Symbol USB Com Port Emulation – How To:

The Symbol Simple Com Port Emulation Driver can be obtained from the developer zone (you will need a login – if you do not have one you will need to register for the developer's zone with Symbol):
http://devzone.symbol.com/content.cfm?item_id=E3C15363-1029-4A23-877BA8EBE9C5A8DA

Simple COM Port Emulation USB driver version 1.8.5

Simple COM Port Emulation is one of the USB (Universal Serial Bus) interface modes supported by Symbol scanner devices. In this mode, a Symbol scanner device connected to a PC via USB cable behaves as if the device is connected via a COM port. This driver creates a virtual COM port in the PC corresponding to the device attached through USB.

Supported platforms:
This driver works on Intel 32-bit processor based machines with Windows 98, Windows 2000 or Windows XP.

Click here to download
Filename: Symbol COM Port Emulation Driver v 1.8.5.zip
Format: compressed (.zip); File size: 537 KB
Release date: October 2005

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SYSTEM REQUIREMENTS
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1. The software included with this distribution package is designed to operate with Symbol Synapse scanners.

2. One of the following operating systems must be fully installed and running on the system before installing this software:

   Windows 98SE, Windows 2000, or Windows XP

3. It is recommended that the software be installed on systems with at least 32MB of system memory when using Windows* 98SE and Windows* Me. Windows* 2000 and Windows* XP require at least 64MB of system memory.

4. It is recommended that there be a minimum of 5MB of hard disk space on the system in order to install this software.

5. Check the System Requirements. The operating system must be fully installed with latest OS updates applied and running on the system before using this software.

6. Close any running applications. Otherwise, you may experience difficulties.

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Installation of the Driver and Testing the Scanner for serial data transmission:

