

USB Application: Basic, Count, Count+, Smart+

The 4-Series USB port is a USB slave intended for connection to a PC. It is not intended to connect to printers, scanners, etc. because the port is Slave, not Master.

In this demo we will connect a 4-Series Basic (BBA422) to a PC over USB and communicate bi-directional in dialog mode.

Setup the PC application.

We will demonstrate the application Hyper Terminal.

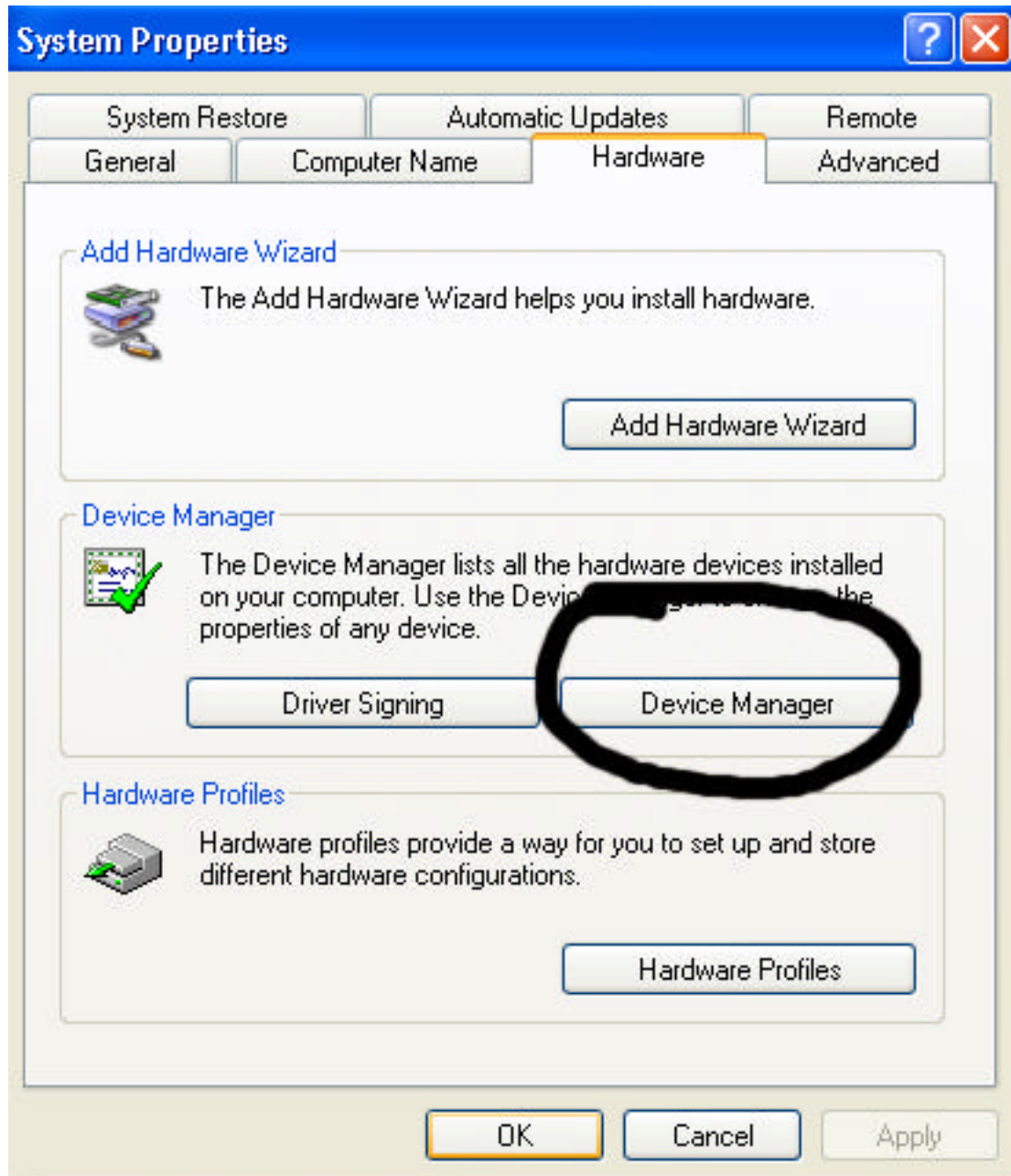
We determine the USB port assignment in our PC, here we use Windows XP.

