DCSUG Newsletter

Washington, DC SAS Users Group

Second Quarter Meeting

When: Tuesday, June 3, 1997
Time: 8:30a.m. to noon
Place: Bureau of Labor Statistics
           Postal Square Building
           Room G440
           First Street North East
           Washington DC

Agenda: 8:30 - 9:00   Registration and refreshments
           9:00 - 9:15   Announcements
           9:15 - 10:15   Dave Brumitt, SAS® Institute Inc.
                              Technical Support's Data Mart
           10:15 - 10:30   Break
           10:30 - 11:30   Michael Raithel, U.S. Customs Service
                              Summarizing Impossibly Large SAS Data Sets
                              For the Data Warehouse Server Using Horizontal
                              Summarization
           11:30 - noon   User-to User Questions and Answers
                              Moderators - DCSUG officers

Visitors must use the visitor's entrance on First Street NE. Directions for those taking Metro: Take the Red Line to Union Station. Exit the station via the Amtrak exit, but do not go up to the train level. Instead, after going up to and out through the farecard gates, turn to the left where there is an exit to the street (First Street NE). Directly across from the exit are the employee and visitor's entrances to the building. After checking in with security, take the main elevators down to the G level. BRING PICTURE ID!

	If you have special needs and are planning to attend this meeting, please contact any DCSUG officer no later than 5/27/97

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President's Message
Peter Knapp
U.S. Department of Commerce

I recently had the privilege of attending SUGI 22 in San Diego, CA. I learned a lot and enjoyed networking with fellow SAS professionals. For those of you not fortunate enough to make it to SUGI 22, I strongly recommend that you try to attend one (or both) of the upcoming SAS conferences that are closer to home - either SESUG '97 in Jacksonville, FL on September 21-23,1997, or NESUG '97 in Baltimore, MD on October 5-7, 1997. Of course the easiest gatherings to attend are DCSUG meetings. They are local and they are free. The next two meetings are on July 23 when the DCSUG Desktop SIG meets in Rockville and on June 3, when DCSUG meets in Washington at the Bureau of Labor Statistics. Dave Brumitt from the SAS Institute Inc and Michael Raithel, US Customs Service will be our featured speakers at the June 3 meeting. I hope to see you there!

Technical Support's Data Mart
Dave Brumitt, SAS® Institute Inc.
Director of Technical Support

The Technical Support Division at SAS Institute has constructed a small data warehouse for internal use. This paper will explore the process of building and exploiting it. This will be a real world example based on pragmatic solutions to the problems encountered.

From the SUGI 22 Opening Session Highlights

Dave Brumitt grew up in the San Jouquin valley of Southern California in Bakersfield. Despite being raised on a steady diet of drag racing and country music he eventually attended college and after extended stays in Pocatello, Idaho (BS, Economics, Idaho State University) and Salt Lake City, Utah (MS, Economics, University of Utah) he found his way to SAS Institute.

He initially joined the Institute in 1985 as Tech Support Manager for PC Systems. This was just prior to the release of 6.01 and he managed support of the PC (and eventually Unix) products until 1994 when he joined the Institute's Asia/Pacific Operation as Technical Manager. After 2 years of roaming around Asia and the South Pacific, he was appointed Director of Technical Support in 1996, turned in his American Airlines Platinum card and now spends his time in Cary, North Carolina.

Summarizing Impossibly Large SAS Data Sets for the Data Warehouse Server Using Horizontal Summarization
Michael A. Raithel, U.S. Customs Service

Abstract

Data warehouse applications thrive on pre-summarized data. If a warehouse's data originates on a mainframe computer, it makes sense to take advantage of the mainframe's power to summarize the data before porting it to the warehouse server. The SAS System is the perfect tool to use to summarize data bound for a data warehouse. However, summarizing very large SAS data sets with many CLASS variables can be problematic even on a mainframe computer.

This paper introduces the concept of Horizontal Summarization. Horizontal Summarization is a methodology that can be employed to summarize very large SAS data sets by every combination of a specific set of CLASS variables. Horizontal Summarization is designed to work with the mainframe operating system and avoid common out-of-memory and work-space-shortage abends. Horizontal Summarization was specifically developed and employed as the front-end summarization tool for a data warehouse application.

