

Lab #: Lab Name

1 Background/Motivation

Write a little bit about why this lab exists and how it might apply to industry.

2 Learning Outcomes/Objective

Write down the specific items which are considered important for moving forward to the next lab. Be as clear as possible. List skills and equipment familiarity.

- Outcome 1
- Outcome 2
- Etc.

3 Equipment

- Hardware
 - Laptop
 - Ethernet Cable
 - SEL-849
- Software
 - PuTTY

4 Procedure

4.1 Setup

4.2 Main Procedure

1. If not already available, install PuTTY for your operating system.
2. Connect PORT2A on the SEL-849 to the Ethernet port on the laptop.
3. Change the IP settings for the laptop Ethernet port.
 - (a) Right click on the network icon on the Windows task bar.
 - (b) Open Network & Internet Settings.
 - (c) Click on Ethernet on the side bar.
 - (d) Open Network and Sharing Center from the list of related settings.
 - (e) click on the Ethernet link listed next to connections.
 - (f) Click on properties.
 - Note: This will require admin access.
 - (g) Double click on Internet Protocol Version 4 (TCP/IPv4) to open its properties.

- (h) Select the radio button labeled Use the following IP address.
 - (i) Change the IP address to match the first 3 octets of the IP address on the SEL-849, and pick a unique final octet.
 - E.g. The IP address on the SEL-849 might be [REDACTED], so enter the IP address [REDACTED] in the field.
 - (j) Change the subnet mask to [REDACTED]
4. Open PuTTY.
 5. Change PuTTY settings to communicate with the SEL-849.
 - (a) Type the SEL-849 IP address into the Host Name box.
 - (b) Change Port to [REDACTED]
 - (c) Change Connection type to Telnet.
 - Note: It may be helpful to save these settings for later. This can be done by entering a name on for Saved Sessions and clicking Save.
 - Note: While in the PuTTY terminal, the backspace key will no longer work normally, to change what was written simply press the enter key to go to a new line.
 - Note: When the terminal starts there should be a line which reads 'TERMINAL SERVER', if this line is not present on terminal startup, close PuTTY and try again.
 6. Type 'ACC' into the command window, this will grant level 1 access to the SEL-849.
 - The password is [REDACTED]
 7. Type '2AC' into the command window, this will grant level 2 access to the SEL-849.
 - The password is [REDACTED]
 8. Change the name of the device.
 - (a) Type 'HELP' to show a list of commands available.
 - (b) Type 'SHO 1' to show the group 1 settings.
 - (c) Type 'SET TID'. This will give access to changing the common name of the device.
 - (d) Type a new name for the device, e.g. your lab group name and section.
 - (e) Press the enter key to set the new name.
 - (f) Type 'END' to stop editing settings.
 - Note: If the user continues to press the enter key, this will go through all subsequent settings in the group. This takes a long time, so try to avoid it.
 - (g) Type 'Y' to save the settings.
 - (h) Type 'SHO TID' to prove to the TA that the device name has been changed.
 - (i) Type 'EXIT' to close the terminal.
 - (j) Turn in a lab report with the below questions answered.

4.3 Measurements

4.4 Take Down

5 Report Questions