Open Control Panel on the PC.

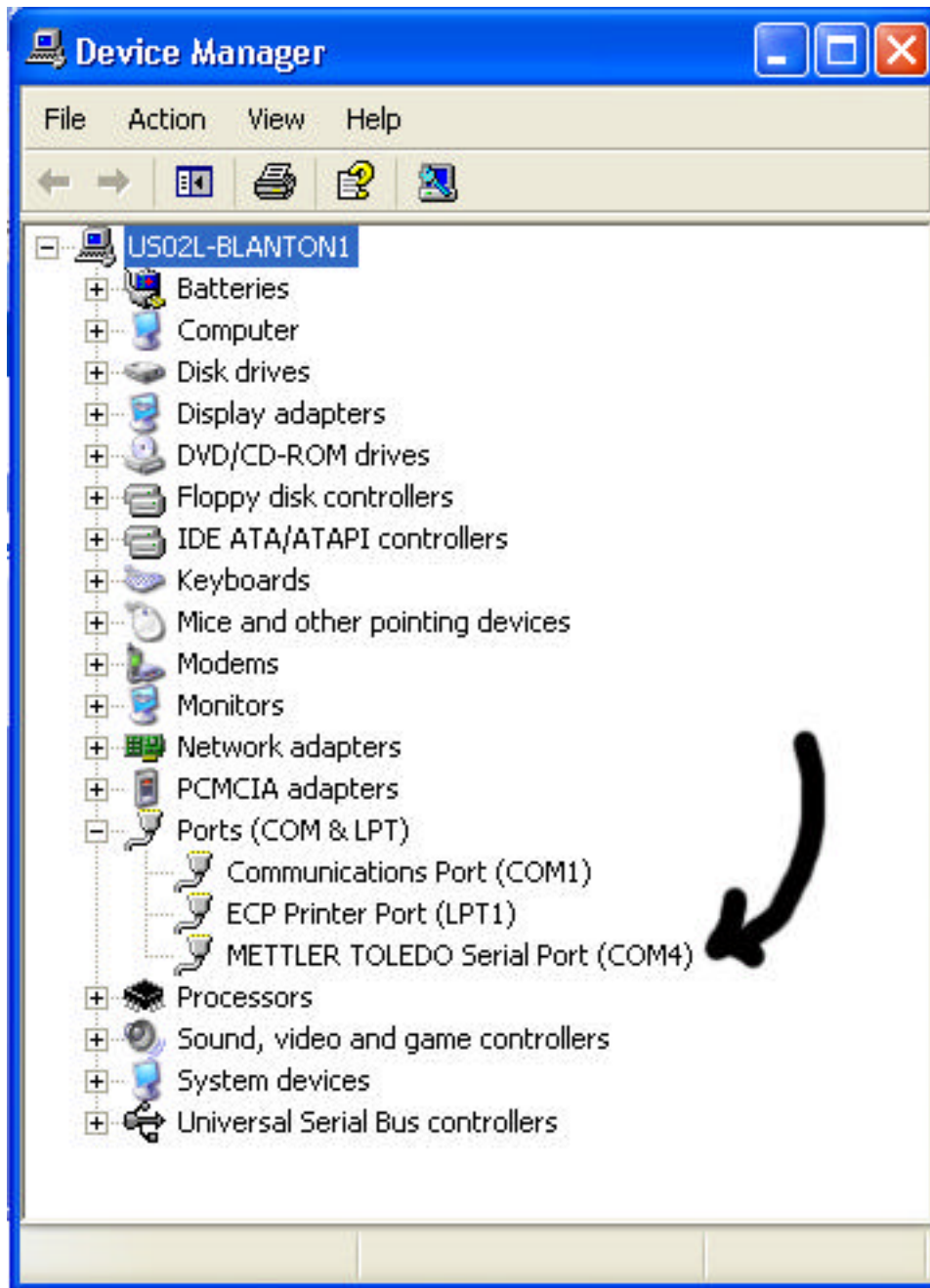
Click on “System”