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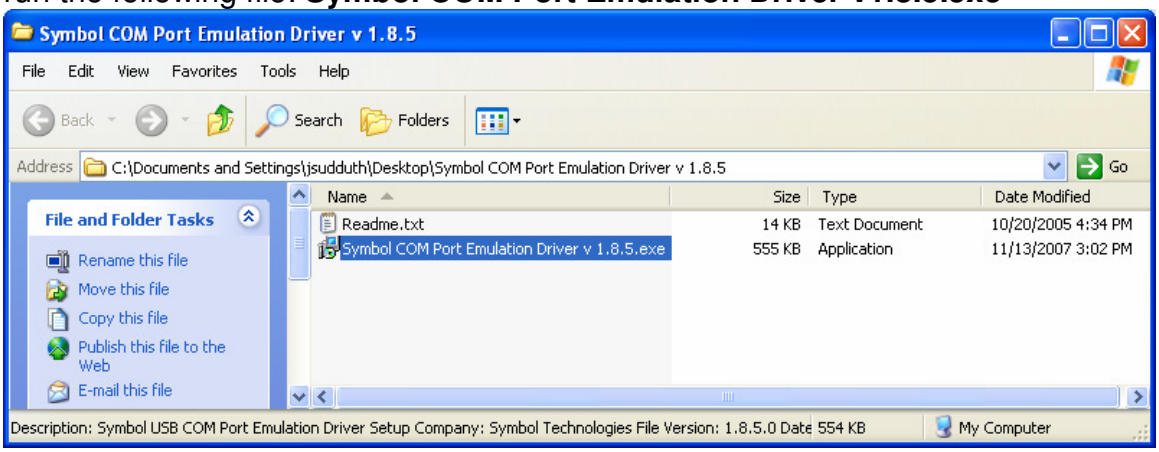
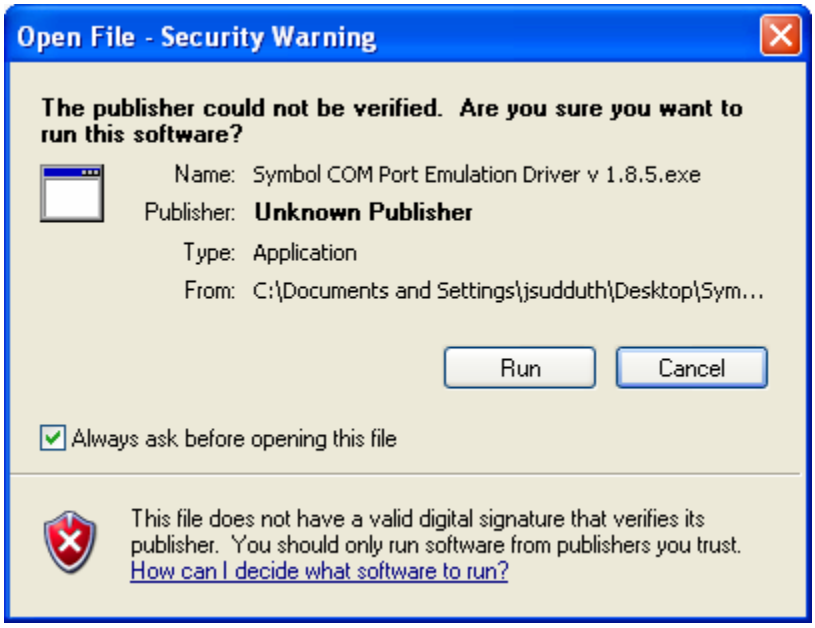
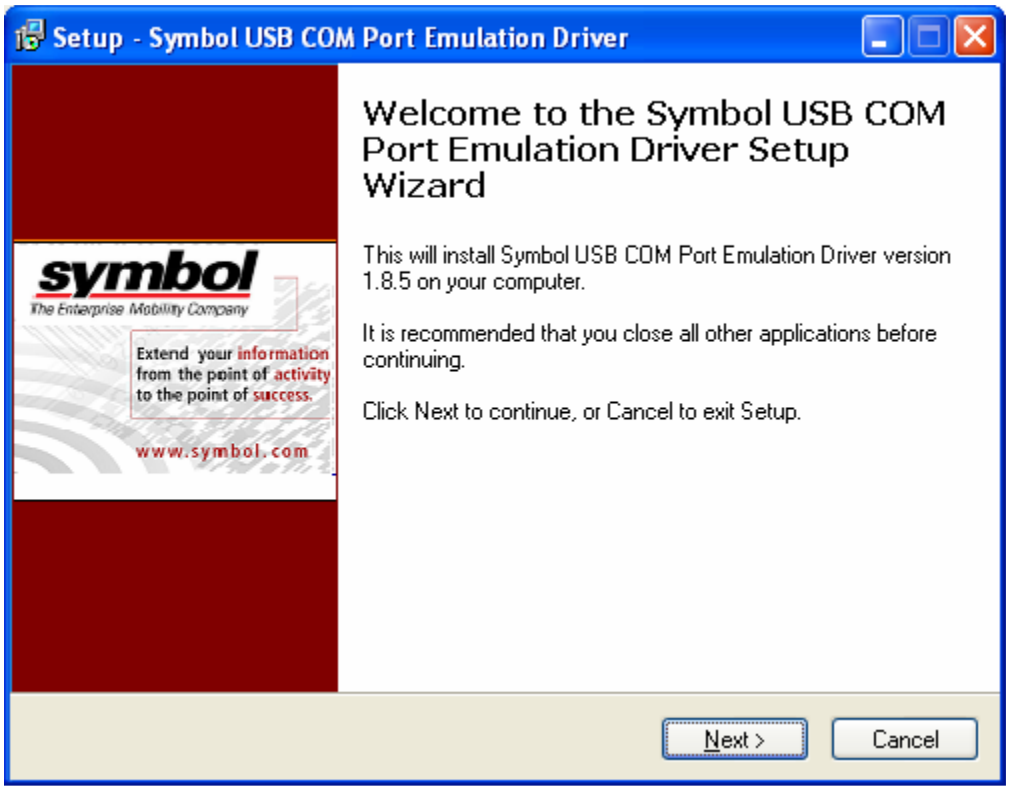
Download the driver for the link shown on the prior page. Extract the zip file and run the following file: **Symbol COM Port Emulation Driver v1.8.5.exe**