Michael Raithel, Computer Performance Analyst with the US Customs Service, is a well-known, award winning SUGI speaker and contributor. He is the author of ***Tuning SAS Applications in the MVS Environment***, available from the SAS Institute's Books by Users program.

Questions and Answers

Moderated by DCSUG Officers

Bring your SAS programming or procedure questions to DCSUG and its members. During this open session, you can ask questions of and get answers from experienced SAS users. All are welcomed to participate

If you are not currently a paid member of the DCSUG and are planning to attend the meeting, please call Peter Knapp at 202-482-1359, by June 2 and leave your name. Security at the Bureau of Labor Statistics is very tight and having your name on a list of possible attendees will make your entrance to the building easier.

Desktop Special Interest Group

by David Barnes

DCSUG's Desktop Special Interest Group will meet the evening of July 23rd at Westat, Inc. 1650 Research Blvd. in Rockville at 7:30PM.***Microsoft Access and SAS, ODBC: Working Together***will be presented by David Barnes. If you have any suggestions for future meeting topics, speakers, or alternate locations, or if you'd like to be added to our group's mailing list so you can get announcements of upcoming meeting events, please contact David Barnes at (301) 350-4752 or Yesvy Gustasp at (301) 589-4530. Also, if you need a ride from the Metro, please call either one of us.

Directions to Westat: Take I-270 8 miles from the Capital Beltway to exit #6B - Route 28 (toward Darnestown). Once on 28, go past the traffic light at the Shell station and turn right at the next traffic light, which is Research Blvd. The 1650 building is less than 1/4 mile on the left. You can park in any non-reserved space. Signs will be posted in the lobby to direct you to the meeting room. Westat has many buildings on Research Blvd. so make sure you're at 1650.

SAS Communications, the Institute's quarterly newsmagazine, is available to all SAS sofware users upon request. To receive a free subscription, fill out the subscription form. at the SAS Institute Web site (http://www.sas.com) or, you can call the Mailing List Coordinator at 919-677-8000 and ask for the SAS Institute Subscription Request Form.

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Skipping, The Easy Way

Janet E. Stuelpner, ASG, Inc., Cary, North Carolina

ABSTRACT

The testing has begun. In order to see if the different parts of your SAS(®) program are working, you need to use PROC PRINT or some other procedure to output the data quite often. You practically have one after each DATA step or PROC step. What a pain in the neck it is to pull them all out when your testing is done and the program is perfect. Well, now you don't have to do it. A simple little macro will allow you to leave the source code there.

Another great use for this macro is to comment out many lines of code where documentation is plentiful. Sometimes it is difficult to remove sections of code with standard comments, where there are comments that exist . Read on to find out an easy way to skip over code with %skip.

INTRODUCTION

When I first learned about macros, the best way for me to use them was to put a %macro in front of a section of code and a %mend at the end. Usually, I would define only one parameter and then invoke the macro several times changing the parameter for each invocation. This worked very well. In one job, I could run off reports for many items, whether a particular system, class or investigator. I never thought that this basic premise would work so well in the future. With a slight modification, this action is extremely useful and a tremendous time saver.

The %skip macro is very simple and very useful. It does not need to be defined at the beginning of a job as we do with so many user written macros. It does not need any parameters. It can be defined as many times as you want within the same job. What makes this such a valuable tool is its versatility. There are many ways in which to use it. This paper will explore two of those ways

REASONS TO SKIP

Throughout the process of writing a program, it is necessary to view many of the intermediary data sets that are created in the process of running a job. The easiest way to do this is to print the output. When the program is completed, the printing is no longer necessary. Any procedure that creates output can be used. It is very difficult to do a search, because all of the output that are generated are not created in the same way. This is where %skip can be used. Define the macro and then invoke it. After testing is complete, remove the invocation. Because all of the output procedures have the same macro surrounding it, the search to remove the invocation is easy. The example below shows exactly how it can be done.

```
%macro skip;
PROC PRINT DATA=TESTA;
    TITLE1 'PRINT OF TESTA';
RUN;
%mend skip;
%skip;
        .
        .
        .
Other lines of code
        .
        .
        .
%macro skip;
PROC FREQ DATA=TESTB;
    TABLE MYVAR;
    TITLE1 'FREQUENCY OF MYVAR';
RUN;
%mend skip;
%skip;
```

When testing is complete, the %skip (which is the invocation of the macro) is removed. This can be done in two different ways: removal of the %skip or change it to %*skip. The whole macro can remain in place. You don't necessarily want to remove the whole thing. It may be necessary to test the

program again at some time in the future. This way the code for the output procedure can stay and can be used at any time. All you have to do is add the invocation back into the program.

