Configuring Serial Terminal Emulation Programs

Microsemi

Table of Contents

Configuring Serial Terminal Emulation Programs: An Introduction

The serial terminal emulation program is used for the serial communication between the host computer and an embedded system (Target). It is mainly used as a user interface for debugging embedded system. It is also used for sending commands, displaying result, loading firmware, logging result, etc.

This document explains how to configure serial terminal emulation programs such as HyperTerminal, Tera Term, and PuTTY on Windows XP operating system. The HyperTerminal is a part of the Windows XP operating system but it is no longer a part of the Windows Vista or Windows 7 operating systems. The open source and free serial terminal programs like Tera Term and PuTTY can also be used as a replacement for HyperTerminal in Windows Vista and Windows 7 operating systems.

The Tera Term can be downloaded using the following link:
http://hp.vector.co.jp/authors/VA002416/teraterm.html

The PuTTY can be downloaded using the following link:
www.chiark.greenend.org.uk/~sgtatham/putty/download.html

HyperTerminal

Configuring HyperTerminal

1. Click the Windows **Start** menu. Select **All Programs** > **Accessories** > **Communications** and click the **HyperTerminal Program** (Figure 1). This opens HyperTerminal.

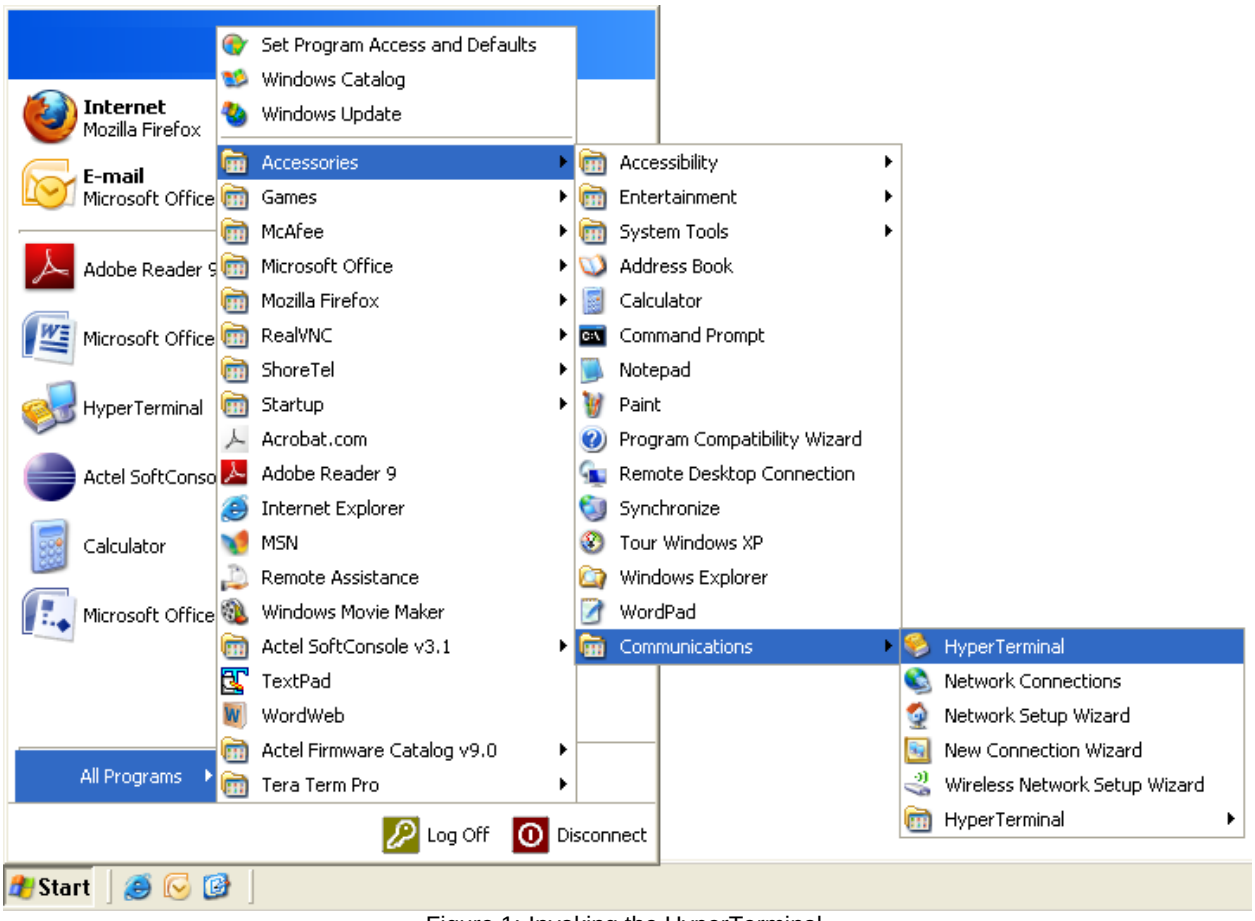

Figure 1: Invoking the HyperTerminal

2. The Connection Description window is displayed (Figure 2). Enter a name and choose an icon for the connection. For example, type Serial Console as the name of the new HyperTerminal session and click **OK**.

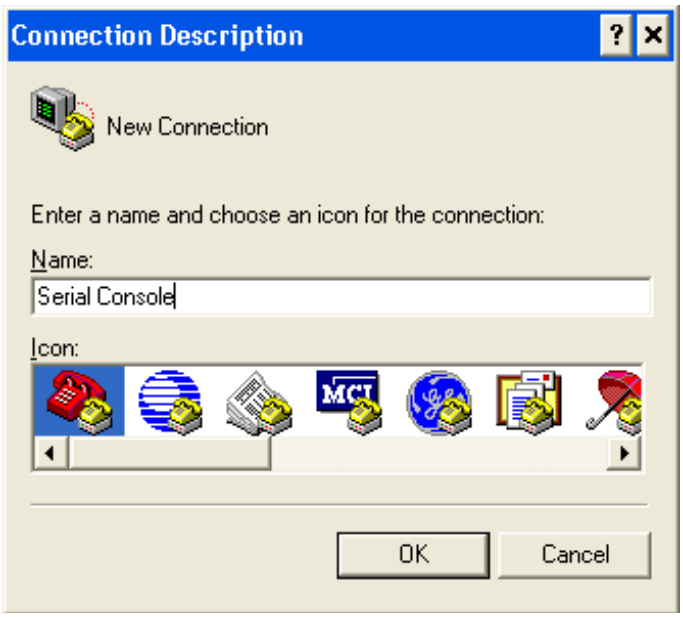

Figure 2: HyperTerminal Connection Description

3. Connect To window is displayed. Select a COM port from the drop-down list. For example, COM3 (Figure 3).

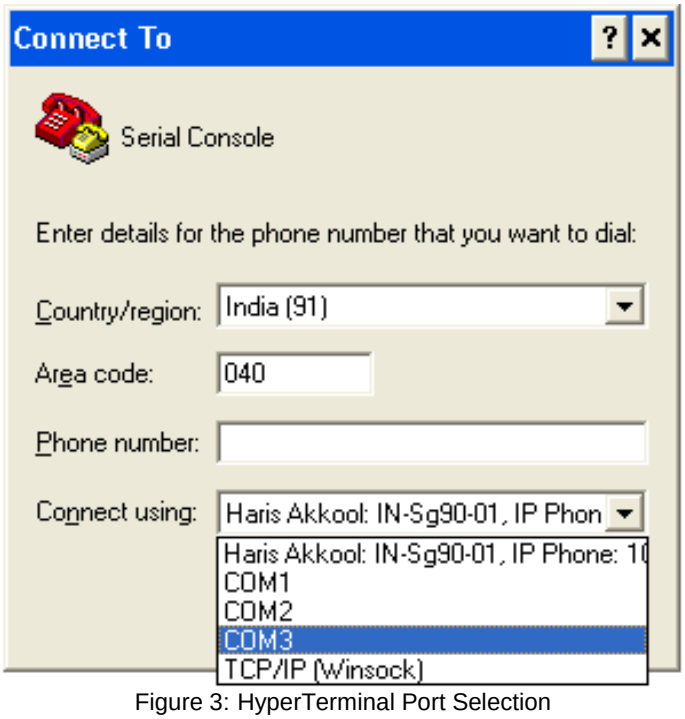

Figure 3: HyperTerminal Port Selection

4. The COM3 Properties window is displayed. Select the following settings (Figure 4):
   - Bits per second: 57600
   - Data bits: 8
   - Parity: None
   - Stop bits: 1
   - Flow Control: None