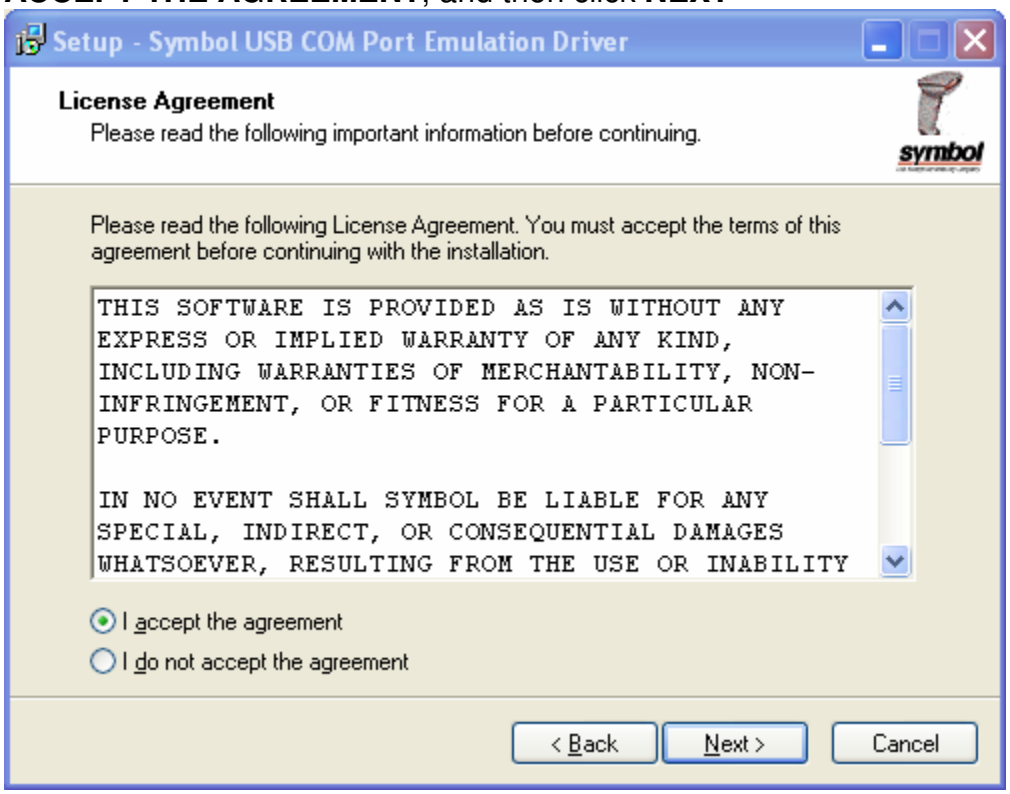
Click **RUN**



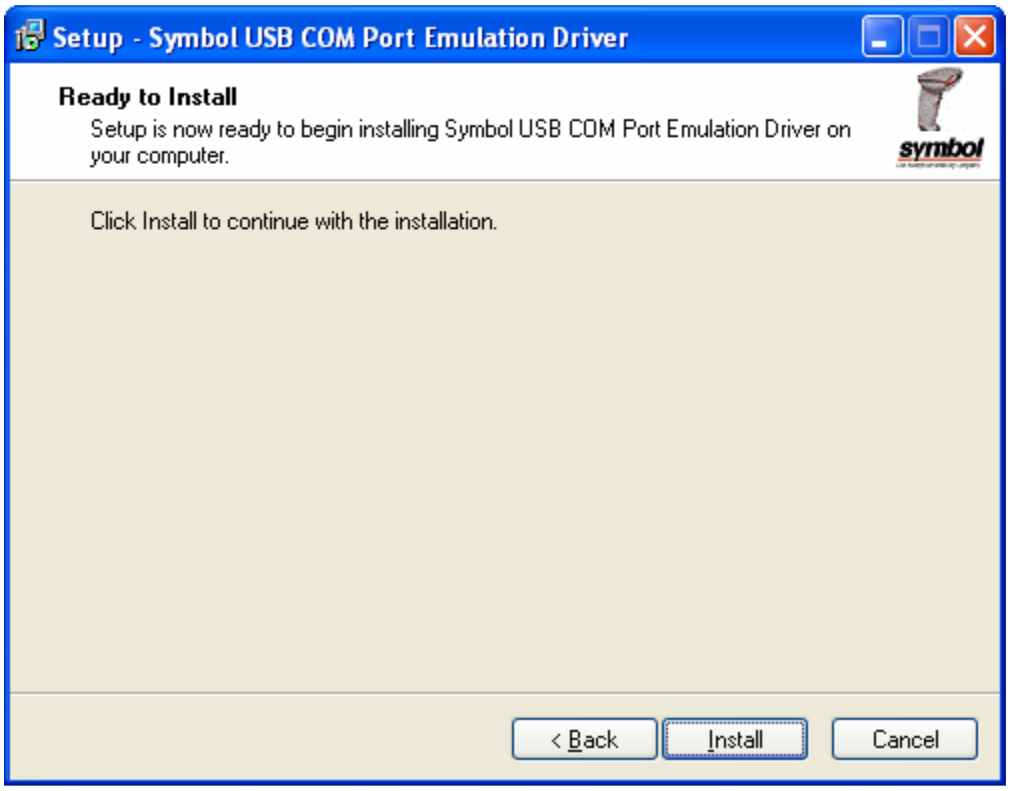
Click **NEXT**



