

Connecting to Connect One's iChip over a USB Connection

Quick Guide

Version 1.0

For Linux

(Written for Debian based distributions)

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Introduction

iChipConfig can utilize a PC's USB port to control and configure iChip CO2144SEC / CO2128SEC / CO2064SEC. To enable this feature you will need to use the generic Linux **usbserial** driver. This guide was developed and tested with BackTrack 5 R3.

The driver installs a USB device that appears as an additional **Port** to the Linux operating system.

Once the device is inserted the kernel log (**dmesg**) will show a USB device is connected and which **/dev node** was assigned to it:

```
[1551488.452130] usb 1-2: new full speed USB device number 5 using ohci_hcd
[1551489.009645] cdc_acm 1-2:1.0: ttyACM0: USB ACM device
[1551489.039665] usbcore: registered new interface driver cdc_acm
[1551489.039668] cdc_acm: USB Abstract Control Model driver for USB modems and ISDN adapters
```

You can see from the above information that the USB device is now linked to ttyACM0.

At this point you can easily open the new COM port and work with it directly via **minicom**.

Note: some distributions (CentOS, RHEL, Fedora) may not automatically load the usbserial kernel module and create the /dev node so you will need to manually do that (make sure you are a super user)

```
sudo modprobe usbserial vendor=0x1af1 product=0x0003
```

Consult again the kernel log (dmesg) which will show which **/dev node** was assigned to it.

The **lsusb** command can provide information such as vendor and product ids:

```
Bus 001 Device 005: ID 1af1:0003
```

You may also query the system with **udevadm** (Debian) for more information:

```
daniel@daniel-VirtualBox:/$ udevadm info --query=all -n /dev/ttyACM0
P: /devices/pci0000:00/0000:00:06.0/usb1/1-2/1-2:1.0/tty/ttyACM0
N: ttyACM0
S: serial/by-path/pci-0000:00:06.0-usb-0:2:1.0
S: serial/by-id/usb-1af1_0003-if00
E: UDEV_LOG=3
```

E: DEVPATH=/devices/pci0000:00/0000:00:06.0/usb1/1-2/1-2:1.0/tty/ttyACM0
E: MAJOR=166
E: MINOR=0
E: DEVNAME=/dev/ttyACM0
E: SUBSYSTEM=tty
E: ID_PATH=pci-0000:00:06.0-usb-0:2:1.0
E: ID_PATH_TAG=pci-0000_00_06_0-usb-0_2_1_0
E: ID_VENDOR=1af1
E: ID_VENDOR_ENC=1af1
E: ID_VENDOR_ID=1af1
E: ID_MODEL=0003
E: ID_MODEL_ENC=0003
E: ID_MODEL_ID=0003
E: ID_REVISION=0110
E: ID_SERIAL=1af1_0003
E: ID_TYPE=generic
E: ID_BUS=usb
E: ID_USB_INTERFACES=:020200:0a0000:
E: ID_USB_INTERFACE_NUM=00
E: ID_USB_DRIVER=cdc_acm
E: ID_MM_CANDIDATE=1
E: DEVLINKS=/dev/serial/by-path/pci-0000:00:06.0-usb-0:2:1.0
/dev/serial/by-id/usb-1af1_0003-if00