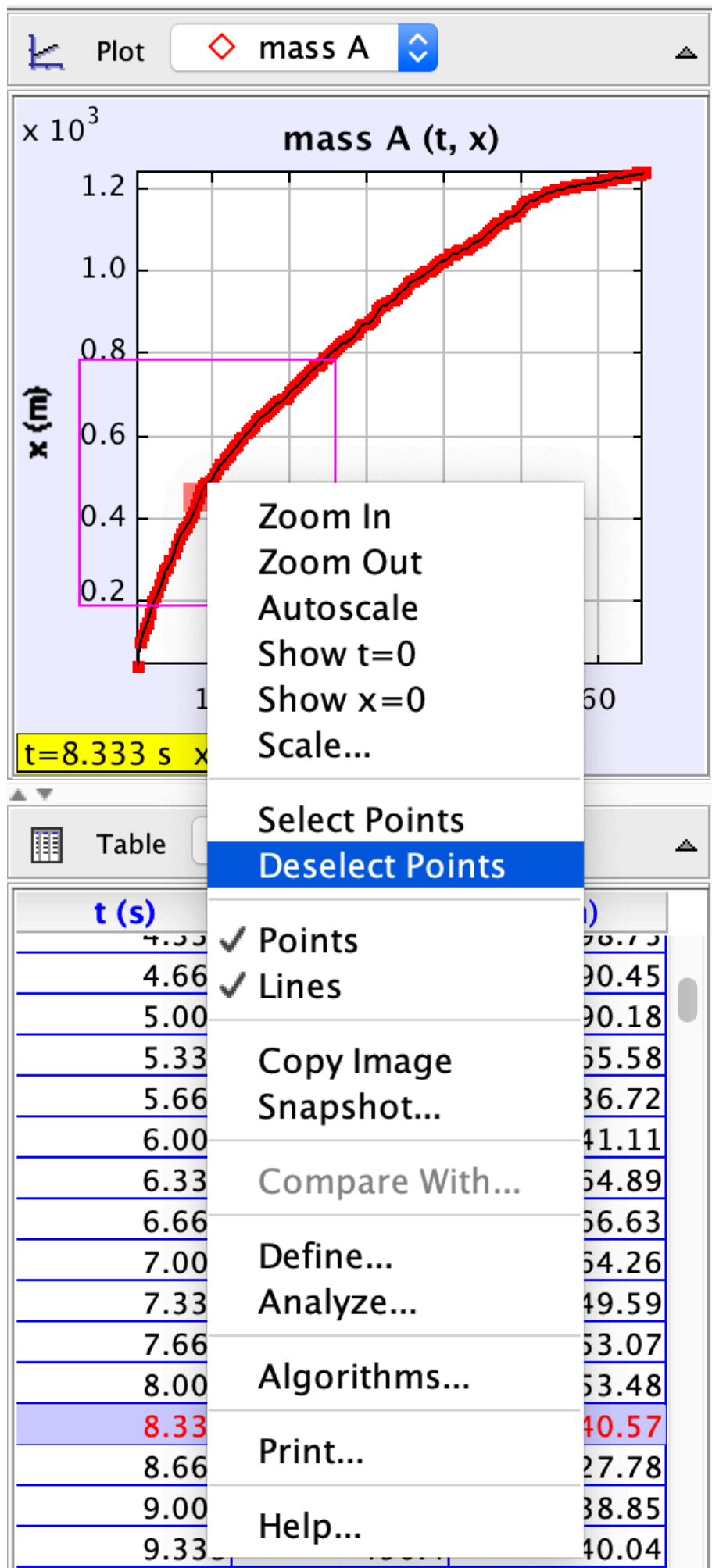
431 100%

IMC_8090.MOV

Time (s)	X (m)	Y (m)
8.000	434.4	53.48
8.333	450.5	40.57
8.667	470.3	27.78
9.000	482.0	38.85
9.333	490.4	40.04

The image of the software measuring the point mass as the fluid progress through the channel.

Visual instructions on how to deselect points if an error occurred during the imaging.