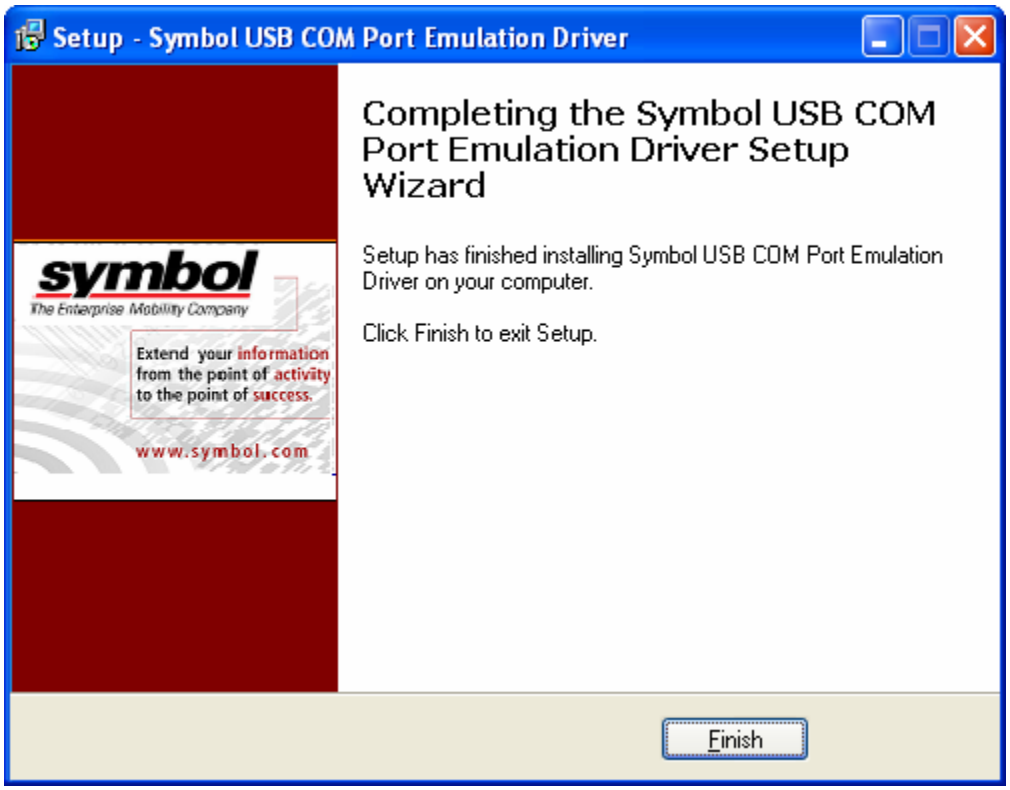
Click **I ACCEPT THE AGREEMENT**, and then click **NEXT**



