DAQFactory-LabJack Quick Tutorial

- **Acquire** one analog input (AIN0)
- **Convert** to engineering units
- **Display** as a number and a graph
- **Control** a digital output (FIO4)
- **Log** the analog input to disk

**Before Starting Complete:**
LabJack Windows Quick Start Guide

**Tutorial for one U3/U6/UE9x on USB**
Not for U12

See DAQFactory-LabJack Application Guide

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1. **Start DAQFactory:**
   - Start => All Programs => DAQFactory Express => DAQFactory Express
   - [Image: Start]
   - [Section 2.3]

2. **Click CONVERSIONS:**
   - in Workspace
   - [Image: Workspace]
   - [Section 3.1]

3. **Click Add, Fill in row:**
   - Conversion Name = PressurePsi
   - Formula = (Value + 1) * 100
   - [Image: Add, Fill in row]
   - [Section 4.3]

4. **Click CHANNELES:**
   - in Workspace
   - [Image: CHANNELES]
   - [Section 3.1]

5. **Click Add, Fill in new row:**
   - Channel Name = Pressure
   - Device Type = LabJack (NOT LabJack_U12)
   - DI# = 0
   - I/O Type = A to D
   - Channel = 0
   - Conversion = PressurePsi
   - **Click Add, Fill in new row:**
     - Channel Name = Pump
     - Device Type = LabJack
     - DI# = 0
     - I/O Type = Dig Out
     - Channel = 4
     - [Image: Add, Fill in new row]
     - [Section 3.1]

6. **Click Apply**
   - [Image: Apply]
6. **Click Page_0 in Workspace**

7. **Right Click in blank area. Select Displays => Variable Value**
   
8. **Right Click on Value: 0.000 V. Select Properties...**
   
9. **Fill in window:**
   - Caption = The Pressure
   - Expression = Pressure[0]
   - Units = psi
   - Click OK

10. **Right Click in blank area. Select Graphs => 2D Graph**
    
11. **While pressing the Ctrl key, click and drag bottom right corner to resize**

12. **Right Click on graph. Select Properties...**

13. **Fill in window:**
   - Y Expression = Pressure

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Section 4.1

Section 4.2

Section 4.5
14. Click Axes tab. 
   Fill in window:
   Scale From = -10
   Scale To = 500
   Click OK

15. Right Click in blank area. 
   Select Displays => Descriptive Text
   (click while holding Ctrl key to move component)

16. Right Click on Text. 
   Select Properties...
   Section 4.4

17. Click Digital Out
   Enter Pump. 
   Click OK
   Click Pump to toggle FIO4 output
   Section 4.4 / 4.6
18. Right Click in Workspace.
Select Add Logging Set.
Enter MyLog.
Click OK.

19. Fill in window:
Click the >> button.
Click Apply.

20. Click + next to LOGGING in Workspace.
Right Click MyLog.
Select Begin Logging Set.
(Click Page 0 to return to graph)

samples!QuickTutorial.ctl
DAQFactory - LabJack Application Guide
DAQFactory Express Users Guide
www.daexpress.com

DAQFactory Pro Trial
25 day trial included on the CD or at www.azeotech.com

Unlimited pages, 30 more screen components, connectivity to other devices, more allowable I/O points, and much more...