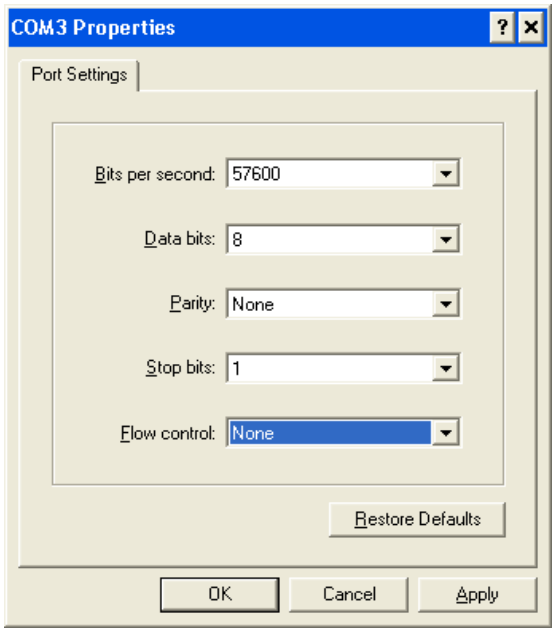

Figure 4: HyperTerminal Port Settings

5. Select **File** > **Properties** in the HyperTerminal window. Choose the Settings tab (Figure 5).

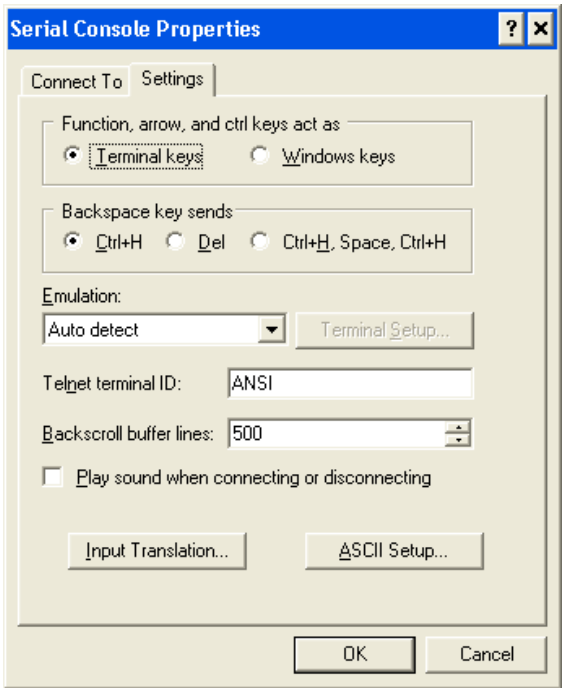

Figure 5: HyperTerminal Properties

6. Click the **ASCII Setup** button. Select the check box labeled '**Send line ends with line feeds**' and '**Echo typed characters locally**' (Figure 6).

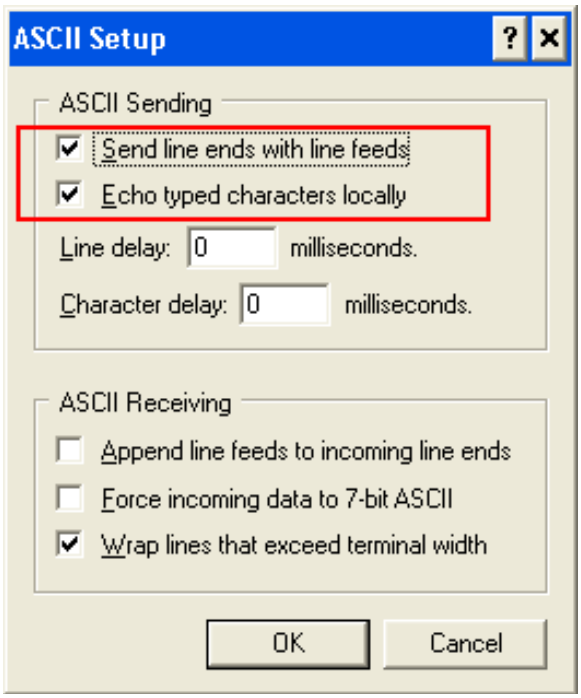

Figure 6: ASCII Character Settings

7. Save the settings for later use. Select **File** > **Save** as Session files.

Tera Term Pro

Configuring Tera Term Pro

1. After installing Tera Term Pro, click the Windows **Start** menu. Select **All Programs** > **Tera Term Pro** and click the **Tera Term Pro** program (Figure 7). This displays the Tera Term Pro screen.

