

USB serial port emulation on Linux.

Solution number 00001223

Created Date: 2010/03/26

Updated: 2012/10/22

Revision: 1.0

This document assumes the user is familiar with the Linux operating system however the method for setting up and testing a USB serial connection is fairly straightforward with the more recent Linux kernels and distributions.

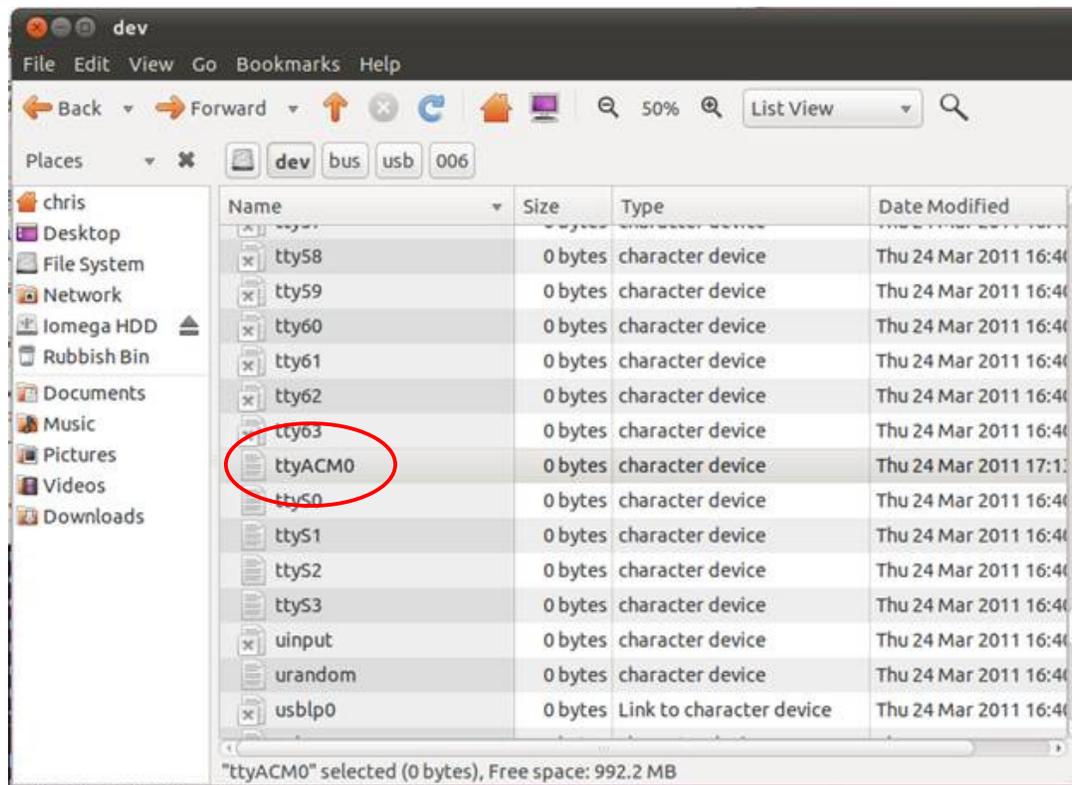
The following Honeywell scanning products can all be connected to Linux using the method described in this document.

- 3800g, 3820, 3820i, 4600, 4620, 4800i, 4820i, 6300, 6320
- 5600, 5620, 5800, 5820
- 1900g Xenon, 1902g Xenon Cordless, 1200g Voyager, 1300 Hyperion

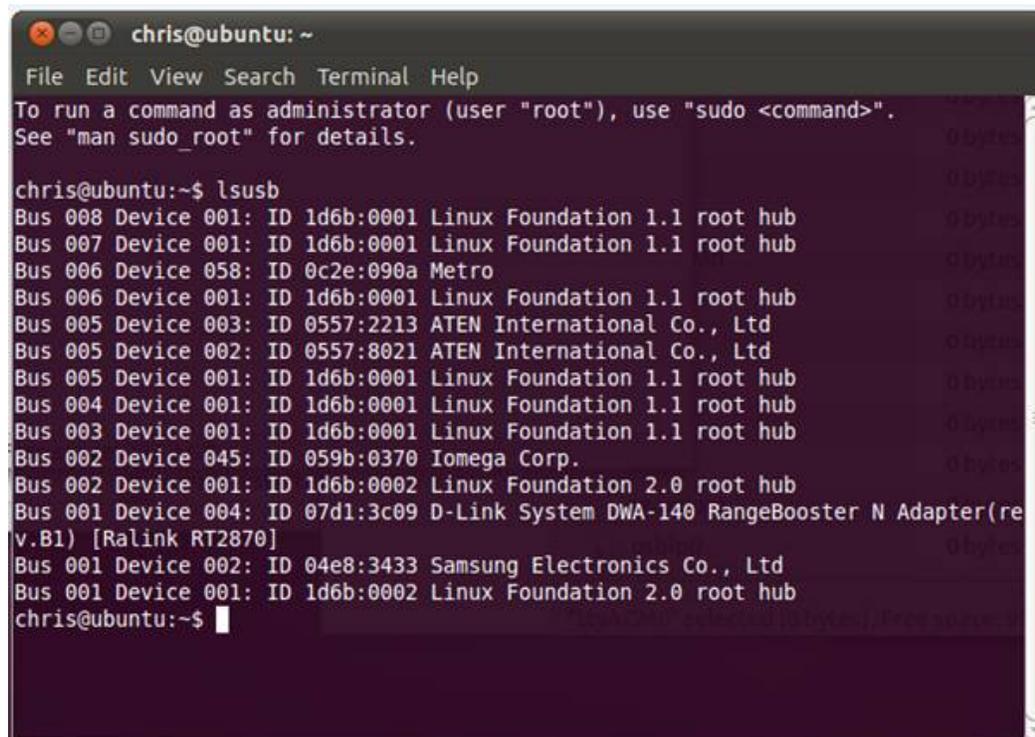
These products support connections using the Linux CDC-ACM driver. Providing the kernel & Distribution versions of Linux support the CDC ACM protocol then there is actually no additional driver software to install.

