

Installation of drivers and getting started with the software

1. Visit <http://joule.ni.com/nidu/cds/view/p/id/2604/lang/en> Download the NI Downloader for the DAQmx version 9.4 software. This contains files for the drivers and running the data acquisition hardware. The file is quite large. You will need to register through National Instruments, but the file is a free download.
2. Install the file. It will take a long time. Accept the defaults and just keep clicking OK. Follow the directions to reboot the computer.
3. Plug your USB 6009 Data Acquisition hardware (DAQ) into your computer through the USB cable. If everything was installed properly, then the hardware should be recognized. If it is not, then you likely need to reboot.
4. Open the program under National Instruments; Measurement and Automation. On the tabs on the left, open “devices and interfaces” and you should find the NI USB-6009 listed as ‘Dev1’. Next time if you plug a different serial number DAQ in, it will be default be added as ‘Dev2’. Click on your device and click “self-test” at the top. If you pass the self-test, the device is installed and ready to go.
5. Right click on 32 bit MATLAB and select “Run as administrator”. At the MATLAB prompt, type `daqregister('nidaq')`. If this is successful, close MATLAB.
6. Now this is important. **Plug in one of the USB hubs**. Given a bug in the NI software, we get better reliability if we plug in the device through a hub. Don’t ask why. Many days were wasted on this problem. It is an issue with 64 bit windows, which we did not have last year. Wait for the hub to be installed. Plug in the DAQ through the USB hub.
7. Launch 32 bit MATLAB as the normal user. Type `daqhwinfo('nidaq')` at the MATLAB prompt. It should return some information about the device. The installed board should be listed as ‘Dev1’. If you repeat all this with a different serial number DAQ, then it will be listed as ‘Dev2’.
8. Download and run `DAQtemplate.m` from the website. If it runs with no errors, you are good to go.