Click INSTALL



Click FINISH

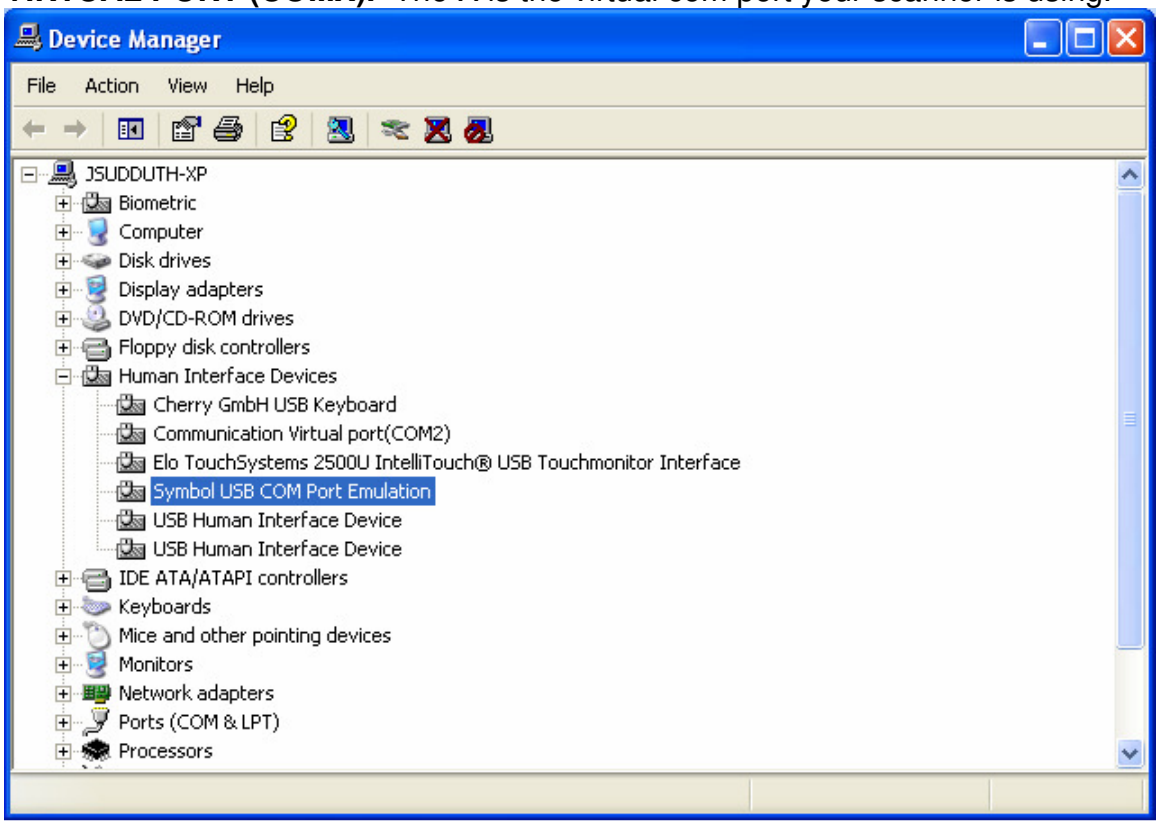


Plug in the USB scanner – SCAN **Symbol Com port Emulation**

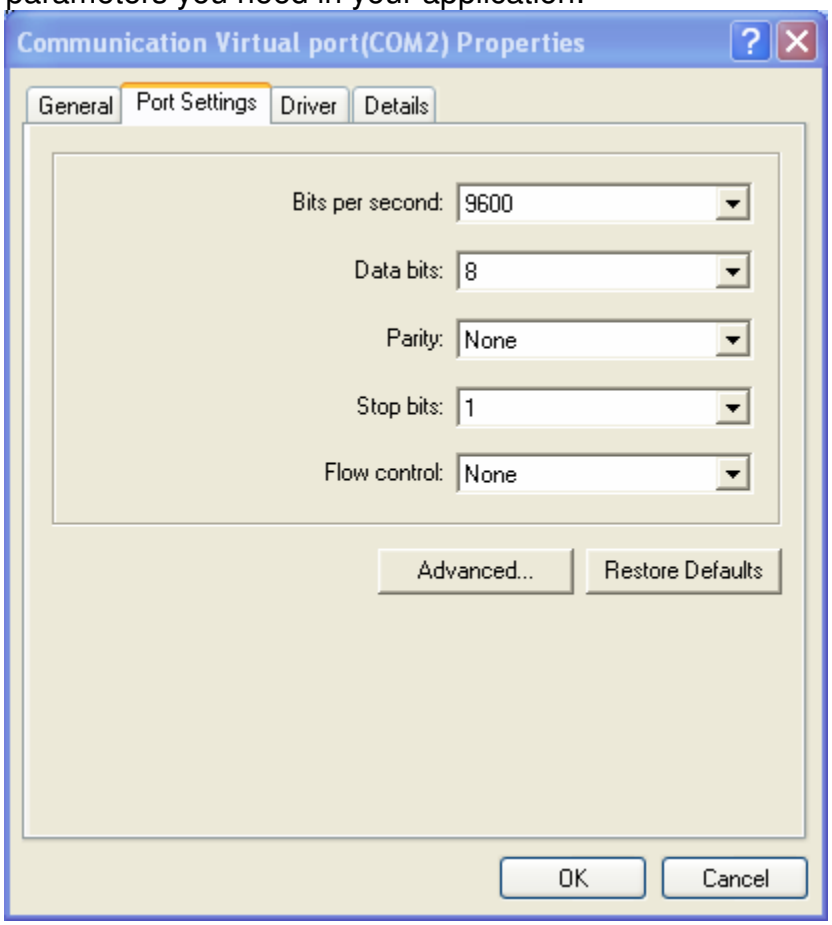
Simple COM Port Emulation

You may see a message indicating a new HID device has been found and setup by your PC at the bottom right hand of the screen.