WAYS OF SKIPPING

A. COMMENTING

There are two ways of writing comments to document a program. The first way is to begin with an asterisk and end with a semi-colon.

```
     *    comment          ;
```

The other way begins with a slash asterisk and ends with an asterisk slash.

```
          /*  comment          */
```

It is this second way that causes the most problems. Some programmers place a comment on each line of code to define what the code is doing. If there are a great deal of comments in the program and then it is necessary to comment out a large block of code, it can be very difficult to do. Since the comment ends with the first asterisk slash it sees, placing a slash asterisk before a block of code may end the code prematurely.

```
DATA AGE;
    SET DEMOG;
    AGEYR=(TODAY()-DOB)/365.25;
/*CALCULATE AGE IN YEARS*/
    AGEGRP=PUT(AGEYR,AGEGP.);
    /*CATEGORIZE AGES*/
RUN;
```

Let's use the above code as an example. If it were necessary to comment out the whole DATA step, the first plan is to place a slash asterisk before the word DATA and then after the RUN. The problem with this is that the comment will end at the first asterisk slash (at the end of the word YEARS) and the next assignment statement will be flagged as an error (statement out of order). This is a good place for %skip. The use of the macro will avoid any error messages.

```
%macro skip;
DATA AGE;
    SET DEMOG;
    AGEYR=(TODAY()-DOB)/365.25;
/*CALCULATE AGE IN YEARS*/
    AGEGRP=PUT(AGEYR,AGEGP.);
    /*CATEGORIZE AGES*/
RUN;
%mend skip;
```

If there is a need in the future to run this section of code, just invoke the macro. Using the macro like this avoids problems with ending a comment too soon and getting error messages.

B. PREVENT STEP FROM RUNNING

A RUN statement will execute any previously entered SAS statements. Typically it is used at the end of DATA steps and/or PROC steps. However, there is a little known option on the RUN statement which terminates the step without executing it. The system will print a message on the log indicating that the step did not run. An example of the use of this option:

```
PROC PRINT DATA=THEDATA;
    TITLE1 'JUST A PRINT';
RUN CANCEL;
```

CONCLUSION

So now you have seen two ways to use a very simple but powerful macro. An extensive background in macro development is not necessary. It is easy to use. It can be defined in the job stream. No parameters are necessary, but can be used if needed. Macros are extremely versatile. As can be seen above, it can be used to conditionally execute output statements or to comment out a block of code.

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Calendar of Meetings and Events

This feature is meant to give users an idea of some of the activities of area users groups and special interest groups, as well as regional and international groups. If your group would like to be regularly included in this feature, please call Mike Rhoads or one of the DCSUG officers. There is a DCSUG directory with phone, fax, and E-mail contact information elsewhere in this newsletter.

June 1997

3 **DCSUG** DC SAS Users Group, General Meeting
Time: 8:30 am - 12:00 noon
Site: Bureau of Labor Statistics
 2 Massachusetts Ave. N.E.
Program: See front page announcement
Contacts:
 Linda Atkinson at (202) 219-0934
  atkinson@econ.ag.gov
 Peter Knapp at (202) 482-1359
  peter_knapp@ita.doc.gov

July 1997

23 **DCSUG** DC SAS Users Group, Desktop SIG
Time: 7:30 pm
Site: Westat
 1650 Research Blvd.
 Rockville MD
Program: TBA
Contact:
 David Barnes at (301) 350-4752
  appalt@gnn.com
 Yesvy Gustasp at (301) 589-4530
  Yesvy.Gustasp@mix.cpcug.org

September 1997

9 **DCSUG** DC SAS Users Group, General Meeting
Time: 8:30 am - 12:00 noon
Site: Bureau of Labor Statistics
 2 Massachusetts Ave. N.E.
Program: TBA
Contacts:
 Linda Atkinson at (202) 219-0934
  atkinson@econ.ag.gov
 Peter Knapp at (202) 482-1359
  peter_knapp@ita.doc.gov

