



Using a Cross-over Cable with Logic's SDK Kit

Application Note 186

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Abstract

This application note explains how to use an Ethernet Cross-over Cable with Logic's Starter Development Kit.

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REVISION HISTORY

REV	EDITOR	DESCRIPTION	APPROVAL	DATE
A	James Wicks	Release	MA	12/11/03
B	James Wicks	Correction, Step #6, deleted extra period	MA	6/18/04

1 Introduction

By using a cross-over cable connection you can make a quick connection directly to your PC-- and you can avoid network traffic once you're connected.

2 Using the Cross-over Cable: A Step by Step Guide

1. Connect your cross-over cable to both your SDK kit and your PC. Make sure the device has the null-modem cable connected between its default debug serial and one of the PC's COM ports. In addition, open Platform Builder.
2. Create a Local Area Connection:
 - a. On your PC desktop, right click on the 'Network Neighborhood' icon. Select 'Properties.'
 - b. Right click on 'Local Area Connection' and select 'Properties.'



Figure 1: Click on 'Local Area Connection' and select 'Properties'

- c. Highlight 'TCP/IP' and click 'Properties'.

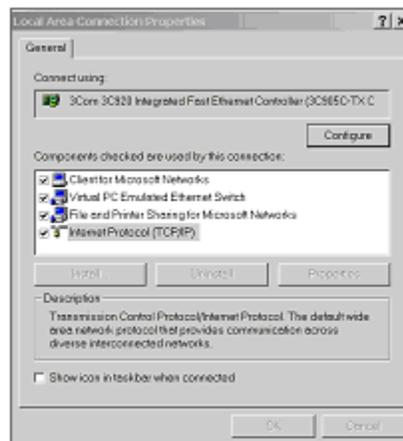


Figure 2: Highlight 'TCP/IP' and click 'Properties'

- d. Typically, 'Obtain an IP address automatically' is already selected. Choose the 'Use the following IP address' option and enter these values:
 - i. Address: 10.0.0.1
 - ii. Subnet Mask: 255.255.255.0

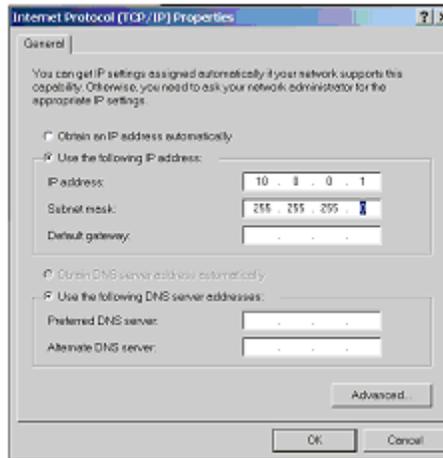


Figure 3: Choose 'Use the following IP address'

- e. Click 'OK'.
 - f. Click 'OK' and exit the 'Local Area Connection' Properties.
3. Open a software terminal emulator window (the example figure below displays Tera Term). In Tera Term, under the 'Setup' menu click 'serial port.' Set the baud rate to 115200, and select the COM port that the null-modem cable is plugged into.

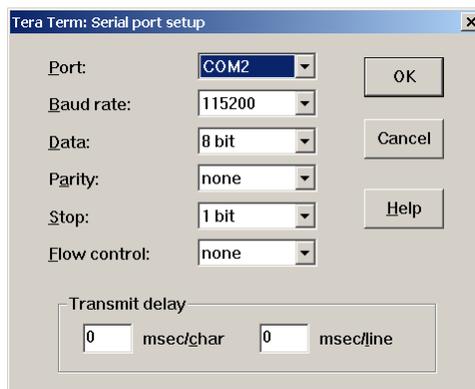


Figure 4: Tera Term Serial Port Set-up

4. Turn all of the device's dip switches off, then power up the card engine. The terminal window will display LogicLoader.
5. At the "losh" prompt, type "ifconfig." (For steps 5- 7, refer to Figure 5, below.)

6. Next, type “ifconfig sm0 10.0.0.2 255.255.255.0 10.0.0.1”
Press ENTER.
7. At the next prompt type “ifconfig” to make sure the settings are entered correctly.

```

Tera Term - COM1 VT
File Edit Setup Control Window Help
*****
                LogicLoader
*****
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All Rights Reserved.
Version BR0_release_1-2-pre1.2.0
*****

Available commands:
  load - download a binary image of type 'elf', or 'src'
  burn - burns the already-loaded image into flash device 'device'
  erase - erases 'device' from start_address for length bytes
  jump - jump to a loaded image, or [address]
  exec - disable cache & ints, then jump to a loaded OS, or to [addr]
  source - execute a series of losh commands stored in <filename>
  losh - renamed to 'source'
  w - write memory [of specified width] at addr
  x - examine memory with [width][format] at an addr for a [len]
  date - display the number of seconds since boot
  info - print information about: version, arch, mem, net, cpu
  help - print help for a single command or a group of commands.

losh> ifconfig
MAC Address: 00:08:ee:34:51:ac

sn0: down 10M half-duplex <412>
sn0:      mac: 0:8:ee:34:51:ac   ip: 0.0.0.0
        mask: 0.0.0.0   gw: 0.0.0.0
losh> ifconfig sm0 10.0.0.2 255.255.255.0 10.0.0.1
losh> ifconfig

sn0: down 10M half-duplex <412>
sn0:      mac: 0:8:ee:34:51:ac   ip: 10.0.0.2
        mask: 255.255.255.0   gw: 10.0.0.1
losh> ifconfig sm0 up
MAC Address: 00:08:ee:34:51:ac

```

Figure 5: Steps 5 - 7

7. Next, type “ifconfig sm0 up” – this enters the MAC address and connects your card engine to the PC.
8. Type “bootme &” at the next “losh” prompt. Then open Platform Builder.

9. In Platform Builder, click **'Target/ Configure Remote Connection.'** Then type 'Ethernet' under the 'Download' window; and type 'Ethernet' under the 'Kernel Transport' window.
10. Click 'Configure'. Then click on the correct 'LoCE_####' for your device, and click 'OK.'

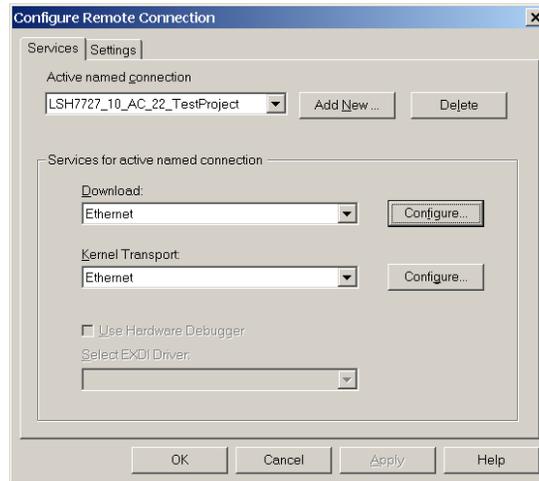


Figure 6: 'Target/ Configure Remote Connection in Platform Builder

11. In Platform Builder, select 'Target' and click **'Download/ Initialize.'** Click 'Yes' to enable KITL. A downloading window will appear if everything is entered and working properly, and the downloading process will begin.