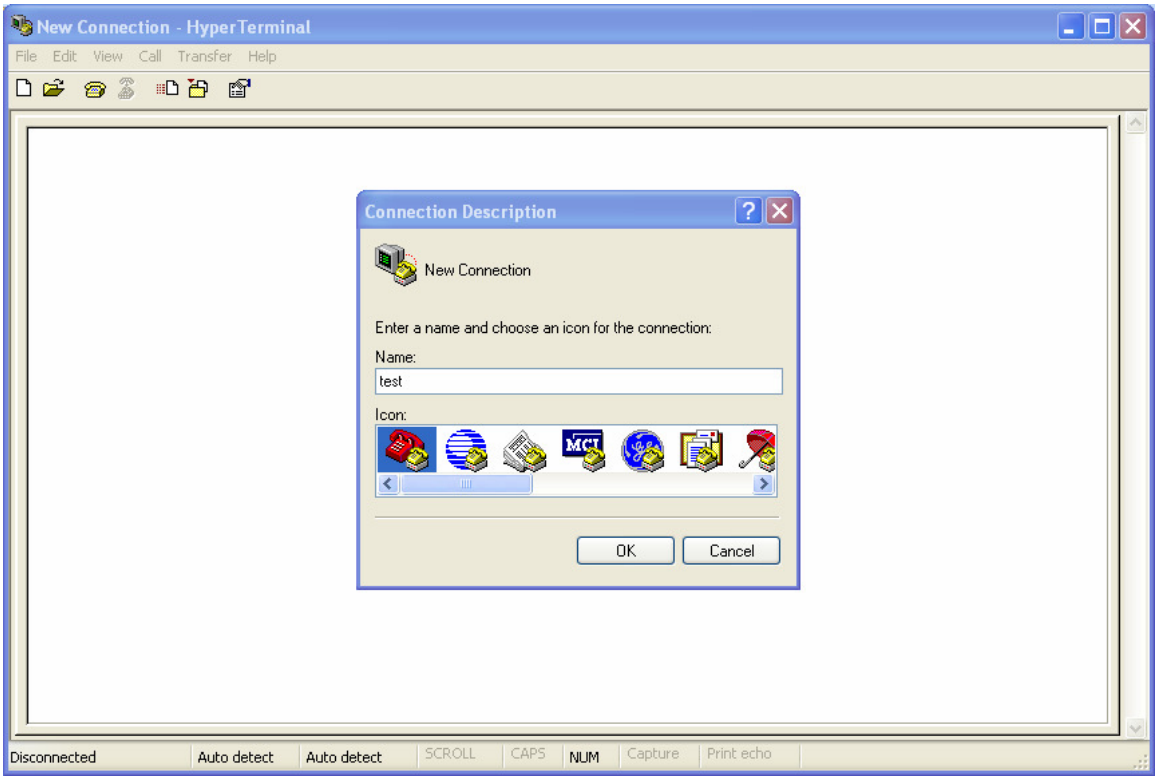
Click START → SETTINGS → CONTROL PANEL
Double Click SYSTEM, Click the HARDWARE TAB, and Click DEVICE MANGER
Under **HUMAN INTERFACE DEVICES** you should see **COMMUNICATIONS VIRTUAL PORT (COMX).** The X is the virtual com port your scanner is using.



