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This guide explains how to set up and test a serial to Ethernet bridge using the FLE Mustang. The example given here establishes a connection between Ethernet port 40 and UART 1 with UART 1 set to 115,200 baud, 8 data bits, no parity, and 1 stop bit. Any of these values can be changed with slight modification to the commands that are listed below.

Requirements:

- A Mustang Board
- An 802.3 Network supporting DHCP
- A PC with serial ports and a terminal client (such as HyperTerminal)
- The value of the Mustang's IP address assigned via DHCP (viewable via debug trace)
- A telnet client capable of connecting to arbitrary ports (PuTTY/Tenlet)

Setup:

- Connect your telnet client to port 23 (the default Mustang control port) at the Mustangs IP address. You can determine the IP address by monitoring UART#1 in debug mode.
- Issue the following commands in the control port to set up the UART:
 - baud 1 115200
 - stop 1 1
 - parity 1 none
 - databits 1 8
- You can now open your terminal client connected to the appropriate COM port using the settings established above.
- Now issue the follow commands in the control port to connect the UART to the Ethernet port:
 - connect 1 40
- You can now close your telnet connection to the control port if you wish.
- Open a telnet connection to port 40 at the Mustangs IP address.

Testing:

Depending on what telnet client you are using you may see a string of random characters coming from the UART. This is the telnet client sending the session data (term type, text color, etc) and is nothing to worry about.

You can now type characters into your telnet client. Depending on the client you use the characters may show up immediately or they may only be transmitted when you hit enter.

When you type into your terminal client, connected to the UART, the characters should appear immediately in your telnet client.

This provides a visual test to confirm that data is being passed back and forth. It also provides an easy way for you to test the settings that you are using for the UART and the Ethernet port. Once these parameters are set correctly you can connect a device to the Mustang and start using it for its intended purpose.