1. First configure the scanner for USB serial and then connect it to the Linux machine. The screen shots are from the Ubuntu distribution but it has also been tested on SuSe Linux (SLES11).

2. In the File System look for a file named ttyACM0 or similar this will be created when the scanner is plugged in and deleted when it is un-plugged so you can check to see if this is the case. On both Ubuntu and SuSe Linux the file is created in the 'dev' folder.



3. Open a terminal window and check the device appears in the list by typing 'lsusb' + Enter. It should appear a list like this:



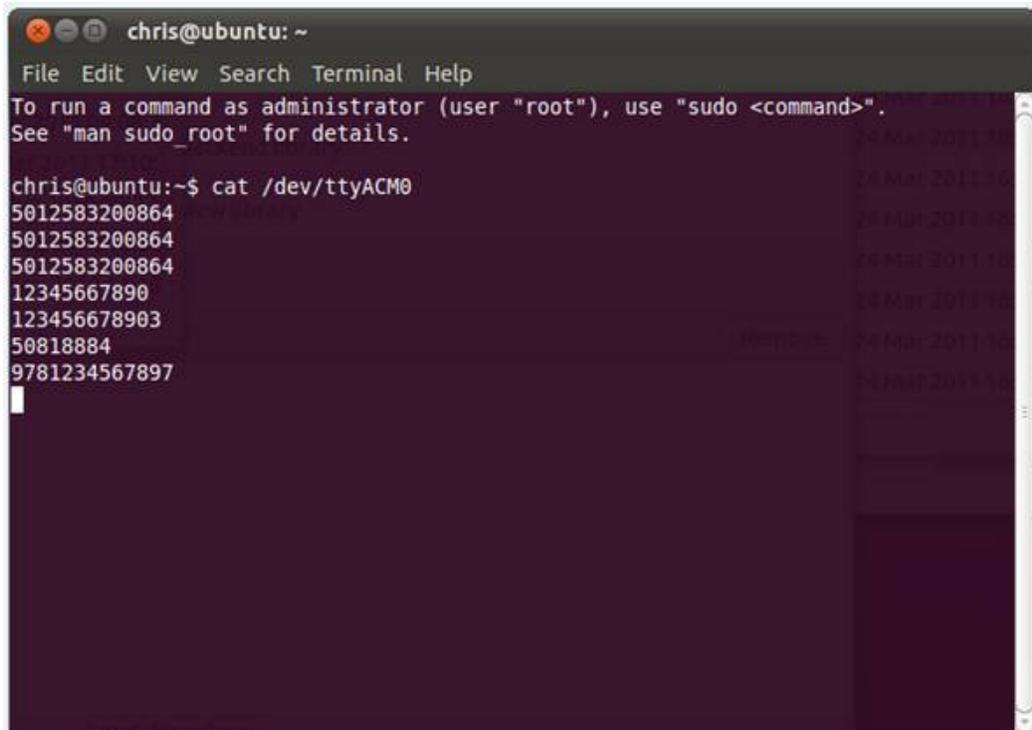
This is an entry from the Honeywell Imaging and Mobility Knowledge base. As part of our ongoing effort to improve and enhance the quality of the solutions, we ask you to inform us if you feel that we can improve on the content of this solution.
For North America: natechsupport@honeywell.com or EMEA: HSMeuros@honeywell.com

The device connected here is a 1900 Xenon and appears as the device on Bus 006 Device 058 called "Metro". Other Honeywell devices may display differently but should be easily distinguishable from other USB devices.

Note: it's possible to get a more verbose detail of connected devices by adding a '-v' to the 'lsusb' command – 'lsusb -v'. For a full set of command line options for lsusb type 'lsusb -?'

4. The next step is to test the communications. At the command prompt type `cat /dev/ttyACM0` + Enter

Note: **Linux is case sensitive** so type the path exactly as it is in the file system.



```
chris@ubuntu: ~  
File Edit View Search Terminal Help  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
chris@ubuntu:~$ cat /dev/ttyACM0  
5012583200864  
5012583200864  
5012583200864  
12345667890  
123456678903  
50818884  
9781234567897
```

5. Scan some codes with the device – they should display in the terminal window as shown above. Seeing data appear verifies that all is working correctly with the CDC-ACM connection.

From here the customer or software integrator should have no problems in establishing communications between the scanner and the host application.