Right click and click on **PROPERTIES** and click the **PORT SETTINGS** tab to set up the parameters you need in your application:

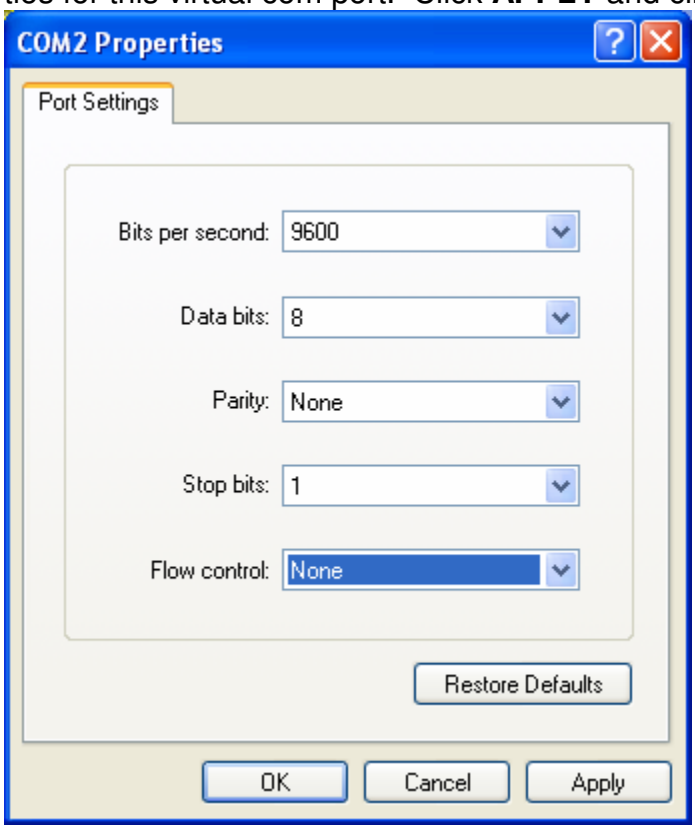


To ensure your scanner is working as a serial device now – please start HyperTerminal. Click **START → PROGRAMS → ACCESSORIES → COMMUNICATIONS → HYPERTERMINAL.** Name your HyperTerminal session and click **OK**