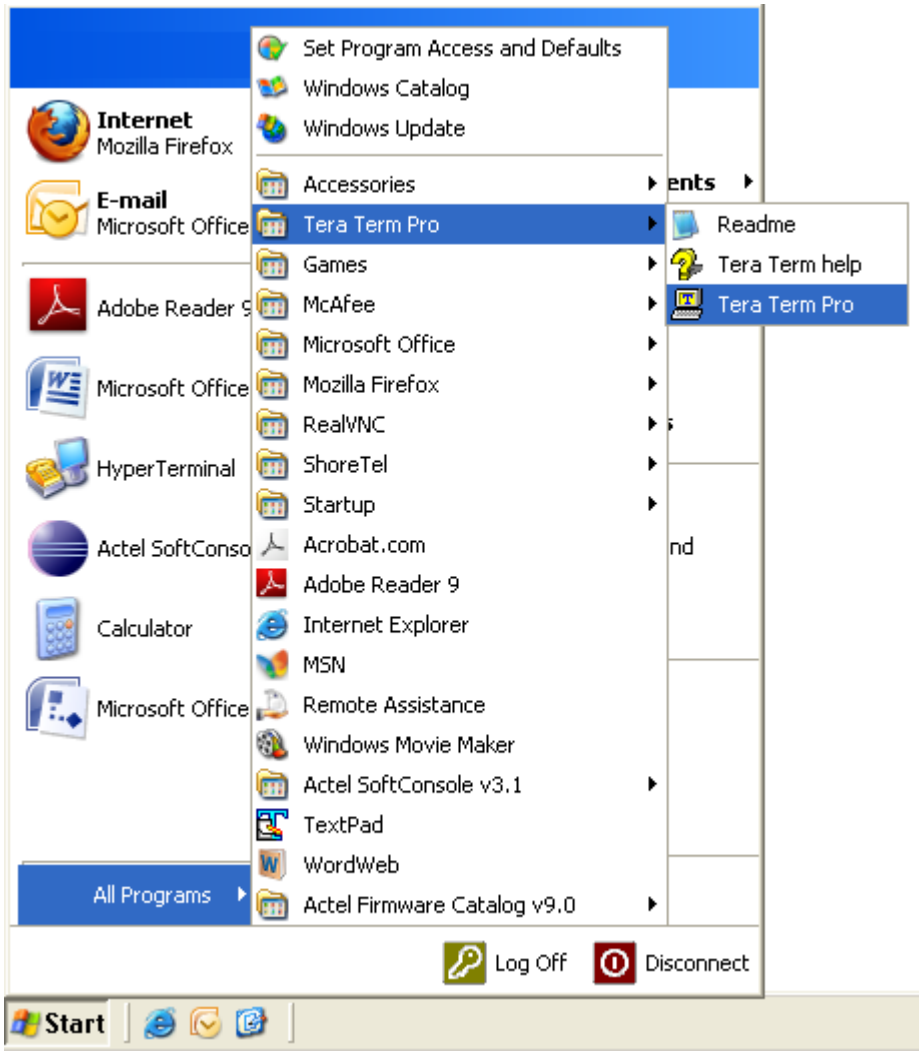

Figure 7: Invoking Tera Term Pro

2. The Tera Term: New connection window is displayed (Figure 8). Select Serial radio button.

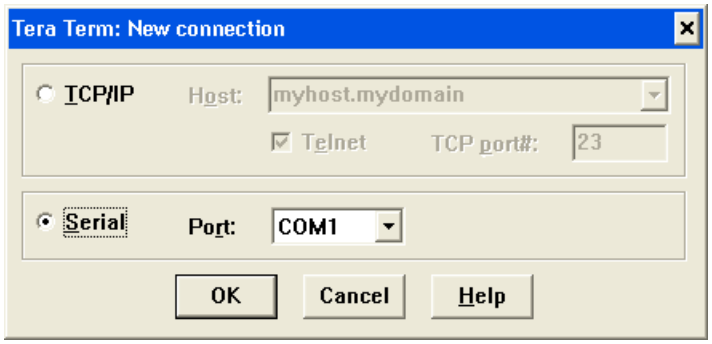

Figure 8: Tera Term New Connection Window

3. Select a COM port from the drop-down list and click OK. For example, COM3 (Figure 9).

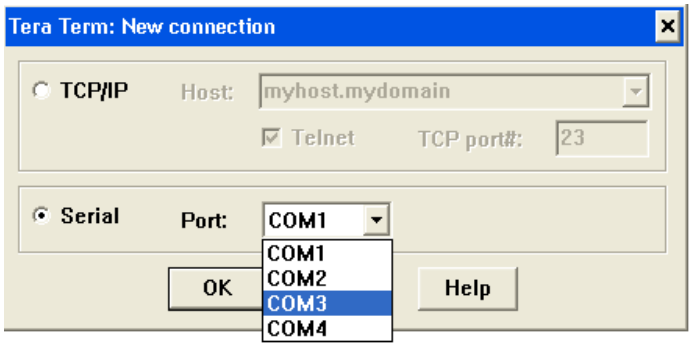

Figure 9: Tera Term Port Selection

4. Select **Setup** > **Serial** port in the Tera Term window. The COM3 Serial port setup window is displayed. Select the following settings (Figure 10):
