GadgetPC
Single Board Computer

USB Linux console

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BiPOM Electronics, Inc.

1. Overview

Thank you for your purchase of the GadgetPC Single Board Computer.
GadgetPC is a powerful computer board that is capable of running high-level operating systems such as Linux.
This document is for users who want to use USB device port of GadgetPC as Linux console.
GadgetPC board will appear in Windows system as a virtual COM port.

2. Setup.

Please run Linux on your GadgetPC.
More information can be obtained from **GadgetPC Quick Start Guide**.
http://www.bipom.com/documents/boards/gadgetpc/GadgetPC Quick Start Guide.pdf

3. Virtual Serial Port

GadgetPC Linux Control Panel release provides a precompiled Linux kernel with /dev/ttyGS0 device.
This device provides a virtual serial port over USB interface.
You can check if the device is present in the system typing the following command
[root@GadgetPC /]$ls -l /dev | grep GS
crw------- 1 root root 252, 0 Jan 1 00:35 ttyGS0
[root@GadgetPC /]$

Linux console is running on the virtual serial port due to a special record in the **inittab** file.
[root@GadgetPC /]$cat /etc/inittab
::sysinit:/etc/rc.d/rc.s
::respawn:-/bin/ash
::askfirst:-/bin/ash
ttyGS0::respawn:/sbin/getty -L ttyGS0 115200 vt100
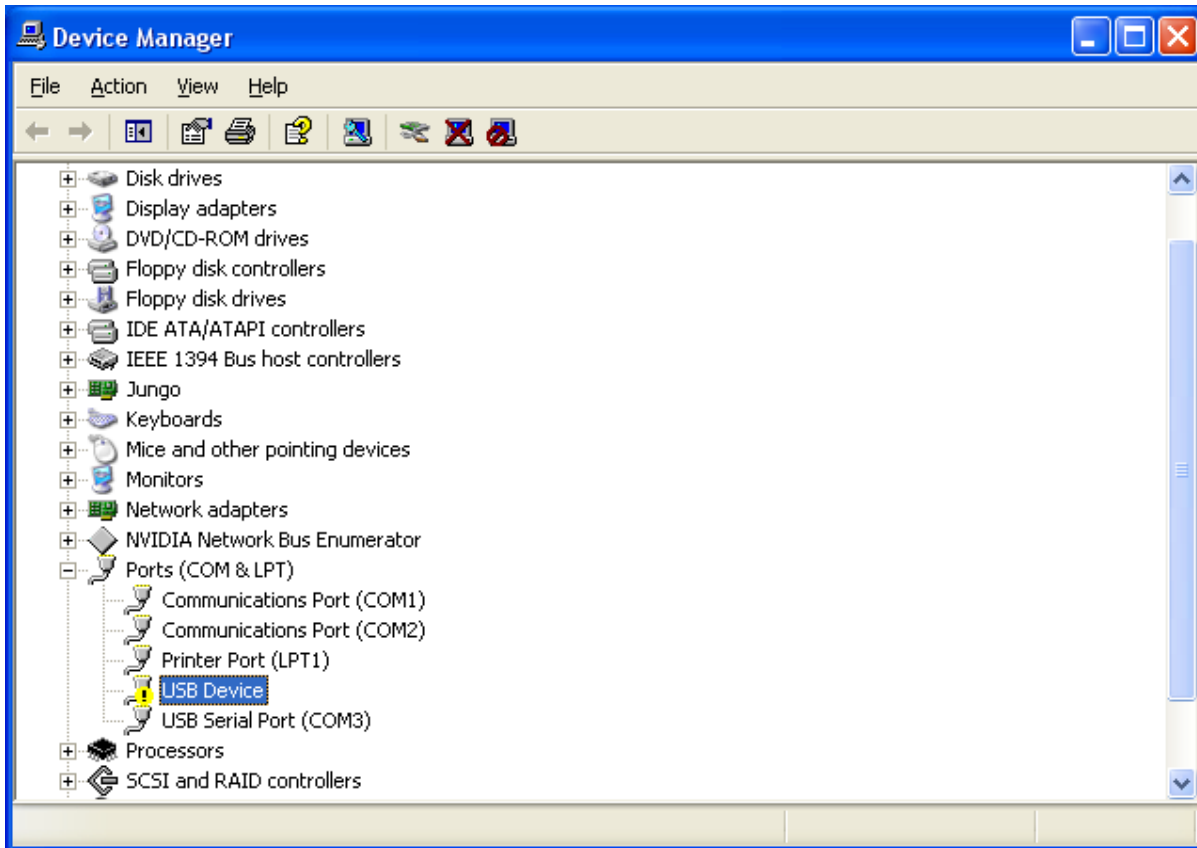**::ctrlaltdel:/bin/umount -a -r**
[root@GadgetPC /]$