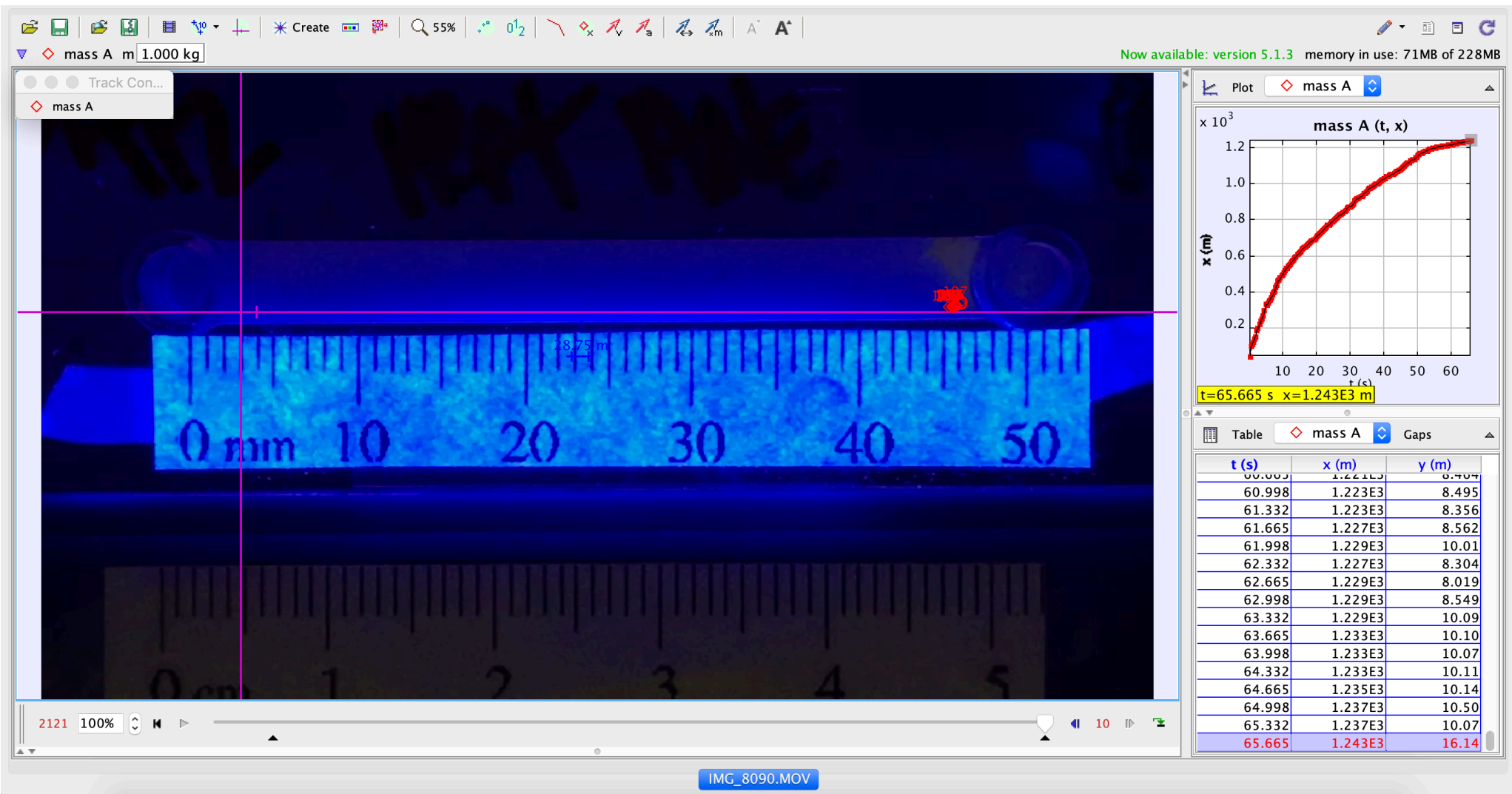


Image of the completed software tracking as the flow front has reached the end of the channel. A real time plot of distance versus time can be seen, and the data for the plot just below the plot.