On the System Properties tab, click “Device Manager”



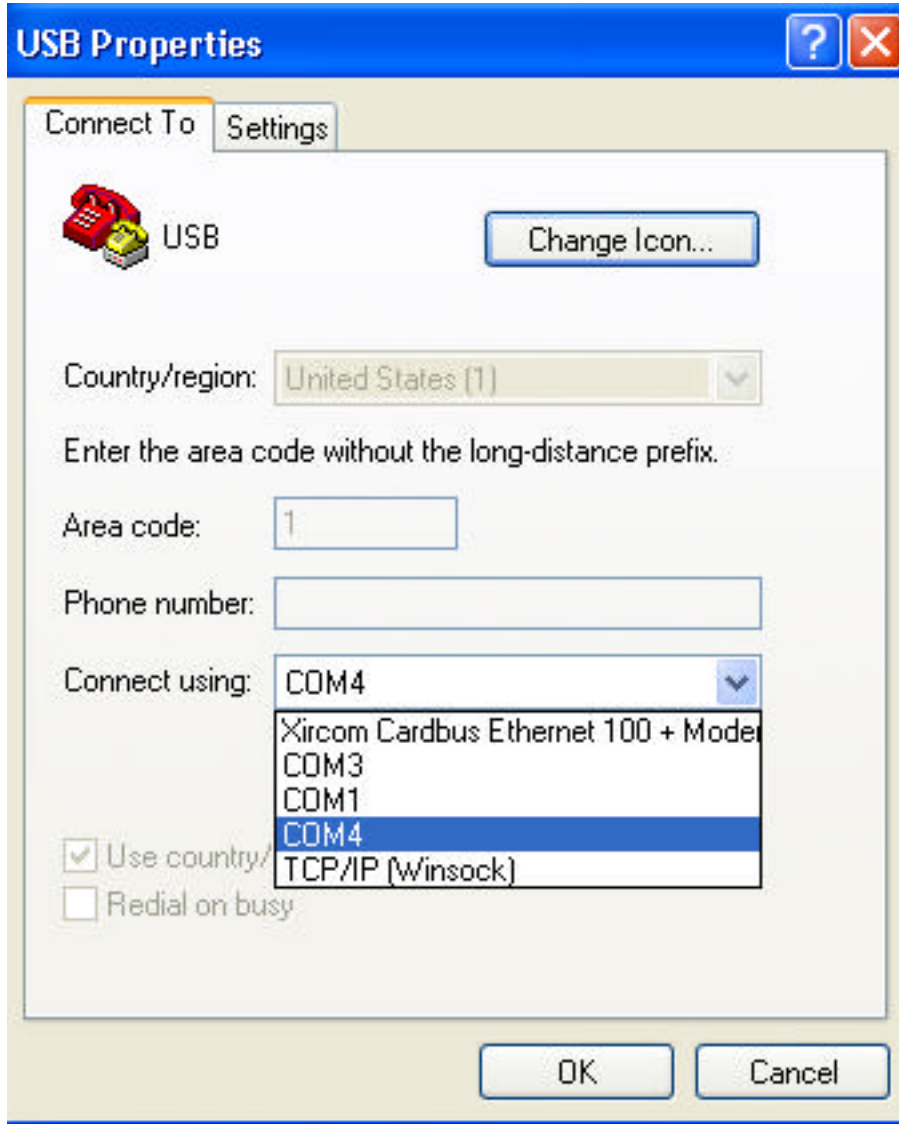
On the Device Manager screen open “Ports (Com & LPT)” to find where the USB port is configured (from the USB installation).