4. Windows driver.

As the 1ˢᵗ step please check if **usbser.sys** file is present under C**:\WINDOWS\system32\drivers**
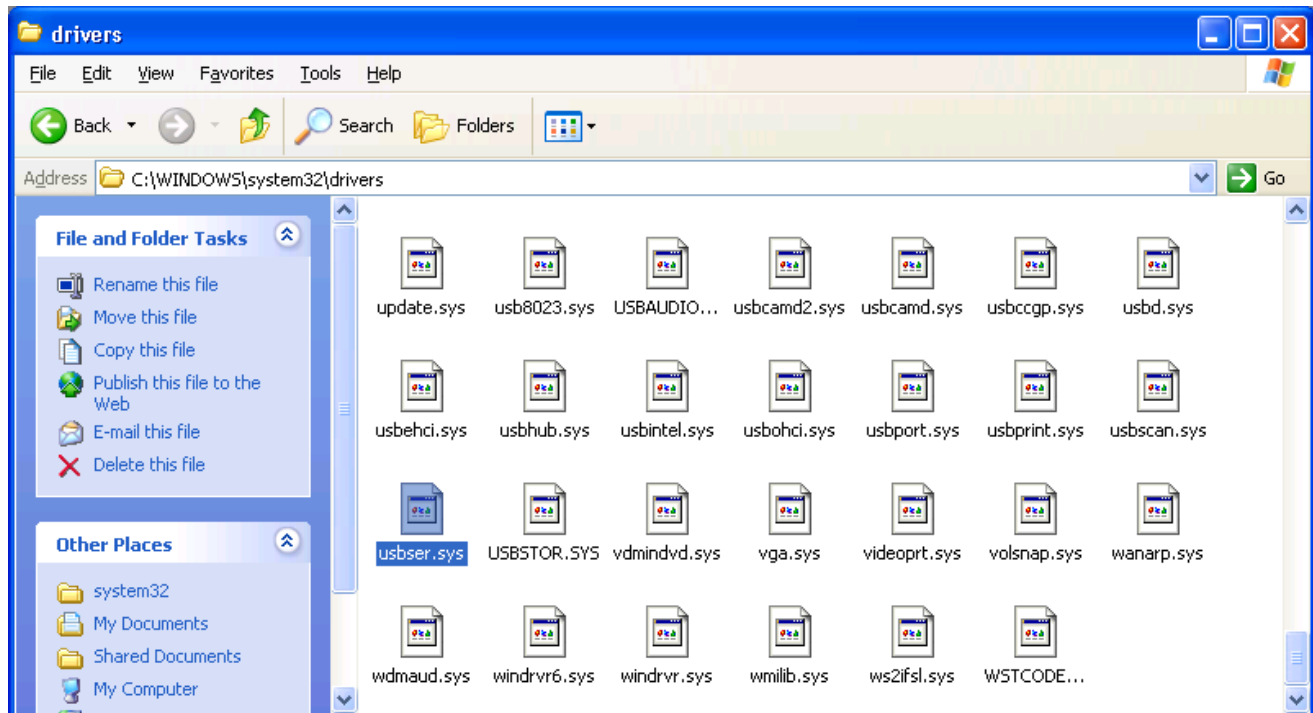
Copy the **usbser.sys** file from **C:\bipom\devtools\GadgetPC\win_drivers\usb_serial** if it is absent.
