Actuel 1.5.1 Beta for the High-Speed 9103 Picoammeter README

There are only a few changes to Actuel's interface made to accommodate the High-Speed option, otherwise the existing documentation remains up-to-date.

1) There is a checkbox under the sampling rate that enables high-speed. The unit can be run at lower-speeds also - this is useful for using the same 9103 computers that don't support faster USB rates. Once the box is checked, Actuel will remember and set for high-speed the next time it is run.

2) At speeds faster than 25 ms, Actuel averages every 10 data points for the main display. It's not really possible to see changes faster than that.

3) It's suggested you use a fixed range for the fastest (2 ms) speed - this is a function of the 9103, not the software. The overhead for Auto-range will slow down sampling at that speed.

4) The data recorder and graph will only operate at the fastest speeds (< 5 ms) on very vast processors. We're working to optimize this so it will work with slower PCs also.

5) The data recorder and graph will work well at the fastest speeds if you are a) recording every 'n' points or b) averaging every 'n' points (this can be accessed by the Show Options button). For example, if you are operating at 2 ms sampling rate, but averaging every 10 samples, most PCs will be able to keep up. This is the most likely use-case for high-speed sampling, since you are effectively still sampling quickly, but averaging out noise.