A master portion of code controls a series of devices through a raspberry pi UART to RS485 conversion through serial comms. It is able to call the classes for each device that is on the network through their respective module.

The class/subclass/functions/methods of my module perform the following:

Open serial ports and define them.

Receive commands and queries from the master device and pass them to its hardware voltage device. Converts ASCII <-> UTF-8 as required. Prints or returns responses verifying states and commands that were processed. Allows for parametrization of certain class variables such as an address byte/hex.

Perform a checksum calculation when sending and receiving, I believe will be necessary.

Prints of returns confirmation of device accepting command. (IE, voltage increased from 10kV to 30kV, imperative silence is not received back.)

I have commented what I believe will be needed overall to complete this in a mixture of functions and English description. For having never worked in Python before, I’m sure there will be some issues I need to work out or correct even if what I have is implemented correctly – I’m just not sure what yet. Even a couple comments about things that look like they WILL or WONT work for what I need this to do would go a long way.

Thanks!

Jason