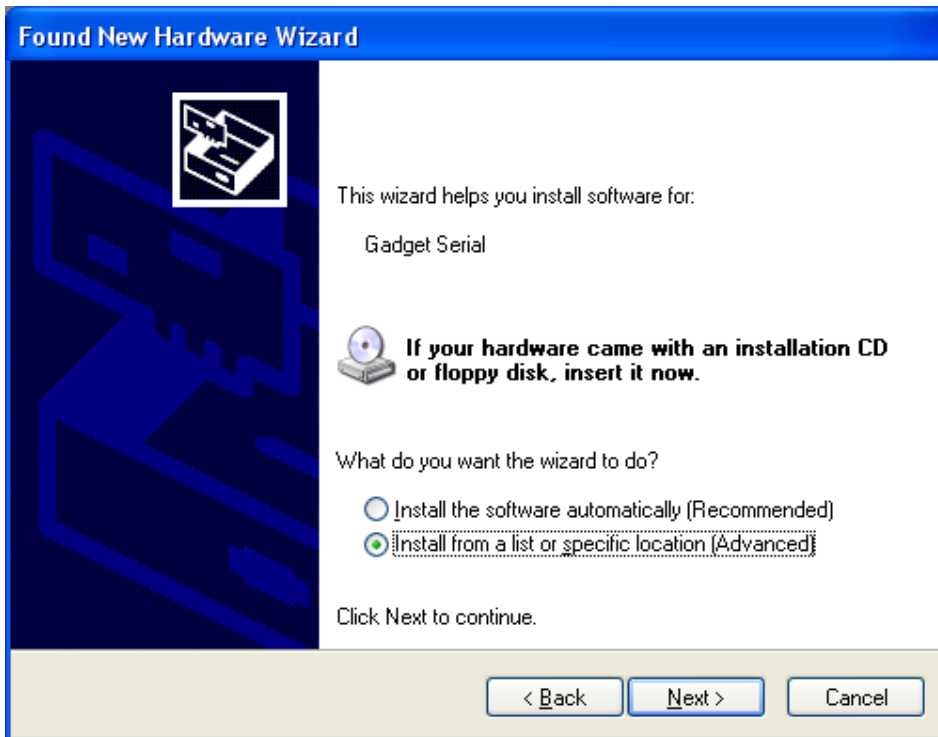
When GadgetPC is powered from a PC USB host port it will be recognized as UNKNOWN USB device.
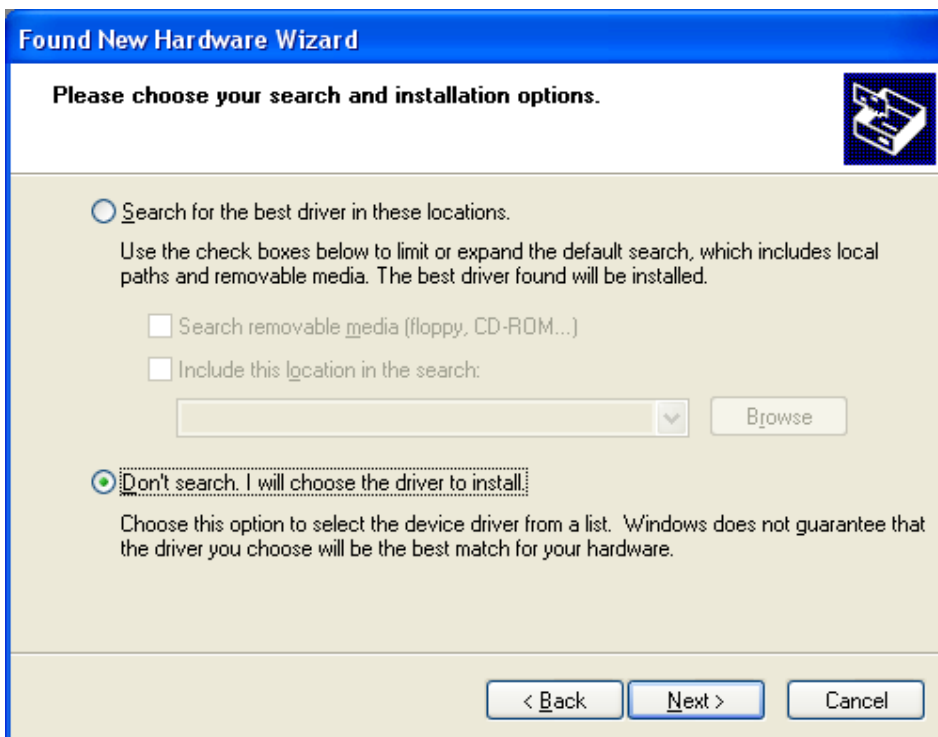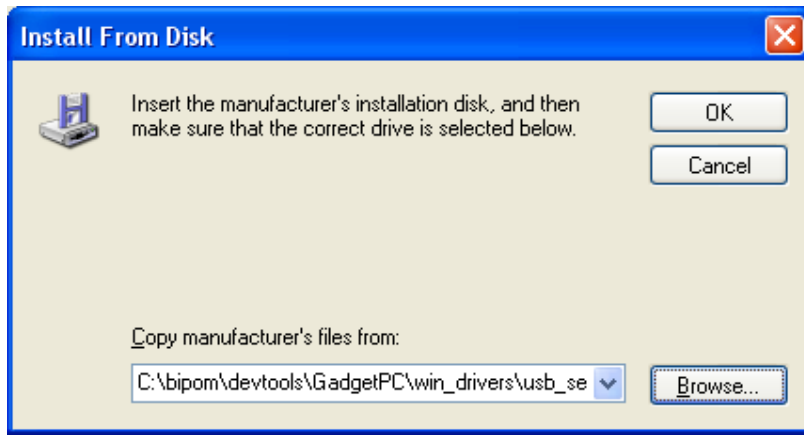

Install the driver.