   - Baud rate: 57600
   - Data: 8 bit
   - Parity: None
   - Stop: 1 bit
   - Flow Control: None

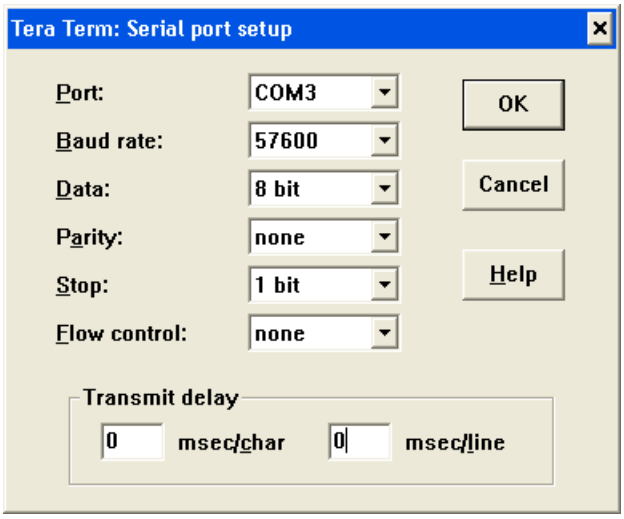

Figure 10: Tera Term Serial Port Setup

5. Select **Setup** > **Terminal** in the Tera Term window. The Terminal setup window is displayed (Figure 11).

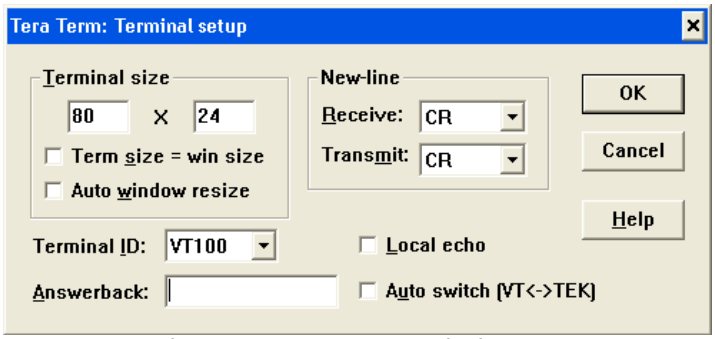

Figure 11: Tera Term Terminal Setup

6. Select the check box labeled Local echo and select CR+LF from Transmit drop-down list under New-Line menu (Figure 12).

