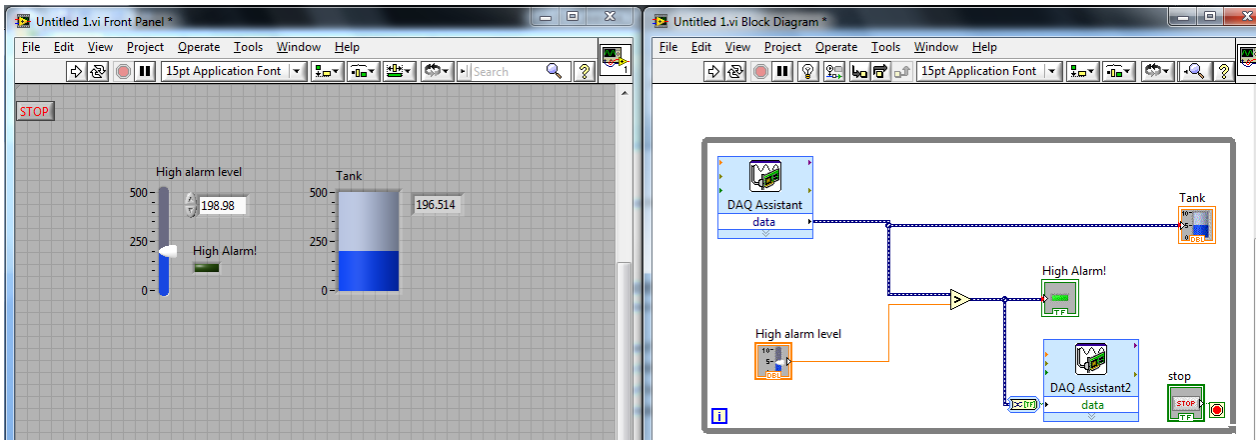
National Instruments LabVIEW 2010 software exercise #3

In this exercise, you will build upon exercise #2 to add a digital output to the program, so that an actual LED connected to the DAQ will turn on if ever the imaginary water tank's level exceeds the high-alarm threshold. The LED should already be connected to your DAQ unit (positive lead on pin 17 and negative lead on pin 32, with a current-limiting resistor in series with the LED).

The finished Virtual Instrument project should look something like this:



- Insert a digital output block in the Block Diagram window:
  - Right-click anywhere on white window space to pull up "Functions" menu
  - In Express, select "Output"
  - Under "Output", select "DAQ Assistant"
  - Place DAQ Assistant block inside the While loop
- Configure DAQ Assistant to write data to the first digital output channel
  - In the "Create New Express Task" window, select "Generate Signals"
  - Select "Digital Output"
  - Select "Line Output"
  - The window should now show all twelve digital output channels on your USB-6008 DAQ device
  - Click on whichever channel you plan to use (e.g. *port0/line0*) and then click "Finish"
  - A new DAQ Assistant window will open, asking you to configure that channel:
    - Select "1 Sample (On Demand)" for the Generation Mode. This tells the function to write to the output channel once for every execution.
    - Click "OK" button in the lower-right corner of the window to finish
- Connect the DAQ Assistant (output) instruction to the same line connecting the "Greater?" comparison function to the LED panel indicator
- Try running the new project, verifying that the real LED does indeed turn on when it should
- *Troubleshooting???*