Press Next

Press Next

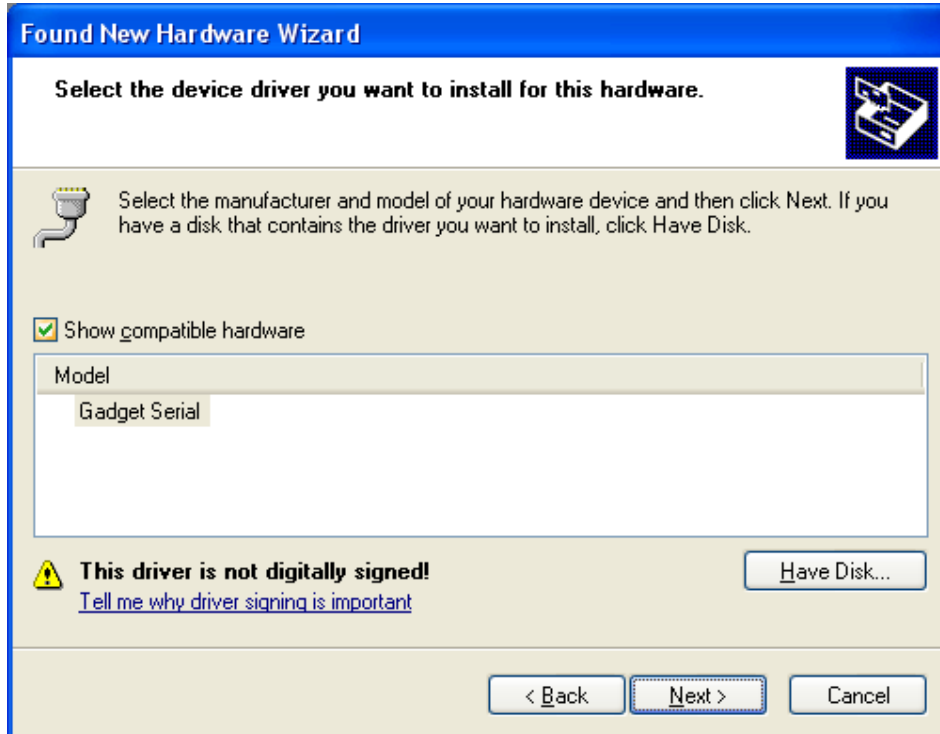Press Next

Install From Disk

Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.

OK

Cancel

Copy manufacturer's files from:

C:\bipom\devtools\GadgetPC\win_drivers\usb_se

Browse...

Press OK

Found New Hardware Wizard

Select the device driver you want to install for this hardware.

Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.

☑ Show compatible hardware

Model

Gadget Serial

⚠ **This driver is not digitally signed!**
Tell me why driver signing is important

Have Disk...

< Back   Next >   Cancel

Press Next

Hardware Installation

The software you are installing for this hardware:

Gadget Serial

has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)

Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.

Continue Anyway | STOP Installation

Press Continue Anyway

Found New Hardware Wizard

Completing the Found New Hardware Wizard

The wizard has finished installing the software for:

Gadget Serial

Click Finish to close the wizard.