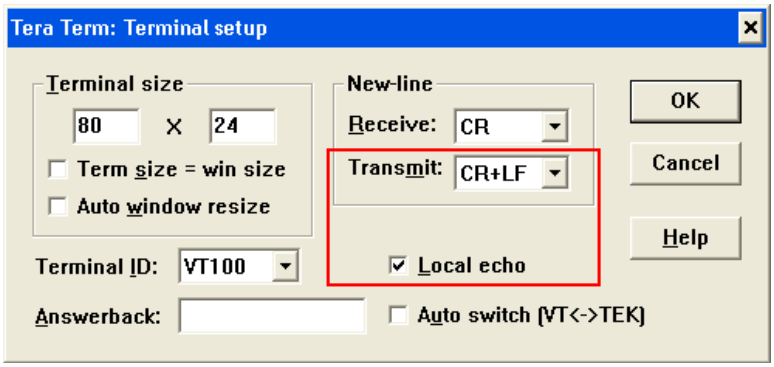

Figure 12: Tera Term Terminal Setup

7. Save the settings for later use. Select **Setup** > **Save** setup.

PuTTY

Configuring PuTTY

1. Click the putty.exe. This opens PuTTY Configuration window (Figure 13).

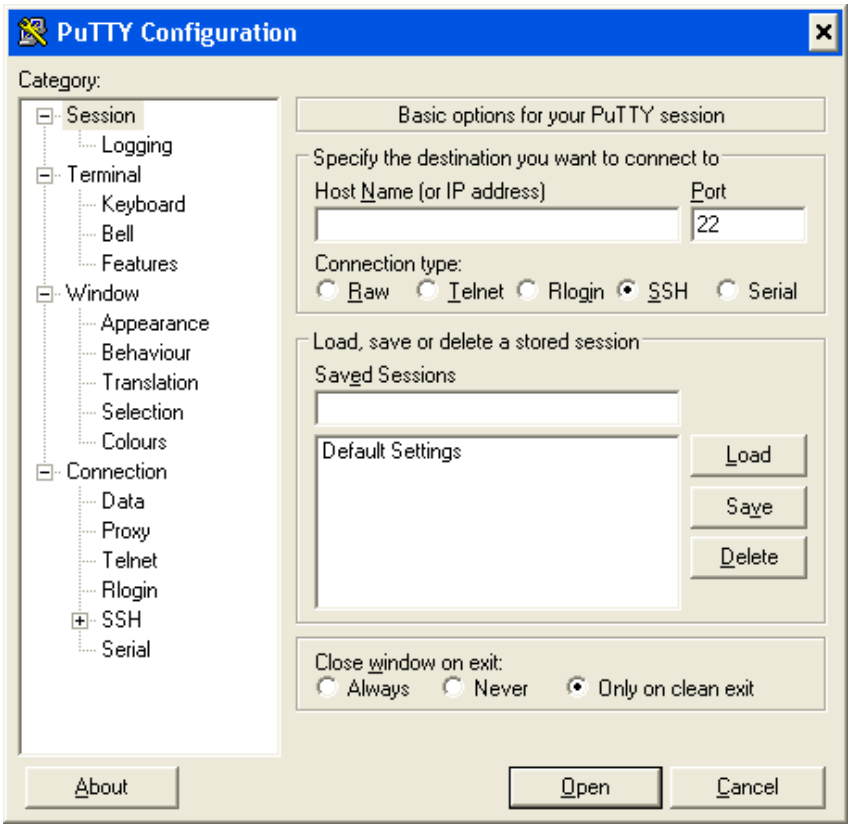

Figure 13: PuTTY Configuration Window

2. Select Category > **Connection** > **Serial** in the PuTTY Configuration window. The Serial Line configuration window is displayed. Select the following settings (Figure 14):
   - Speed (baud): 57600
   - Data bits: 8
   - Stop bits: 1
   - Parity: None
   - Flow Control: None

