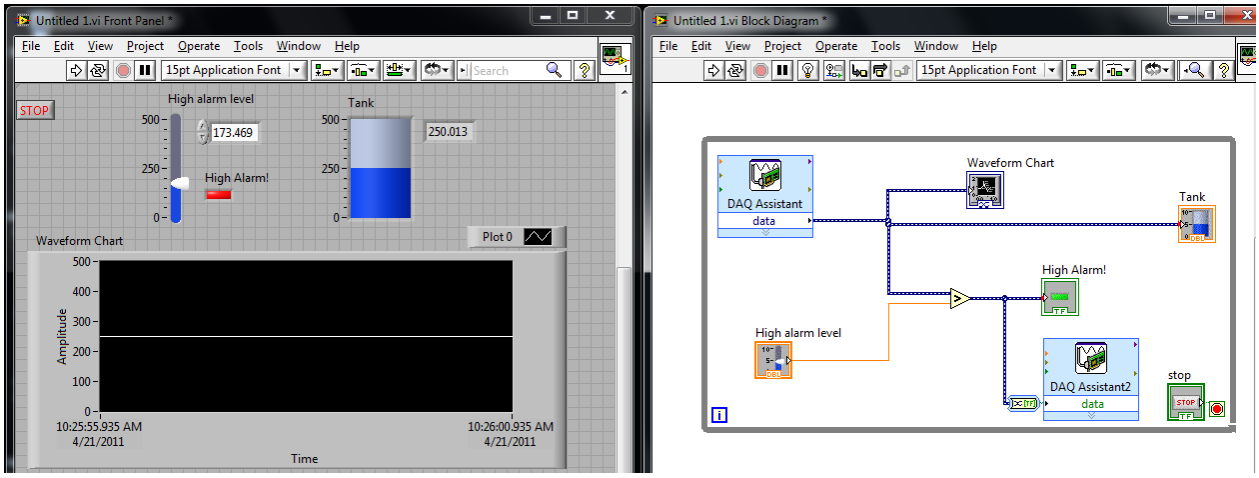
National Instruments LabVIEW 2010 software exercise #4

In this exercise, you will build upon exercises #2 and #3 to add a trend graph to the program, so that you will have a graphical record of the tank's level over time.

The finished Virtual Instrument project should look something like this:



- Insert a "Waveform Chart" in the Front Panel window:
  - Right-click anywhere on grey window space to pull up "Controls" menu
  - In Express, select "Graph Indicators"
  - Under "Graph Indicators", select "Waveform Chart"
  - Place Waveform chart in the Front Panel window, resizing as desired
- Configure parameters in the Waveform chart object:
  - Right-click on the chart object in the Front Panel window
  - Select "Properties" from the pull-down menu
  - Set the scale on the Y-axis to match the tank (0 to 500, no auto-scaling)
- Connect the Waveform Chart object in the Block Diagram window to the same signal line connecting the input DAQ Assistant block to the Tank indicator block
- Try running the new project, verifying that the Waveform chart records tank level as it should
- Export graphed data to Excel spreadsheet:
  - Right-click on the Waveform chart and select the "Export" option
  - Choose "Export Data to Excel"
  - Microsoft Excel spreadsheet will now open with two columns of numerical data shown, which you may save (to an .xlsx file) or graphically plot by inserting the appropriate type of chart