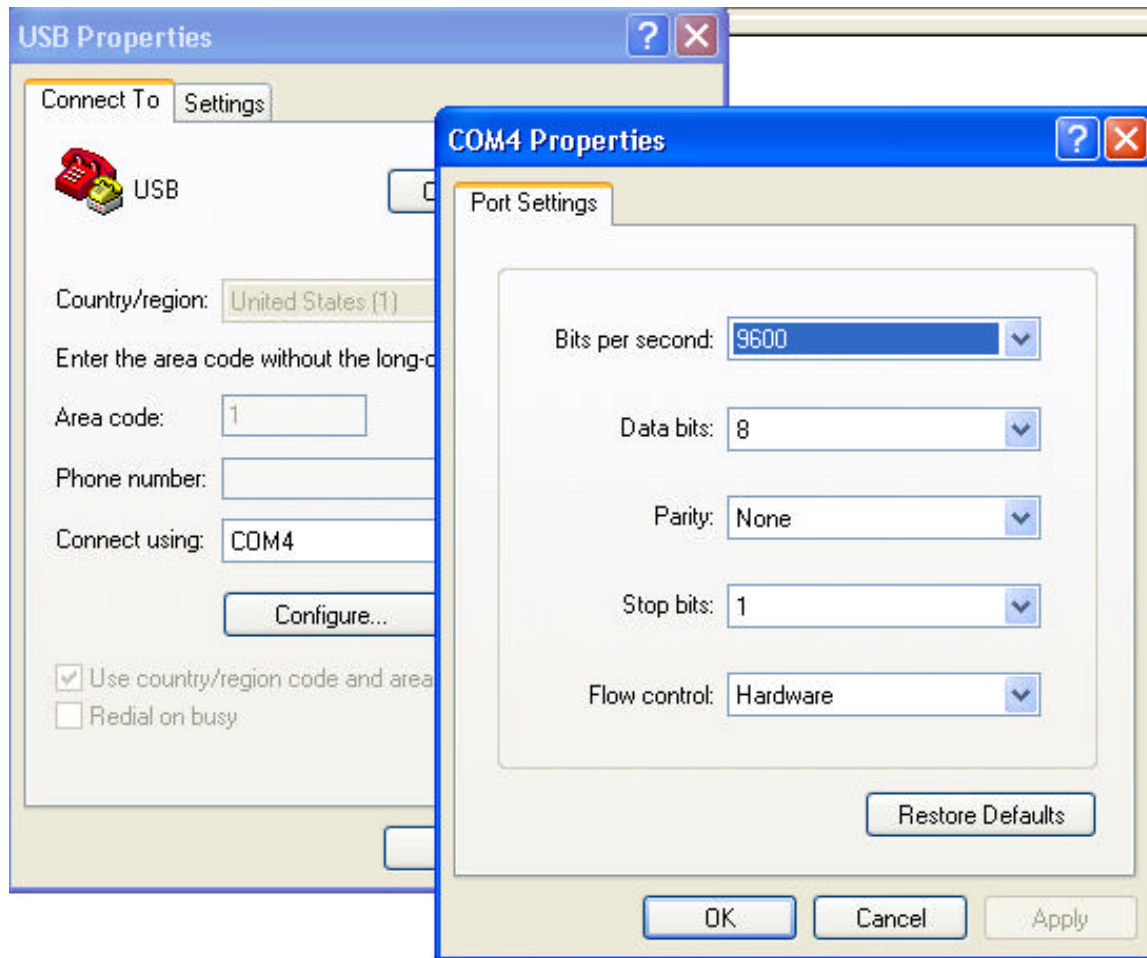
Here we find the USB (METTLER TOLEDO Serial Port) configured on COM 4 of our PC. With this information we can close all control panel windows and proceed with the Hyper Terminal application demo.

