# Stat 604
# Assignment 8 - SAS

OBJECTIVES: The purpose of this assignment is to practice inserting comments into SAS programs, to reinforce the concept of SAS libraries, to become familiar with the Output Delivery System (ODS), and to practice displaying the contents of SAS libraries and data sets. For many of you, the biggest challenge of this assignment will be following written directions. Please reread the directions before posting questions on eCampus.

You should have all of the information you need to complete this assignment by viewing Lectures SAS01 and SAS02.

If you have not already done so, download the **Prog 1 Sample Data and Programs (zip archive)** file from the Course Material section on eCampus. Open the zip file and extract all files to a folder on your computer. DO NOT store these files anywhere under C:\Program Files or in the temp folder under your user folder. If you are using the SAS University Edition, make sure you store them under the **myfolders** folder so you can access them in SAS Studio.

As with R, there will usually be three PDF files posted to WebAssign –one for the program, one for the log, and one containing the SAS output. However, for this assignment there will be two output files as explained later in this assignment. You will also need to copy and paste the log from two separate executions of the program into a separate log document.

NOTE: You can run portions of your SAS program by highlighting the step you want to run and then click on the running man icon at the top of the SAS window.

Refer to pages 7-9 of the SAS WOW! document listed under Links for examples of program headers and documentation blocks.

1.  Open the program p103e02.sas from the files you just extracted. DO NOT double click on this program from Windows explorer because this will probably open the file in Enterprise Guide which we are not using for this class.
2.  Use File – Save As to save the program with a new name so you do not overwrite the original program.
3.  Add the header comment section to the beginning of the program. Be sure to include a comment line above each section of the program that identifies the associated assignment step and a brief description of what the section is doing.
4.  Create two libname statements between the program header and the existing data step. One will assign the library orion to the location of the sample programs and data that you downloaded and extracted above. Add the option **access=readonly** between the path and the semicolon in your libname statement to makes sure you do not accidentally overwrite files in this library. Use a name of your choosing to assign a libref to another folder to which you have access to read and write. If you are using the SAS Studio Web Editor, this will be a folder under My Folders. Using PC SAS it will be a folder on your computer such as the "My Documents"

folder. (NOTE: You will need to create the folder if it does not exist before assigning a libref to it.)

5. The program p103e02.sas was written with the expectation that the sample files were saved to the default folder used by your SAS session which is probably not true for your installation. The data step in this program creates a data set by reading in a raw data file named donation.dat much like you did in the last two R assignments. However, the program will not be able to find the file unless you provide the full path to the file. Add the path to the donation.dat file on the infile statement so you can be sure that your program will be able to find the data.

6. Use a single character to comment out the proc print line.

7. Copy the data step referenced in step 5 above and paste the copy at the bottom of your program. Edit this new data step so that it will create the donations data set in the new library that you created in step 4 above (not orion).

8. Open a PDF destination to capture the output from the procedures that follow. Refer to the document ODS PDF Tip Sheet for options to control the output. Add an option to suppress the bookmarks so they are not part of the output file. Use a name for the file like FKincheloe_HW08_outputA.pdf. We will create an outputB file later. (Use your own ID in place of FKincheloe.)

9. Add a proc contents step that will display the descriptor portion of the donations data set that was created in step 7 in your new library.

10. Add a proc contents step that will show the contents of the work library including the descriptor portion of each dataset. Note: Those using SAS Studio will have more items listed than those running PC SAS.

11. Add a proc contents step that will show the contents of the orion library without displaying the descriptor portion of each dataset.

12. Close your PDF output destination. Your output should be very similar to the sample output posted on eCampus. However, the sample output may include a few data sets that are not in your fresh installation. This is acceptable.

13. When you have your program debugged and running without errors, close SAS or Sign Out of SAS Studio. Then reopen SAS and run your program again. Copy the log and paste it into a document that you can edit with your favorite text editor.

14. Close(Sign Out) and reopen SAS along with your SAS program for this assignment. Comment out the two data steps created in steps 5 and 7. Note: You can comment out multiple lines at once by highlighting the lines and then pressing the CTRL and / keys together. Comment out the PDF output statement. Create a new PDF output statement similar to the first plus an option that changes the style to one you like that includes color. Change the outputA portion of the file name to outputB.

15. Execute the modified program.

16. Copy the SAS log into the document that contains the log from the previous run.

17. In your log document, write an explanation comparing the results in the "outputA" file with the results in the "outputB" file. Be sure to give a reason for the results you experienced. Save the document as a PDF file with a name like FKincheloe_HW08_log.pdf

18. Save the final version of the program and convert it to a PDF file with a name like FKincheloe_HW08_prog.pdf

19. Post the four PDF documents on WebAssign.