**Power GUI Functionalities**

**To Implement (9/07):**

Cursor Placement

* Allow cursors to be placed when the area above the char is NOT selected.

Serial Read

* Seems to be dropping a lot of data points, need to reduce data loss.

**To Implement:**

Door Knocking Algorithm (Find Device COMM PORT)

* Use GET\_ID command defined in the protocol to get the device ID, and hence find the device.

Read Voltage, Current Power and Temperature Data

* Use SLAVE\_DATA command to read the power, current, voltage and temperature data

Cursors (Should Only Be Accessible When the Charts are NOT auto-updating)

* Get Cursors to display on the main chart
* Allow the users to move cursors on the main chart
* Change the statistics to be associated with the cursors
* Change the histogram to be associate with the cursors
* Change the region highlighted based on the cursors

**To Implement (Old):**

* Implement listener for change in device connected status
* Update the histogram colour scheme to match main chart
* Recovery when the power monitor is unplugged -- Test
* Auto-detect of COM port when device is plugged in -- Test
* Model will not update graph data unless buffered data is added to by serial comms thread --FIX
* Configuration options:
  + Limit on the number of samples displayed and recorded
  + Stop/Start Capture
  + Axes scaling
* Remove inappropriate graph options: differences in allowed options during capture and during stopped capture are likely.
* Auto rendering of the graph axes scales and number of displayed values could be improved.
* Chart renderer needs to be fixed for zoom.
* Spacing and fonts used need to be changed – consider mono-spaced fonts

**Implemented:**

**Determining device COM port – Are You My Mother Algorithm**

|  |  |
| --- | --- |
| **Command Name** | **String Code** |
| IDENTIFY\_CHILD | “Are you my baby?\n” |
|  |  |

**Commands**

IDENTIFY\_CHILD

**Data byte count: n/a  
Data Structure:** A string consisting of 16 characters  
**Description:**Command is used to identify the COM PORT on which the device is connected. The device will respond with the command string “Hi Mum\n” when it receives the IDENTIFY\_CHILD command.