Serial to Ethernet Demo

Hardware setup guide

This document is a guide to setup the required hardware to demonstrate Serial to Ethernet application.

Hardware required:

- Motor Control board XP-MC-CTRL-L2 1V2
- XTAG2 (if program not flashed)
- Ethernet cable
- Power supply 5V
- 8 one-pin female jumper wires (http://www.sparkfun.com/products/8430)

Setup

1. Power up the Motor Control board and flash Serial to Ethernet application via XTAG2
2. Unplug power supply and XTAG2
3. Take the Motor Control board and short following pins (for loopback demo) on JP1:

Pin A – Port 8C	Pin B – Port 8A	UART Channel ID
19	39	
20	40	
21	41	
22	42	
23	43	
24	44	
46	47	

4. To demonstrate message passing using separate channels, short the appropriate pins. For example, if any message on Channel0 must appear on Channel2, then Channel0 and Channel2 must be shorted; short pins 19 – 41 and pins 21 – 39
5. Connect Ethernet cable between Motor Control board and a PC
6. Power up the motor control board

Demo

1. Once setup, on the connected PC, open a web browser and connect to http://169.254.196.178/ (or IP specified by you in the application)
2. If the webserver is configured to use dynamic IP, then please connect to the assigned IP
3. The UART settings page opens. You can now setup required configuration for channels
4. The Channel Identifier field represents the UART channel number
5. To read settings of an UART channel, select appropriate ‘Channel Identifier’ and click ‘Get’
6. To change any configuration setting for UART channel, modify by selecting from drop-down lists or enter value in the text field. Click on ‘Set’ to update configuration
7. Open a Telnet client (using Putty), with the IP address and port as configured
8. Usual demo is to echo any message typed in the telnet client
9. If the demo is to pass message between two ports, then open two Telnet clients.

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