This demo is not on how to use Hyper Terminal program and a familiarity of it is assumed.

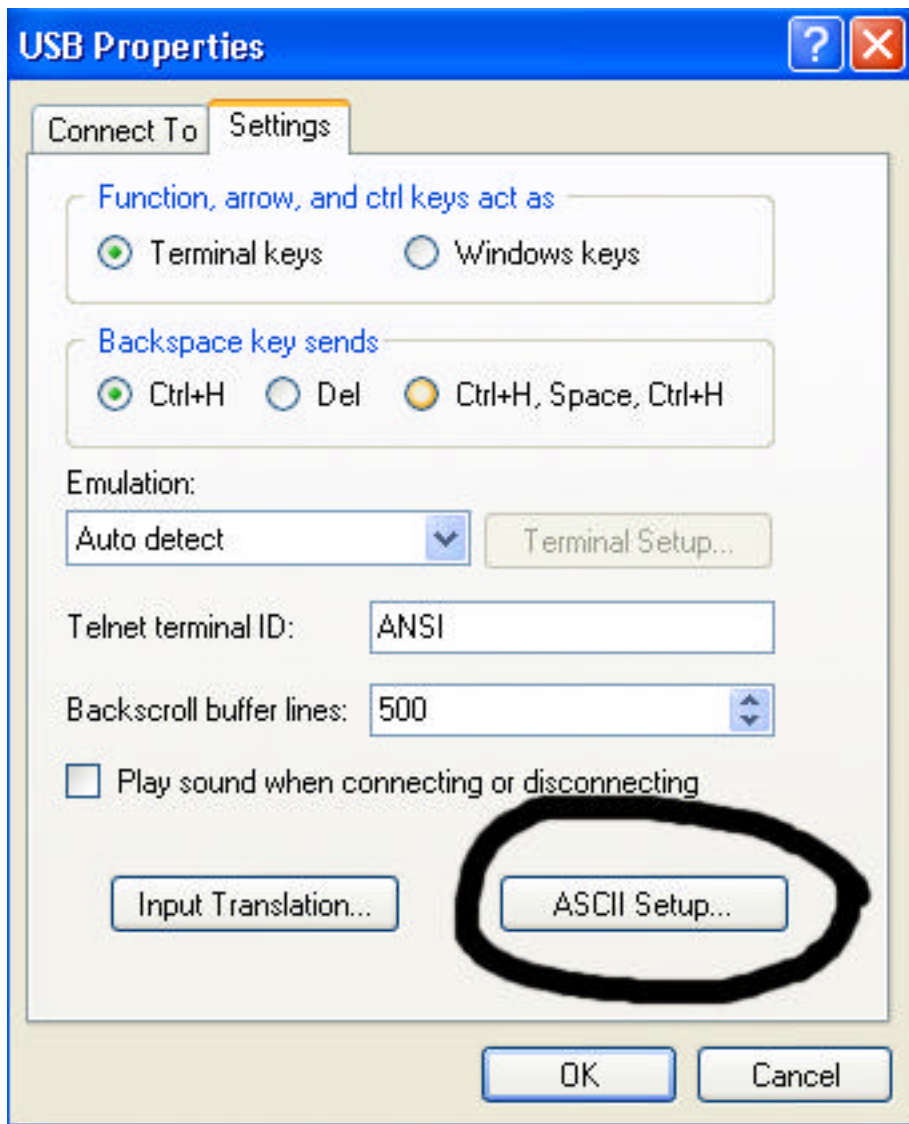
On the Hyper Term Properties Tab, select Connect to Com 4



