SAS® GLOBAL FORUM 2016
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Guidelines for Creating a Hands-On Workshop

The following are some guidelines for creating a Hands-On Workshop (HOW). As the name implies, attendees are expecting to learn about your topic by actually creating code that works and demonstrates the principle you are trying to teach. The term “code” is used loosely in that GUI products such as SAS® Enterprise Guide® or SAS® Data Integration Studio may use examples where the attendees create the process-flow equivalent of code.

You not only will be talking about your topic as you would in a tutorials-type section, but also you will be providing directed exercises. As you prepare your talk, and more importantly as you create exercises, keep in mind there is a fine line between talking down at the attendees and talking over their heads. You will lose some people because they want more of a challenge and lose others because you were too challenging. Don't worry about this; you cannot please everyone.

1. Keep it simple.

Do not try to cover too much. Remember that most of the attendees are in your workshop because your topic is new to them. In fact, many of the attendees are probably relatively new to SAS.

2. Keep your exercises consistent.

As much as possible, build upon the previous exercises. Your attendees may be struggling with the concept you are developing so do not confound them more with exercises that jump all over the map. When possible, solve a single problem with increasingly complex exercises/solutions/options. Finally, limit the number of data sets to be used. Whenever possible only use one data set; needless to say, exercises aimed at teaching join techniques will require multiple data sets.

3. Be aware of the time.

Rehearse your presentation and schedule a set amount of time for each exercise while building in a few extra minutes for clarification and questions. One good way to check the time and the challenge of your exercises is to rehearse with one or more colleagues/friends who you think are at the target level of the users. Not only will this help you hone your timing, but also it will let you identify and correct any ambiguity. Make sure you have the right amount of material to fill your time slot. At SAS Global Forum we provide 100 minutes for your workshop; this includes any time you want to set aside at the end of the workshop for questions. We expect you to finish at the 100-minute mark, not at 90 minutes and not at 101 minutes as we politely reboot your computer.

4. Minimize the amount of typing an attendee has to do.

Your exercises should be “fill in the blanks.” If you have the time and energy you may want to create two versions: one that’s just fill in the blanks and another where they have to think (and type) more. Make sure you number your exercises; some attendees will get lost and this will help them find their place again.

5. Provide a working copy of each exercise.

If a person gets totally muddled, he/she can run the working copy and get the exercise completed to move on to the next section (rather than walking out because he/she is lost). Keep the working copy in a Solutions folder (see folder structure below).

6. Have a one-page handout/cheat sheet for the attendees to reference.

This is particularly important if your exercises will be using specific syntax rules and/or options that are easily forgotten.

7. Aim for a 50/50 to 60/40 split between exercises and lecture.

Attendees are there to learn by doing, not by listening. The number of exercises used will depend on the length of your workshop, your topic and the complexity of your examples. A 100-minute workshop may allow for eight to ten exercises.

8. Introduce the exercise.

Let the attendees know what the exercise is about to teach them. Tell them how to locate the exercise and tell them how long you are giving them. Before they start, ask if there are any questions.

9. Check progress on the exercise.

Halfway through the exercise, ask if there are any questions or problems. There will be room coordinators helping the attendees, however you must watch for them trying to catch your attention if they need help from you. At the ¾ mark, ask if people need more time, and wrap up the exercise if appropriate.

10. Wrap up the exercise.

When the time you have allotted for the exercise has come to an end, summarize what the exercise was teaching and ask if there are questions.

Unlike tutorial-style papers, you have to deliver more than a final PDF version of paper; you have to deliver all of your workshop materials. Moreover, the workshop materials are due before the final paper is due. Well before the workshop, you have to provide a copy of all your workshop materials and a detailed list of all the SAS and non-SAS products you require (including software versions). The tech support people at SAS who image and configure the workshop computers need the lead time to assemble all of the software and make sure each of the workshops runs properly and does not interfere with the running of any other workshop.

Folder Structure

In order to facilitate the reconfiguration of the workshop computers you must use the following directory as your home directory:

C:\HOW\<speakerlastname>

where <lastname> is your last name, or the last name of the primary author when there are multiple authors. Although you can create any folders you see fit within your home directory, you should consider limiting to the following:

\data for your data sets.

\exercises for your exercise.

\solutions for the working versions of your exercises.

\results for any HTML, RTF, PDF, etc. generated.

\startup for your AUTOEXEC.SAS and custom configuration files.

Your AUTOEXEC will execute any LIBNAME and/or other statements to prepare the SAS session for the exercises.

Submitting Your Workshop Materials

Create a ZIP file of your home directory and all the subdirectories and files; make sure you include full path names. Include in the ZIP a README.TXT file with the following:

- Your name.
- Contact information (email and phone).
- The paper number.
- A description of the files in the ZIP.
- The software required to run your exercise.

The README file will be used by[Speaker Resource Center](#) the SAS tech support people who will be configuring the computers.