21-23 **SESUG** SouthEast SAS Users Group
 Omni Jacksonville Hotel
 Jacksonville, FL
Contacts:
 Dan Bruns at (423) 751-6430
  spdeb@tva.gov
 Andrew Kuligowski at (813) 738-3000
  x2756 0005949476@mcimail.com

October 1997

5-7 **NESUG** NorthEast SAS Users Group
 Renaissance Harborplace Hotel, Baltimore MD
Contacts:
 Gerry Pauline at (212) 346-1706
  Gerry@Pace.Edu
 Helen-Jean Talbott at (410) 332-3849
  HJTalbott@Worldnet.Att.Net

Other Groups

CENSUG Census SAS Users Group
 Contact: Rick Denby at (301) 763-8174

CONSUG Consultants SAS Users Group
 Contact: Eric Brinsfield at (919) 518-1070
 merecb@interpath.com

MDSUG Maryland SAS Users Group
 Contact: Marjorie Bedinger, (410) 786-5800
 mbedinger@hcfa.gov

NCHSSUG National Center for Health Statistics SAS Users Group
 Contact: Arlene Siller at (301) 436-8522
 abs2@cdc.gov
 or Linda Tompkins at (301) 436-7022

NIHSUG National Institutes of Health SAS Users Group
 Contact: Ray Danner at (301) 496-6037

VASUG Virginia SAS Users Group
 Contact: Peter Rikard at (804) 786-4828

SAS Programmer

Work on projects associated with MCI order processing and fulfillment transactions. Work closely with Mass Markets information technology development, operations, finance, and marketing groups in researching system and process issues from both a business and systems perspective. A BA or BS in Computer Science or Business Administration is desirable. Demonstrated ability to make informed business decisions under limited direction. Strong verbal and written communication skills a must.

Interested candidates may forward their resume in confidence to:

Cheryl Lewandowski
MCI
Dept. 0873-081
601 S. 12th St.
Arlington, VA 22202
(703) 414-9424 (fax)
2133924@mcimail.com (e-mail)

Membership Application/Renewal

Date:_____
Name:_____

Company Name:_____

Mailing Address:_____
_____

City,_____ State, _____ Zip _____

Phone # _____ Fax # _____
E-Mail:_____

Preferred mode of contact (check one):
   ☐ Fax   ☐ e-mail

SAS Version(s) _____
SAS Product(s): _____
Operating System(s) _____
Check one:
   ☐ Individual membership   ☐ Corporate sponsorship
    for 1 year is $10.00   for 1 year is $50.00

Please indicate a contact person for Corporate Sponsorships!
_____
Check one:
☐ New membership   ☐ Renewal membership
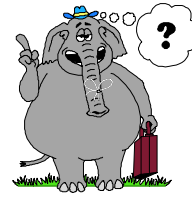
DCSUG Membership Directory

DCSUG is considering publishing a membership directory in 1997, containing members name, work affiliation (name of institution), work telephone number, e-mail address, and any areas of expertise that you would be willing to identify. This directory would be provided to DCSUG members only and would not be given to outside sources. If you would like to be included in such a directory please mark the boxes below, as appropriate.
   ☐ I would like to be included in the membership directory DCSUG is considering publishing. Include my name, work affiliation, and work telephone number.
  ☐ Include my e-mail address as shown on this form.
  ☐ Include the following areas of expertise (up to 2 products, platforms).

_____

Mail to:
Washington DC SAS Users Group
P.O. Box 44670
Washington, DC 20026-4670

Plan ahead and mark your calendars now. The DCSUG will meet on the following dates in 1997: **June 3, September 9, December 2.** Meeting times and locations to be announced. If at any time you have a question about an upcoming meeting or other DCSUG information, call one of the members of the Steering Committee.

to visit the DCSUG home page

The URL for the DCSUG home page on the Web:
http://www.ita.doc.gov/industry/otea/dcsug/

Remember to Join DCSUG!!!

Don't forget to renew your DCSUG membership for 1997. Dues are used to defray the costs of producing and mailing the newsletter and provide refreshments at our meetings. You'll make sure that you keep receiving the newsletter and keep DCSUG going. If you have not joined DCSUG, now is a great time to do so. Joining DCSUG is as easy as completing the membership form included in this newsletter. Individual memberships are only $10; corporate memberships are $50.

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