SPAN A1 Configuration Guide

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1 Current System

Here is my system Info

```
$uname -r
3.15.10-201.fc20.x86_64
```

2 Steps

When the device is plugged in through USB,

```
$dmesg
[ 357.915422] usb 3-2: new full-speed USB device number 6 using xhci_hcd
[ 358.081329]usb 3-2: New USB device found, idVendor=09d7, idProduct=0100
[ 358.081336] usb 3-2: New USB device strings: Mfr=1, Product=2, SerialNumber=3
[ 358.081340] usb 3-2: Product: Novatel GPS Receiver
[ 358.081343] usb 3-2: Manufacturer: Novatel Inc.
[ 358.081346] usb 3-2: SerialNumber: BJYA14250118Z
```

There is no ttyUSB* in /dev/ yet... Next I've tried modprobe with elevated privileges

```
$sudo /sbin/modprobe usbserial vendor=0x09d7 product=0x0100
```

But doesn't work. usbserial is now compiled into the kernel rather than external module. This means usbserial cannot be loaded as a module with custom vendor id. Try adding

```
$gvim /etc/udev/rules.d/99-novatel-span-cpt.rules

SUBSYSTEM!="usb|usb_device", GOTO="novatel_span_cpt_end"
PROGRAM="/sbin/modprobe usbserial vendor=0x09d7 product=0x0100"

ACTION!="add", GOTO="novatel_span_cpt_end"

# These are the vendor and product IDs from NovAtel

ATTRS{idVendor}=="09d7",        ATTRS{idProduct}=="0100",
MODE="0666", SYMLINK+="gps%n"
```

then restart udev again

```
$ udevadm control --reload-rules

$ udevadm trigger
```

Edit your grub2 config to add a generic serial device. you need to do this as root

```
$ echo 09d7 0100 >/sys/bus/usb-serial/drivers/generic/new_id
```

Running dmesg again to check if we have serial converter attached

```
$ dmesg

[13937.787777] usbserial_generic 3-2:1.0: generic converter detected

[13937.788314] usb 3-2: generic converter now attached to ttyUSB0

[13937.789571] usb 3-2: generic converter now attached to ttyUSB1

[13937.789663] usb 3-2: generic converter now attached to ttyUSB2
```

/dev/ttyUSB* is should be there now!