For the non-GUI workshops there are two additional files you must include. One is a .SAS file with a complete runnable copy all of your exercises; the other is a .LOG file showing your

results. The runnable .SAS file will allow tech support to verify everything runs with no manual intervention while the .LOG file will allow them to verify they have results consistent with yours.

On or before the deadline for the materials, rename your ZIP file to ZQJ<lastname>.ZIP and upload it to the Speaker Resource Center.

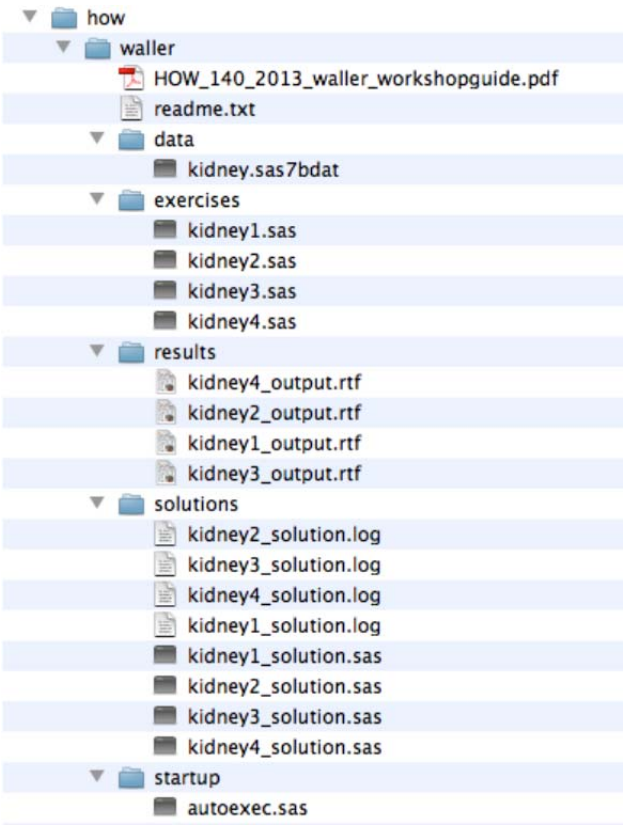
At the Conference

You will have the opportunity to test your workshop material on the session computer where you will run your presentation and on one of the computers that an attendee will use. We will notify you closer to the conference to arrange a time on Monday, April 18.

On the day of your workshop, arrive at least 20 minutes before your presentation and ensure the room coordinator knows you have arrived. There is a brief changeover between workshops.

After your workshop, please take any remaining questions outside the room. All attendees are required to leave the room between sessions.

Example of Folder Structure



Example of AUTOEXEC.SAS

```
options nocenter pageno=1;

libname in 'c:\how\waller\data';

run;

run;

quit;

run;
```

Example of README.TXT File

```
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Paper Number # 140-2013

Subdirectories and Files under c:\how\waller

Subdirectory      Filename                                        Description

                  HOW_140_2013_waller_workshopguide.pdf           PDF of
                                                                  detailed
                                                                  guidelines
                                                                  and
                                                                  instruction
                                                                  s for each
                                                                  workshop

\data             Subdirectory containing data sets

\data             kidney.sas7bdat                      SAS 9.1.3 data set
containing 12 observations and 23 variables

\exercises        Subdirectory containing 4 SAS programs to for students to
use

\exercises        kidney1.sas       Workshop 1         SAS program

\exercises        kidney2.sas       Workshop 2         SAS program

\exercises        kidney3.sas       Workshop 3         SAS program
```

\exercises	kidney4.sas	Workshop 4 SAS program
\results	Subdirectory for RTF output files from each workshop	
\results program	kidney1_output.rtf	RTF Output file from Workshop 1
\results program	kidney2_output.rtf	RTF Output file from Workshop 2
\results program	kidney3_output.rtf	RTF Output file from Workshop 3
\results program	kidney4_output.rtf	RTF Output file from Workshop 4
\solutions workshop	Subdirectory containing solution	SAS programs for each
\solutions	kidney1_solution.sas	Workshop 1 Solution SAS program
\solutions	kidney2_solution.sas	Workshop 2 Solution SAS program
\solutions	kidney3_solution.sas	Workshop 3 Solution SAS program
\solutions	kidney4_solution.sas	Workshop 4 Solution SAS program
\solutions	kidney1_solution.log	Workshop 1 Solution log file
\solutions	kidney2_solution.log	Workshop 2 Solution log file
\solutions	kidney3_solution.log	Workshop 3 Solution log file
\solutions	kidney4_solution.log	Workshop 4 Solution log file
\startup	Subdirectory containing startup files for the workshop	
\startup	autoexec.sas	Workshop autoexec file

Software necessary to run the SAS programs in the workshop:

- MS Office Word
- Adobe Acrobat Reader
- SAS 9.3 Base\Stat