

Advantech AE Technical Share Document

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Category	■ FAQ □ SOP	Related OS	Linux
Abstract	How to Use Advantech DAQNav C++ Example In Linux		
Keyword	Advantech DAQNav, C++ example, Linux		
Related Product			

■ Problem Description:

This FAQ will lead you to build the example code for testing the DAQ functions in Linux.

■ Brief Solution - Step by Step:

1. Download the drivers and examples from the website.
2. Put the driver folder in the directory you want.
3. Enter the folder.
4. Install the driver (see "How to Install Advantech DAQNav Driver in Linux?").
5. After the driver is installed, open the driver folder and pick one you want to test.
6. Edit the example program. Here we take AO_StaticAO for example. (You should install g++ and gedit in advance for editing the example)
 - `gedit AO_StaticAO.CPP`

```

*
* Example Category:
*   AO
*
* Description:
*   This example demonstrates how to use Static AO voltage function.
*
* Instructions for Running:
*   1 Set the 'deviceDescription' for opening the device.
*   2 Set the 'channelStart' as the first channel for analog data Output .
*   3 Set the 'channelCount' to decide how many sequential channels to output analog data.
*
* I/O Connections Overview:
*   Please refer to your hardware reference manual.
*
*****/
#include <stdlib.h>
#include <stdio.h>
#include <math.h>
#include "../inc/compatibility.h"
#include "../../inc/bdaqctrl.h"
using namespace Automation::BDAQ;
//-----
// Configure the following three parameters before running the demo
//-----
#define ONE_WAVE_POINT_COUNT 512 //define how many data to makeup a waveform period.
#define deviceDescription L"DemoDevice,BID#0"

int32 channelStart = 0;
int32 channelCount = 1;
    
```

The example is programmed for Demo Device in advance so you'll see *deviceDescription* is set to be "DemoDevice,BID#0". You will be able to edit the example code through gedit command and you must

edit the device description so that you can control the board. If you build the program without revision, you will get a returned error code 0xE0000015 which means device does not exist.

7. If you don't know the device description of your device, you can enter the command **"cat /sys/class/daq/daq0/desc"**. "Daq0" here could be changed into other enumeration (e.g. daq10) if you have more than one device in your system.
8. After the revision is made, save and compile the code. The makefile is already built in the example folder so you can simply "make" to build the example.
9. Execute the example.
 - `./AO_StaticAO`

■ **Reference:**