

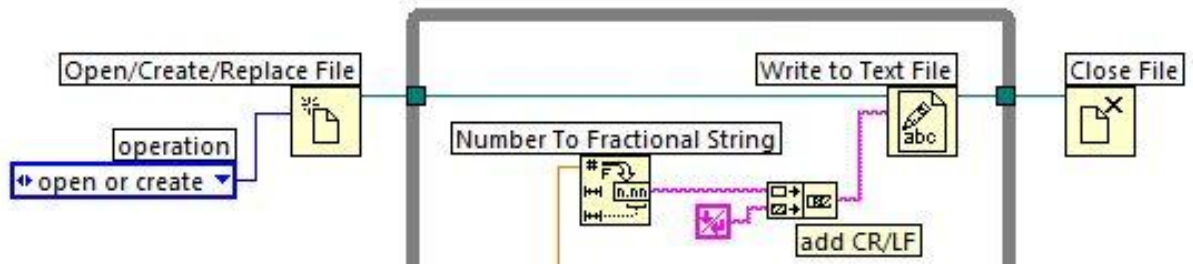
**Post-Grad  
LabVIEW Course  
Exercise 6  
G Boorman**

## Exercise 6 - Writing Data to File

Modify Temperature Logger.vi to write data to file.

### Block Diagram

1. Add the following to the While Loop of the block diagram.



(note: for clarity each of the VIs in the above diagram has their label displayed)

- a. Expand the While Loop to create some more space.
  - b. Select *Open/Create/Replace File* from **File I/O** palette and place to the left of the While Loop. Right-click on the *Operation* terminal and create a constant. Select 'open or create'.
  - c. Place *Number To Fractional String* from the **String>>String/Number Conversion** palette. Wire data from *Thermometer.vi* to the *Number* terminal.
  - d. Right-click the *Number To Fractional String* output terminal and select **Concatenate** from the **String** menu item. Add an *End of Line (Carriage Return /Line Feed)* constant from the **String** palette.
  - e. Add *Write to Text File*, and *Close File*, then wire the File Reference to each VI.
2. Save the VI as Temperature Logger File.vi.
  3. Display the front panel and run the VI.

4. Select a filename for the log file, collect a few seconds of data then stop the VI. View the log file using Notepad. Notice the column of data written in the file.
5. Add Width and Precision Controls to the front panel and wire them to the terminals on *Number To Fractional String*. Run the VI and change the Width and Precision values. Observe the effect on the data in the log file.
6. Create a Header for the log file.
  - a. Select *Get Date/Time In Seconds* and *Get Date/Time String* from the **Timing** Palette and wire together.
  - b. Add an *End of Line* constant to the end of date string using Concatenate. Move the mouse over the lower edge of Concatenate and pull down two more inputs.
  - c. Wire time string to the third terminal of Concatenate and *End of Line* constant to the fourth terminal.
  - d. Between *Open/Create/Replace File* and the While loop write the new string to file, using *Write to Text File*.
7. Save and run the VI. Check the log file has the data and time written correctly into the first two lines.
8. Add a constant to *Get Time/Date String format* terminal. See the effect of the different date formats (see *Lecture 4: Basics 3* for an example of the date and time format switches). Add a True constant to the *Want Seconds?* terminal.
9. Save the VI.

## End of Exercise