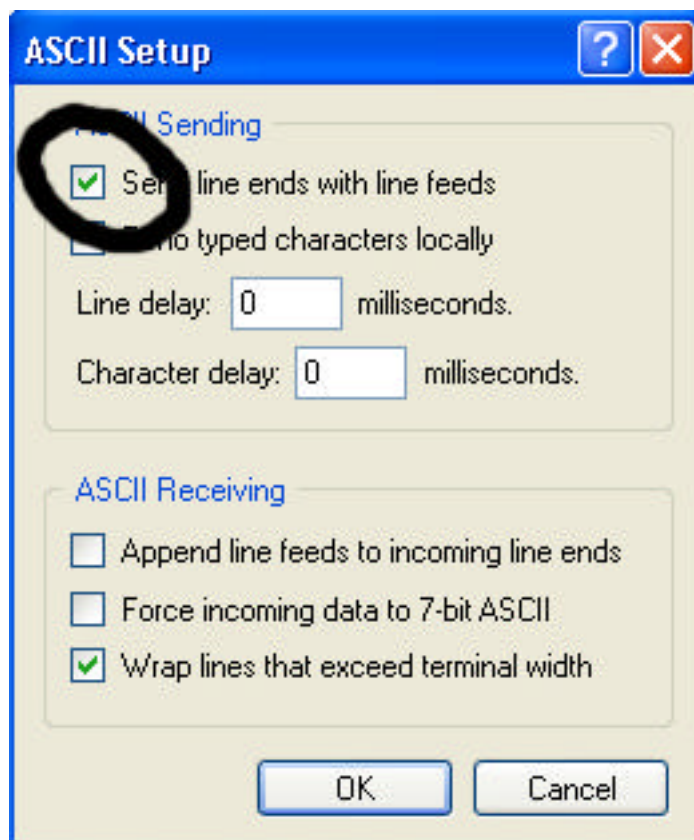
On the Hyper Terminal “Connect To” tab, click the Configure button and set parameters to 9600 Baud, 8 data bits, no parity.



Switch to the “Settings” tab and click the “ASCII Setup” button.



On the ASCII Setup page check mark the “Send line ends with line feeds”. This is required for bidirectional communication with 4-Series.



4 Series Scale Setup

In the setup of the 4-Series we will set COM 2 (because this is the USB port) to dialog mode and set the communication parameters.

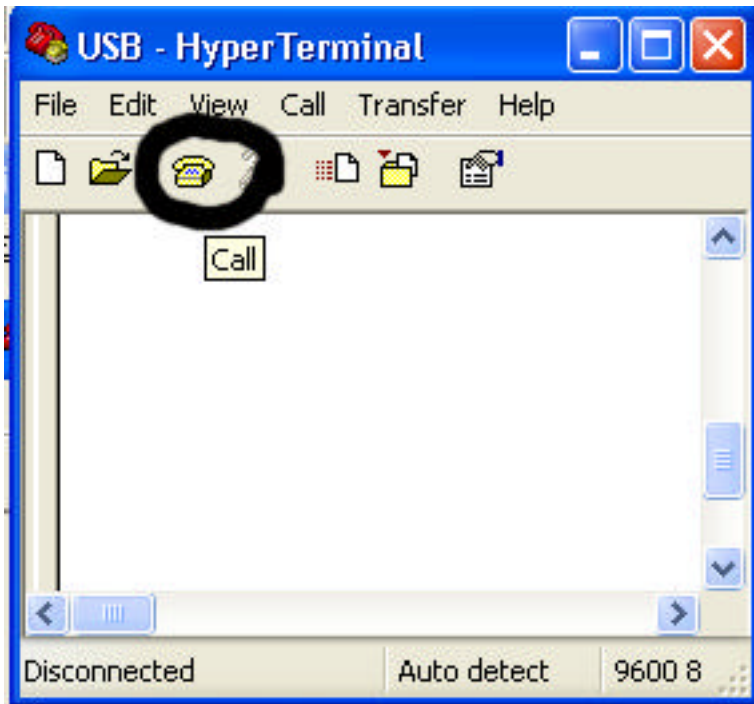
Go into setup.