< Back | Finish | Cancel
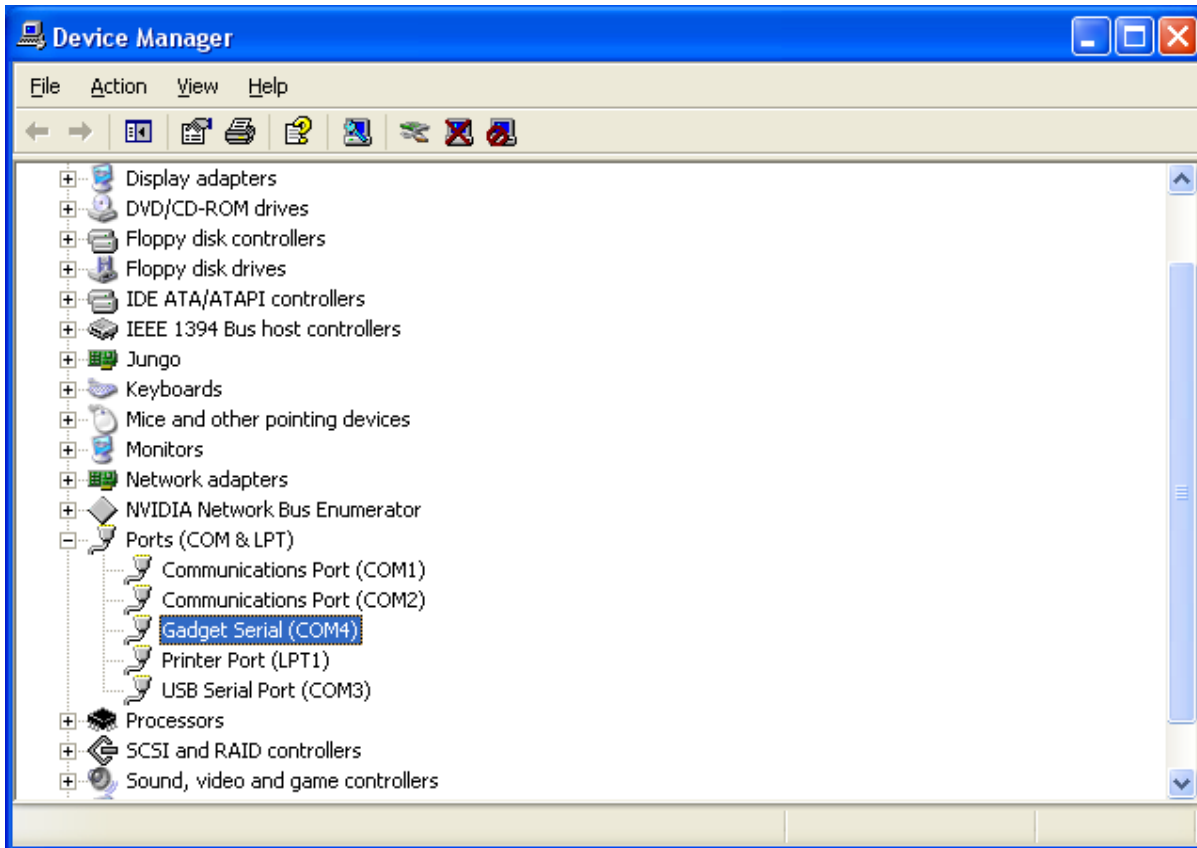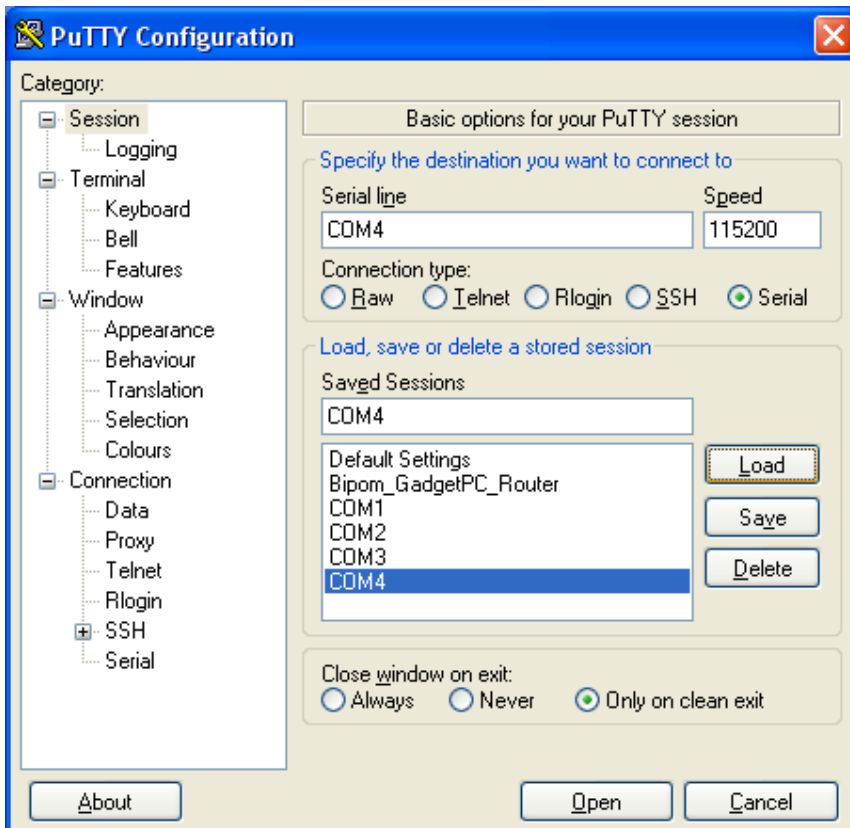
Press Finish

