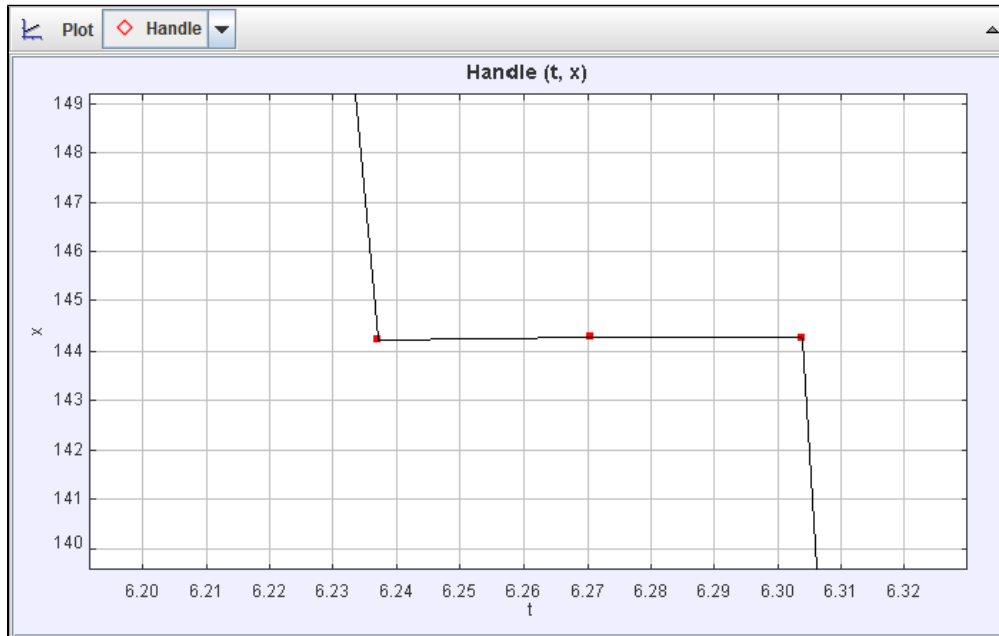


Monday 07-01-13 AL

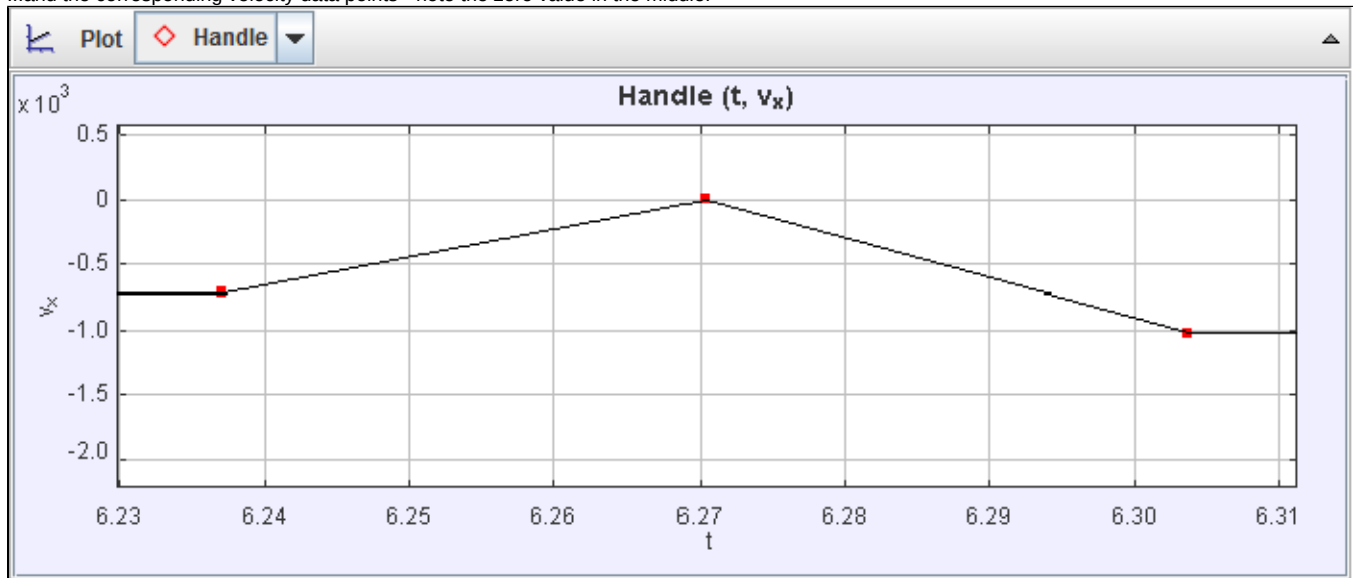
July commences with an onslaught of cloud blood.

Today we used Cabrillo's Tracker program to finish gathering the position vs. time data from each of the four videos (stationary, slides, dynamic, Rowgometer). The only problem seems to be that every three frames are the same; Tracker seems to calculate velocity - 1st derivative of position - merely as the slope between two successive position data points, so there are many near-zero values in the velocity data, and the acceleration is pretty wonky.

Ex. three successive position data points:



...and the corresponding velocity data points - note the zero value in the middle:



These jumps in velocity values result in acceleration values that oscillate from negative to positive to negative and so on. We need a smoother graph of acceleration.

EDIT: This redundancy problem is easily solved by changing the frame step size to 2 or 3 (located to the right of the frame slider, underneath the video display).