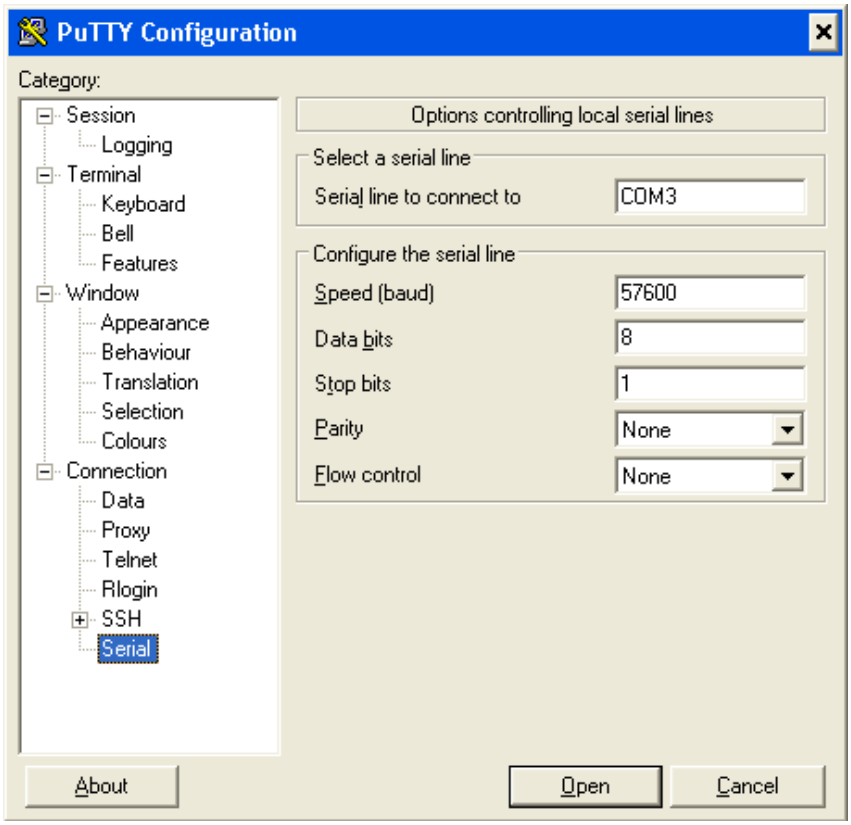

Figure 14: Serial Line Configuration

3. Select **Category** > **Terminal** in the PuTTY Configuration window. The terminal emulation configuration window is displayed. Select **Force on** radio button under Local echo menu and Select the check box labeled **Implicit CR in every LF** under Set various terminal options menu (Figure 15).

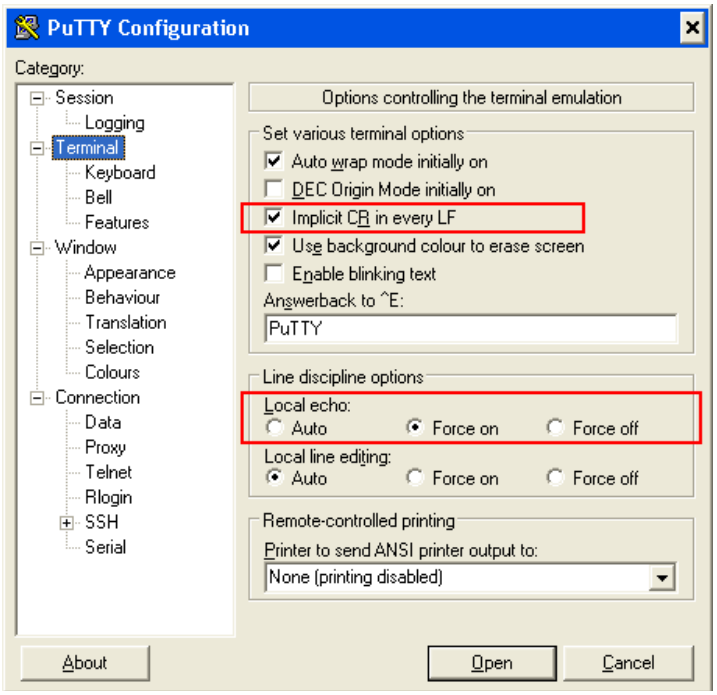

Figure 15: Terminal Configuration

4. Select **Category** > **Session** in the PuTTY Configuration window. The basic options for PuTTY session appear. Select **Serial** radio button under Connection type menu (Figure 16) and click **Open**.