- Hold down the PRINT key until “CODE” is displayed
- Key in the Supervisor Password, then PRINT key.
- The top level menu will show SCALE, rotate through the menu with the “no” key, TARE until COMMUNICATIONS (CONNUNI) is displayed.
- Touch the “yes” key, PRINT, to enter the communications menu.
- COM 1 (CON I) is displayed. Rotate to COM 2 with the TARE key.
- Touch the “yes” key, PRINT, to enter the COM 2 menu.
- The mode (NOdE) prompt is displayed, touch the “yes” key, PRINT, to enter the mode menu.
- Rotate through the mode menu with the “no”, TARE key until dialog is displayed (DIALOG), touch the “yes” key, PRINT to select dialog.

- The menu now advances to parameters (PARANet). Touch the “yes” key PRINT.
- Set baud to 9600
- Set parity (Parity) to 8 none (8 nonE)
- Set handshake (HSHAKE) to NO or XONXOFF.
- Touch the ON/OFF key to short cut setup and exit.
- At the End and SAVE prompts touch the “yes” key, PRINT.

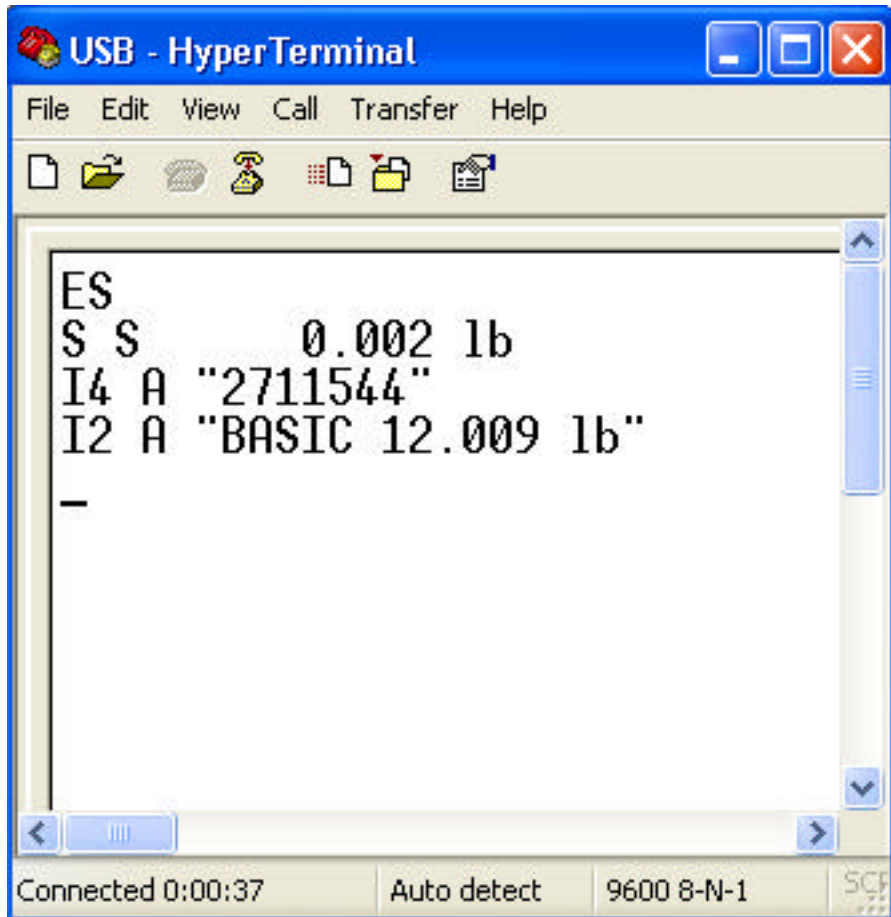
Run the demo using Hyper Terminal

Click the “Call” icon to start the session.



Now we can demonstrate communications by sending SICS commands and receiving the response from the 4-Series scale in the Hyper Terminal screen. Here are some sample SICS commands with the scale responses captured on the Hyper Terminal screen.

SI [Send weight immediate]
I4 [Serial Number]
I2 [Scale model and capacity]



End of demo.