# Fun with Instrumentation!

## Objective

Observe use of the GET and POST form methods using a combination of Wireshark and MPLAB.

## Specifics

Download IP\_PKG\_12-2013.zip[[1]](#footnote-1) and run the project (Lesson 3.X) under the “RD14 Lesson 3” folder. Before building the project, make sure you modify the IP address specified in TCPIP ETH795.h to match the station that you are working at. This will be the address that you use with Wireshark to capture traffic to/from your PIC32.

1. GET Method
	1. Using Wireshark, capture the HTTP portion of the TCP packet where a new light setting is appended and highlight the header portion with the new setting.
	2. Using the Variables window of MPLAB, show the value of the pointer that points to the first character of the VALUE portion of the name/value pair during execution of HTTPExecuteGet().
	3. Using the MPLAB Memory View and the value of the pointer, show the data in memory. (You will need to toggle the address display to “Virtual Address” by right-clicking on a specific address.)
2. POST method – Repeat the above, but focusing on the NAME portion of the third product (Product 2). (The information will now be in the data portion of the TCP packet.)

## Deliverables

E-mail a PDF of a report which includes your observations and selected screenshots taken using MWSnap (or similar) of the Wireshark result, the Variables window, and the Memory View.

1. Under 443\Handouts\Ethernet\PIC32\TCPIP Tutorials [↑](#footnote-ref-1)