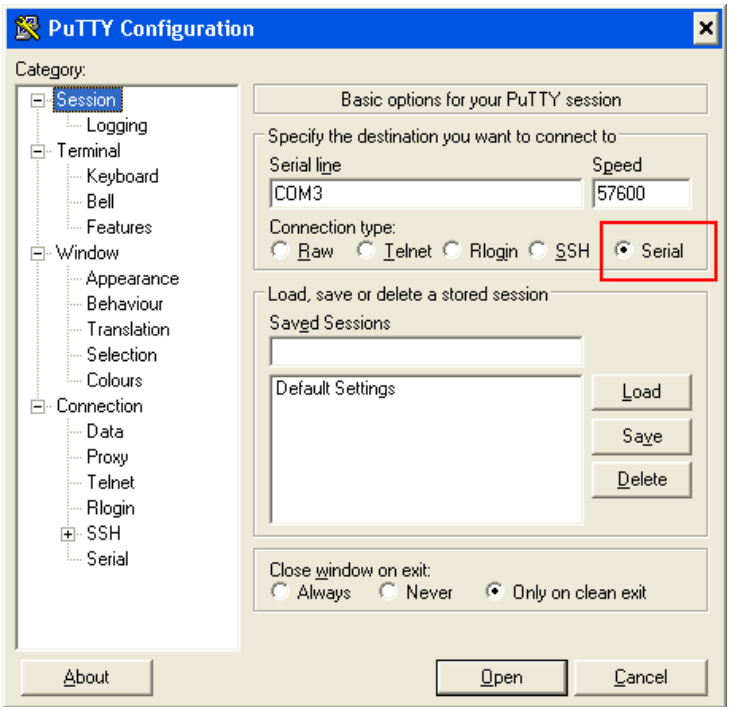

Figure 16: Basic Options For a Session

5. Save the session for later use. Right-click the PuTTY title bar and click **Change Settings** (Figure 17).

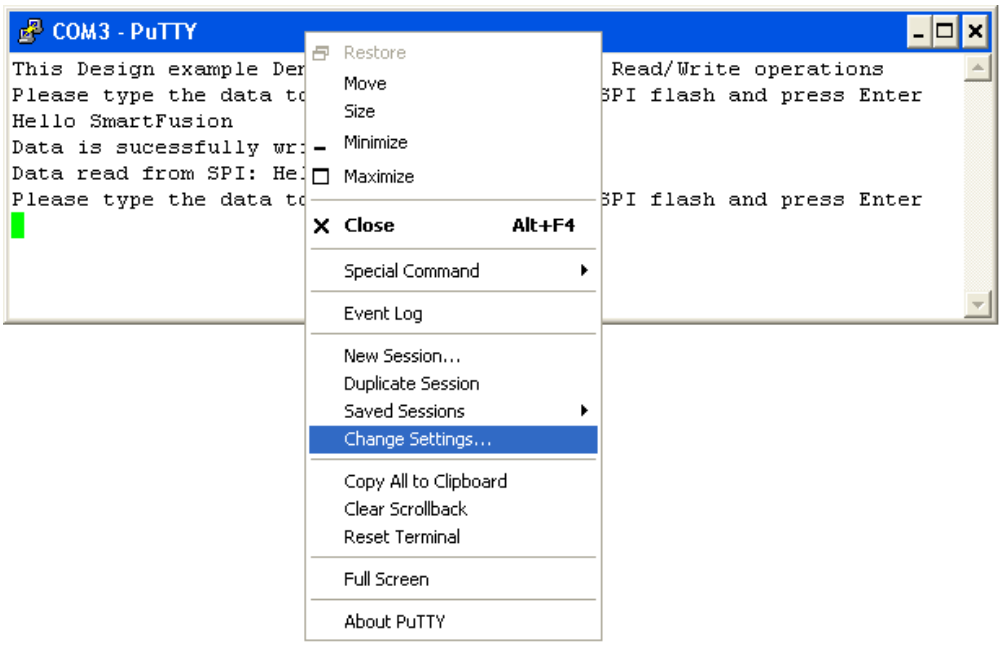

Figure 17: PuTTY Current Session Settings

Note: *Press Ctrl+J instead of Enter.*

Microsemi Corporate Headquarters
One Enterprise, Aliso Viejo CA 92656 USA
Within the USA: +1 (949) 380-6100
Sales: +1 (949) 380-6136
Fax: +1 (949) 215-4996

Microsemi Corporation (NASDAQ: MSCC) offers a comprehensive portfolio of semiconductor solutions for: aerospace, defense and security; enterprise and communications; and industrial and alternative energy markets. Products include high-performance, high-reliability analog and RF devices, mixed signal and RF integrated circuits, customizable SoCs, FPGAs, and complete subsystems. Microsemi is headquartered in Aliso Viejo, Calif. Learn more at **www.microsemi.com**.

50200272-0/7.10