

Advantech AE Technical Share Document

Date	2015/12/2	SR#	1-2312168154
Category	■ FAQ □ SOP	Related OS	Linux
Abstract	Confirm the Installation of Advantech DAQ Device In Linux		
Keyword	DAQNavi driver, Advantech DAQ, Driver installation, Linux		
Related Product			

■ Problem Description:

This document will lead you to confirm your device in Linux after the driver is installed.

■ Brief Solution - Step by Step:

This should be done in terminal. Here we take USB-4716 for example.

1. Firstly, make sure the DAQ device driver has been loaded by the kernel.

Input the command “**lsmod**” to List all the driver modules, then there will be a list listed, find in the list whether “**biokernbase**” and BioDAQ device name exists or not. Following picture shows that the biokernbase and USB-4716 driver has been installed successfully.

```

advantech@advantech-virtual-machine: ~
advantech@advantech-virtual-machine:~$ lsmod
Module                  Size  Used by
binfmt_misc             17540   1
nls_utf8                 12557   1
iso9660                 40257   1
vmwgfx                  122198   1
ttm                     76949   1 vmwgfx
drm                     242038   3 vmwgfx,ttm
bnep                    18281   2
bluetooth               180104   7 bnep
vmw_balloon             12809   0
psmouse                 87603   0
snd_ens1371              25747   2
gameport                19693   1 snd_ens1371
snd_ac97_codec           134826   1 snd_ens1371
ac97_bus                 12730   1 snd_ac97_codec
snd_pcm                  97188   2 snd_ens1371,snd_ac97_codec
snd_rawmidi              30748   1 snd_ens1371
snd_timer                29990   1 snd_pcm
snd_seq_device           14540   1 snd_rawmidi
snd                      78855  10 snd_ens1371,snd_ac97_codec,snd_pcm,snd_rawmidi,s
nd_timer,snd_seq_device
soundcore                15091   1 snd
snd_page_alloc           16329   1 snd_pcm
bio4716                  27962   0
biokernbase              22170   1 bio4716
hid                      99550   0
mptspi                  22921   2
mptscsih                 44882   1 mptspi
mptbase                 103162   2 mptspi,mptscsih
advantech@advantech-virtual-machine:~$

```

2. Secondly, make sure BioDAQ's udev rule file exists.

List the path of udev rule file. Enter the following command “**ls /etc/udev/rules.d/**”. If there is no “71-bionic-daq.rules” file existed, you should compile “biokernbase” driver again by root permission.

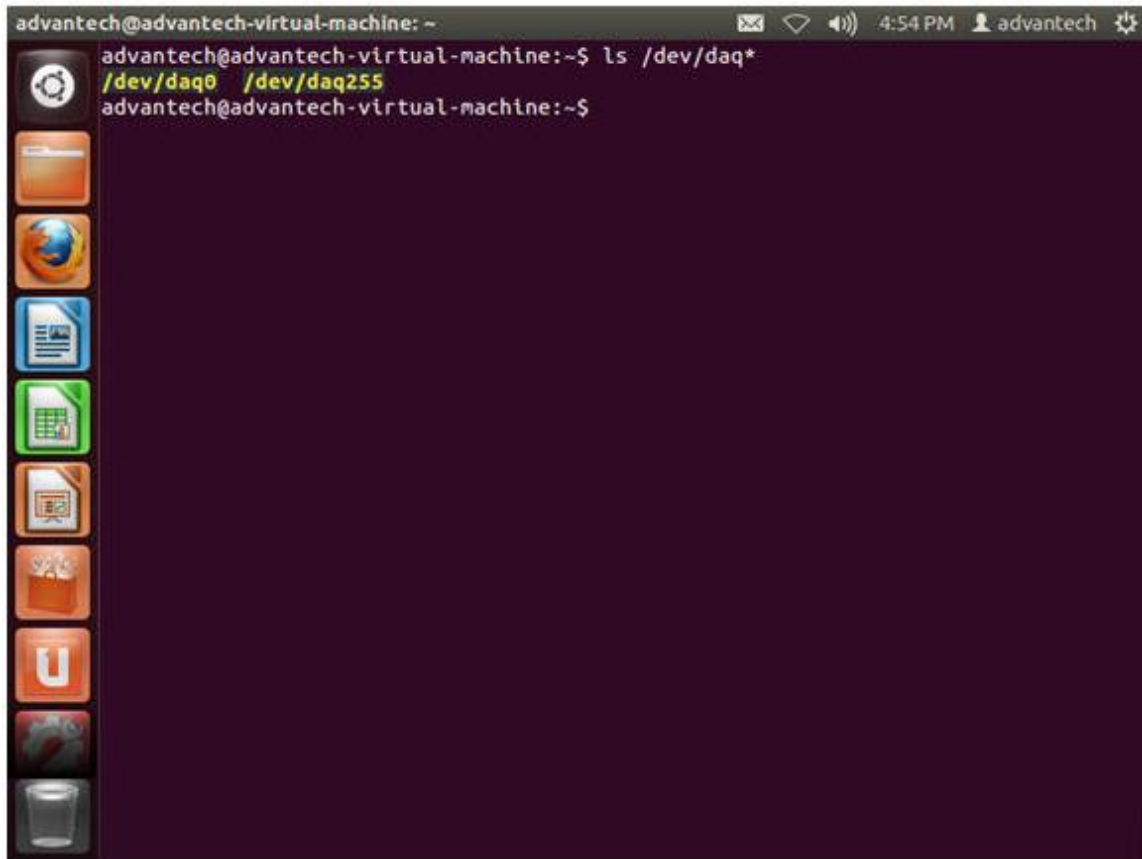
3. Thirdly, make sure the DAQ driver has been successfully matched with the DAQ device.

Enter the command “**ls /dev/daq***” to list all DAQ device nodes. If “/dev/daq255” node exists, this means that biokernbase has been matched successfully. The DAQ device nodes are ranged from 0-254.

If DAQ device node exists, it means that DAQ device driver has been matched successfully then you can run examples or create your applications to control this device.

Here, I installed USB-4716 driver on my computer, the device number is 0. When I input the command "ls /dev/daq*", the results are as follows.

If you want to know the device name of device number 0, please input the command "cat /sys/class/daq/daq0/desc".

A screenshot of a terminal window titled 'advantech@advantech-virtual-machine: ~'. The terminal shows the command 'ls /dev/daq*' being executed, with the output '/dev/daq0 /dev/daq255' displayed in yellow text. The terminal window has a dark purple background and a sidebar on the left with various application icons. The top status bar shows the time as 4:54 PM and the user as 'advantech'.

4. Finally, make sure the DAQ device node has read and write permissions.

List all DAQ device nodes. Enter the following command "ls /dev/daq* -al". If DAQ device node doesn't have read and write permission, please check the BioDAQ's udev rule file as step2.

■ **Reference:**