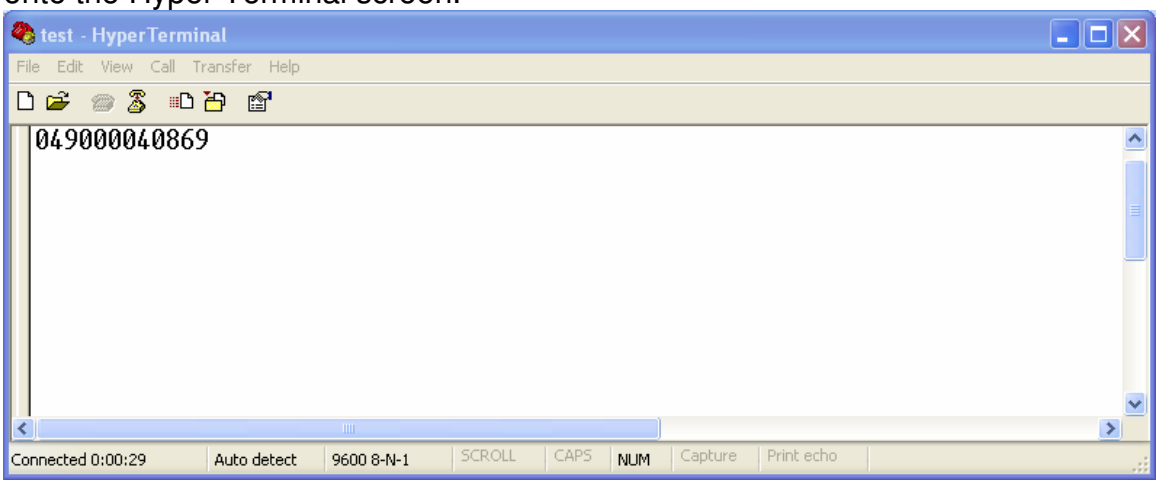


Select the com port you are working on (it is COM2 in our test but may be different on your PC – please refer to the com that you saw in the device manager). Click **OK**.

Set your COM properties to match those you set up in Device Manager Properties for this virtual com port. Click **APPLY** and click **OK**.



Scan a barcode to ensure the scanner is transmitting – this barcode will output onto the Hyper Terminal screen.



Close HyperTerminal.

Your scanner is now setup to use USB Com Port Emulation in your application.

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KNOWN ISSUES AND LIMITATIONS

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1. Virtual COM port device will be read-only.
2. Serial baud rates, RS232 handshake lines, modem status and control register settings are not supported.
3. Inter-character delay and FIFO controls as in UART are NOT support.
4. Driver does not support changing read buffer size.
5. Windows 98 driver does not support changing of assigned COM port index.
   This is supported only in Win2k/XP (accessible from 'Device Manager', expand Human Interface Device, Right click 'Communication Virtual Port' and select Properties. 'Communication Port' Properties page will be displayed. Here select 'Port settings' tab, click 'Advanced', Select the new COM port number desired from the 'COM Port Number' drop down list).

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TROUBLESHOOTING

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It is assumed that the system requirements in Section 2 above have been satisfied.

Issue 1: Virtual COM port doesn't come up after installation.

Solution: The driver to enumerate virtual com port will be loaded only if the scanner is in 'Simple COM port emulation mode'. This problem can occur if the installation was done with the scanner set to other modes such as HID Keyboard mode or Symbol Native USB mode. Switch the scanner to Simple COM port emulation mode by scanning bar code for 'Simple COM port emulation' device. Refer 'Synapse Smart Cable for USB Quick Reference Guide' for the bar code. Repeat the installation for COM port emulation driver after switching the device to 'Simple COM port emulation mode'.

Issue 2: Device Manager shows scanner as Hid-Compliant device and not Symbol USB COM Port Emulation

Solution: This means installation for Symbol COM port emulation driver was not complete. Refer solution for Issue 1.

Issue 3: Windows 98 doesn't enumerate the scanner with new driver after installation of COM emulation driver. The device was plugged in before installation and was using default Hid compliant driver supplied with windows. Restart option after installation was cancelled.

Solution: If the device is plugged in before installing Symbol COM port emulation driver in Windows 98, windows Plug-n-Play will detect the device and prompt for a driver. If default options are given, Windows will install Hid compliant driver that come with the OS. After this, if an attempt is made to install Symbol COM emulation driver, and restart option at the end of installation is cancelled, the device won't be properly installed. Always select option to restart system for the installation to succeed.