

How to run the CMX-Example for the MCB167-Net Board

Application Note 155

(Preliminary)

Nov 9, 2000, Munich, Germany

by Matthias Hertel, Keil Elektronik GmbH support.intl@keil.com ++49 89 456040-0

CMX-Software is providing a small Example Program for the Keil MCB167-Net evaluation board that shows some of the Ethernet-capabilities of the board. The example project can be found on the Keil CD-ROM under `.\MCB167Net\CMX`. You also need:

- Keil MCB167 Net-Board with power-supply
- The Keil μ Vision2 C166 Evaluation Software (or Full Version)
- A 10Mbit-Ethernet Adaptor with 10BaseT-Jack
- A Level-5 RJ45/RJ45 crossover cable
- A Browser with JAVA-support (e.g. MS Internet Explorer 5, Netscape Communicator 4.7)

How to set up the board

You have to make sure that the jumpers on the board are set to the default settings.

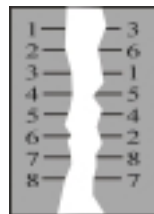
Then connect the board to the PC via serial cable(,which is shipped with the board). On the PC-side plug the cable into the Comm Port 2(if possible); use an adaptor if the PC only has 25-pin jacks. On the **MCB167 Net** use the **COM** jack.

Connect the Ethernet cable to **B1** on the **MCB167 Net** and to the Ethernet-card in the PC.

The wiring of a Lev.5 RJ45/RJ45 cross-over cable (T568B)

The crossover cable is an 8-wires cable with RJ45 plugs on both sides. The graphic on the right shows you how the cable is wired exactly.

You may buy this cable from an network accessories dealer.



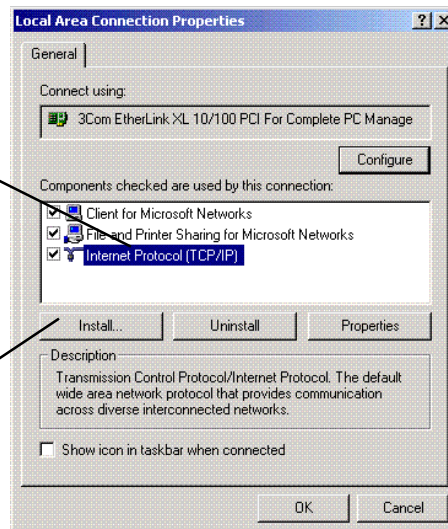
Power up the board with the power-supply.

Setting up the Software requirements

Install the μ Vision2 C166 evaluation software from the Keil CD-ROM.

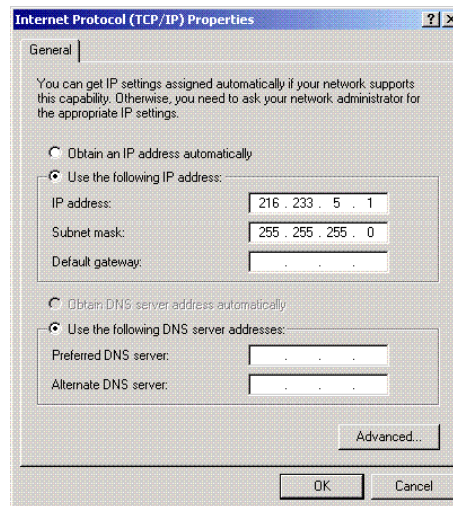
Make sure that you have installed the TCP/IP protocol. Then open the preferences of the TCP/IP. (You will find these options under the preferences of “My Network places”, “Network Environment”, ..., depending on the version of Windows you work with).

Open the TCP/IP settings with a right click here



If you need to add the TCP/IP you can install it here

After opening the TCP/IP settings, by double-clicking on the entry, you will get a dialog like this:



Check the option **Use the following IP address** and enter *216.233.5.1* (the last number can be chosen by your please. 26 is not possible because the IP of the board will be *216.233.5.26*).

If Windows doesn't fill the Subnet mask entry by itself, enter *255.255.255.0*.

The other settings are unnecessary. Close the Window.

If Windows asks you to reboot, do this first.

Now you have to install the example project. Just copy the files you find on the CD under. `.\MCB167Net\CMX` to `C:\Keil\C166\NetCMX`.

Then open up your browser. Go to the proxy settings there (; refer to browser help if you can't find them). Make that the browser is not connecting over a proxy server.

Start the Example

Now open in μ Vision2 with **Project – Open Project: \MCB167NET\CMX\KEILDemo.UV2**.



The project is setup for Monitor communication with COM2. You can change this setting in the dialog with **Project – Options for Target – Debug – Keil Monitor-166 Settings**.



The program is already translated; you can directly start the debugger. μ Vision2 will download the Monitor and the program to the **MCB167 Net** board. After that, start program execution with **Debug – Run**.

NOTE

Do not use the PING command, since the program might not work anymore after that!

Open your Browser-Window again and enter <http://216.233.5.26> in the address line.

Now the communication should start and a Java applet should appear on the Browser output that allows you to change the status of the LED's.