COMP 4100 Tensile-Testing Software Potential Real-Time Plotting Methods

Option 1: Epoch

Software main page- <https://epochjs.github.io/epoch/>

Getting started page- <https://epochjs.github.io/epoch/getting-started/>

Notes

* Need to download Epoch charting library and requires use of a package manager
* Supports Real-time line graphing which is useful for our stress/strain graphs
* Java compatible?(cannot find confirmation)

Option 2: JFreeChart

Main page- <https://www.jfree.org/index.html>

Tutorial page- <https://www.vogella.com/tutorials/JFreeChart/article.html>

FAQ page- <https://www.jfree.org/jfreechart/faq.html#FAQ13>

Notes

* Free download
* Java compatible and works with eclipse and the the java swing library which can make it compatible with the rest of our GUI if we use swing
* Does support real-time charting but updating the chart multiple times per second will be an issue as it “results in high CPU load” and this may impact our results.

Option 3: XChart

Demo page- <https://knowm.org/how-to-make-real-time-charts-in-java/>

Download/Overview page- <https://knowm.org/open-source/xchart/>

XChart API- <https://knowm.org/javadocs/xchart/index.html>

Notes

* Also Java Swing compatible
* Free download
* Supports real-time plotting
* Possible Java alternative if JFreeCharts chart update restrictions prove to be a problem by impacting our data.

Stackoverflow thread containing other potential options

<https://stackoverflow.com/questions/1389285/real-time-graphing-in-java>