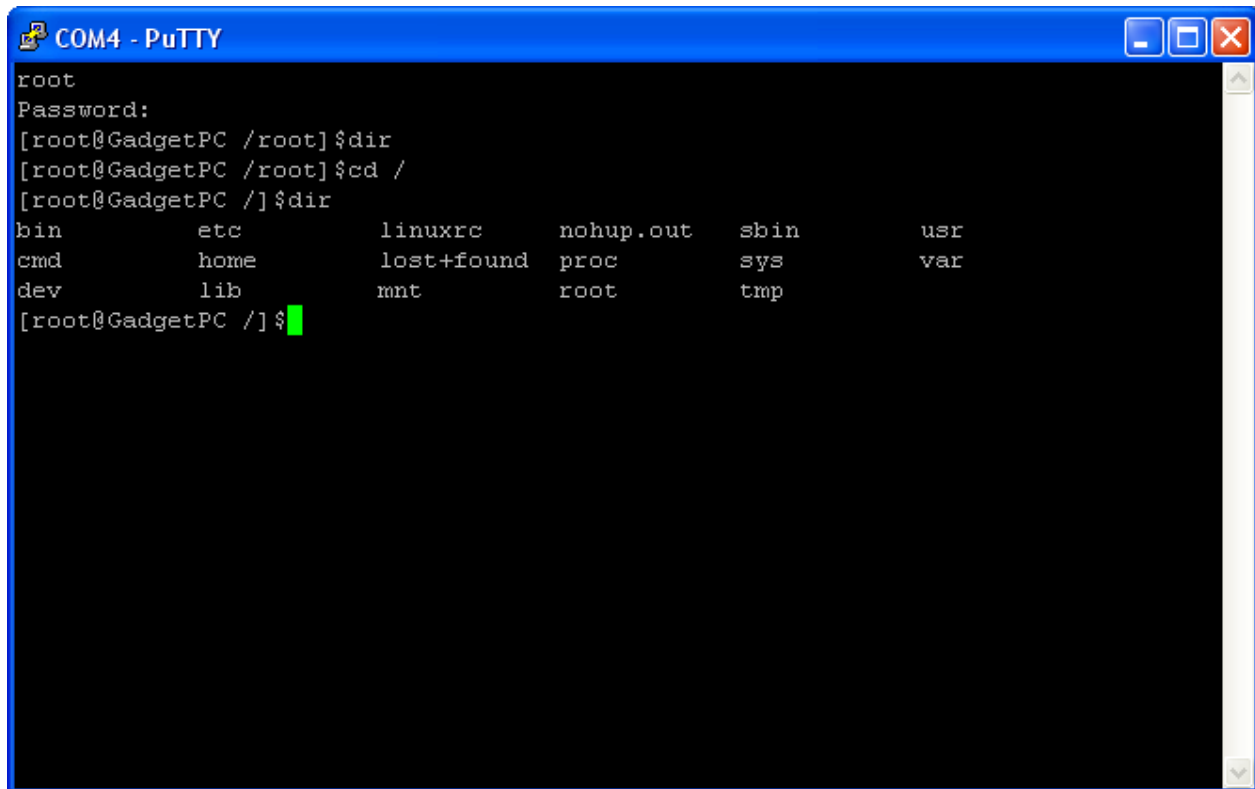Re-check if a virtual COM port is present in the system

5. Linux console.
Use any terminal program (putty, hyperterminal, etc.) to connect to a virtual COM port. Speed is 115200 bps.

Type **root** as a login name, then press ENTER.
Type **newpassword** (you may use your password key) as a password, then press ENTER.

```
root
Password:
[root@GadgetPC /root]$dir
[root@GadgetPC /root]$cd /
[root@GadgetPC /]$dir
bin          etc          linuxrc      nohup.out    sbin         usr
cmd          home         lost+found   proc         sys          var
dev          lib          mnt          root         tmp
[root@GadgetPC /]$
```