

DCSUG Newsletter

Washington, DC SAS Users Group

Second Quarter Meeting

When: Tuesday, June 3, 2003
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 - 9:45	Howard Schreier, U.S. Department of Commerce Ask and Ye Shall Receive: Getting the Most from SAS-L
	9:45 - 10:15	John McCue, Congressional Research Service Construction Secrets Learned Building a Government Information Factory (Foundation)
	10:15 - 10:30	User-to User Questions and Answers Moderators - DCSUG officers
	10:30 - 10:45	Break
	10:45 - 11:45	Edward E. Heaton, Westat SAS® System Options Are Your Friends
	11:45 - Noon	Wrapup

***Presentation times subject to change**

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 05/22/03

SAS® is a registered trademark of the SAS Institute, Cary, NC

NOTE: If you are not currently a paid member of the DCSUG and are planning to attend the meeting, please email rhoasm1@westat.com or call (301) 251-4308 by May 28th 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.

President's Message

Peter Knapp

At the end of March I had the pleasure of attending this year's National SAS conference, SUGI, in Seattle. I know some of my colleagues were not able to go, due to the weakened economy and tightened budgets. Fortunately, one of this year's upcoming regional SAS conference, NESUG 2003, will be held closer to home. Our very own Larry Altmayer will be co-chairing NESUG with Ralph Leighton, September 7-10 in Arlington, VA. For those of us who are local, costs associated with attending the conference should go way. I hope you can make NESUG.

Even if you can't make it to NESUG, I hope to see you at the June 3 DCSUG meeting. We have a great lineup - Ed Heaton will be talking about SAS Systems Options, Howard Schreier will be talking about getting the most from SAS-L, and John McCue, will be presenting a paper titled "Construction Secrets Learned Building a Government Information Factory (Foundation)." Working for the Commerce Department, I'm intrigued!

Speaker Abstracts

Ask and Ye Shall Receive: Getting the Most from SAS-L

Howard Schreier, U.S. Dept of Commerce

SAS-L is a worldwide online community of SAS software users. Participants discuss various aspects of SAS and help one another solve SAS-related problems. This talk offers a number of suggestions, primarily directed at those asking questions on SAS-L. Following these suggestions may make questions clearer and easier to analyze, thus increasing the chances that prompt, appropriate, and useful responses will follow.

Howard Schreier serves the U.S. Department of Commerce in an information management role. He has more than 20 years of SAS experience and nearly 15 years of SAS-L experience.

Construction Secrets Learned Building a Government Information Factory (Foundation)

John McCue, Congressional Research Service

If at all possible "apprentice" for someone building a Government Information Factory first and shamelessly use everything they can teach you. But since there are very few Government Information Factories being built right now and few people with such experience using SAS, here are a few of the hidden secrets that I've learned that should be helpful, even if you're not undertaking such a long-term project. This first part will present secrets that were learned while building the Foundation of the Government Information Factory and should help when you want to control storage of data, access to data, and balancing the server load.

Having programmed in SAS since 1985, John McCue has filled a variety of roles relating to SAS including: installation, development of projects, marketing, technical support, and consulting. In 1990 he was editor of the DCSUG Newsletter. He has worked as a consultant to numerous Federal agencies and Healthcare organizations as well as for large Pharmaceutical companies, he worked for SAS Institute for about 6 years, and is currently working with the Congressional Research Service as they build a Government Information Factory to facilitate the capabilities of their analysts.

SAS® System Options Are Your Friends

Edward E. Heaton, Westat

Does SAS always do things the way you want? Have you ever made a simple little mistake of omission with disastrous consequences? Do you find the system log difficult to read and less informative than you need? Do you keep doing the same little tasks over and over because SAS doesn't remember what you want? System options can be your solution to some of these problems! What! You want me to mess with system options? Isn't that a little like playing around with the Windows registry? No, and it isn't hard to pick out the options to make your coding problems simpler. SAS provides a lot of system options. There are about 258 in R8.2 for Windows; another 51 are expected with V9. Their use can be confusing. However, they should not be ignored. This talk will explain a little about their usage in a Windows environment and will present a handful that will make your work easier and less prone to simple mistakes.

Ed Heaton is a Senior Systems Analyst at Westat in Rockville, Maryland. He was introduced to SAS while pursuing his BS in Mathematical Statistics at the University of Missouri and has been programming primarily in SAS for the past 7 years. His SAS experience includes work in the CMS, MVS, and MS Windows environments. Ed has written papers for the Northeast SAS Users Group (NESUG), joint Southeast and South-central SAS Users Group (SSU2001), and the SAS Users Group International (SUGI). He is a regular contributor to the SAS-L list server.

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

SAS Talk

By Ian Whitlock

On SAS-L one finds many requests for a look ahead function. Since there is a LAG function, why isn't there a LEAD function? Let's explore the problem.

The beginner is often trapped into thinking that the LAG function provides values from the last record. While it is true that the examples often use the LAG function for this purpose, it is not true that this is what the LAG function does. The LAG function merely remembers the argument last given to it and returns that previous value when called again. Consider the following DATA step.

```
data _null_ ;
  do x = 1 to 10 ;
    if mod ( x , 2 ) then
      oldx = lag ( x ) ;
      put oldx @ ;
    end ;
  run ;
```

It writes the line

```
. . 1 1 3 3 5 5 7 7
```

on the log. The program has no input so it should be clear that the LAG function has nothing to do with input values per se. Moreover it skips all the even numbers so it cannot be returning the previous value of X. It is returning the previous argument when it was called. Note that we could accomplish the same task without the lag function by adding a second variable to the PDV (Program Data Vector). For example, the following DATA step writes the same line.

```
data _null_ ;
  retain savex . ;
  do x = 1 to 10 ;
    if mod ( x , 2 ) then
      do ;
        oldx = savex ; /* get previous value */
        savex = x ; /* save current value */
      end ;
    put oldx @ ;
  end ;
run ;
```

Thus, in principle, the LAG function does no more than save writing a little code. Now what about the opposite function? Well if the LAG function merely remembers the last argument then the opposite must predict the next argument used and that, of course, cannot be done. Do you know why? However, it does make sense to ask what the value on the next observation is when reading a SAS DATA set, and that is what people who ask for a LEAD function really want.

Let's assume W is a SAS dataset with a variable X equal to the observation number. One common answer is provided by the following DATA step.

```
data q ( keep = x relx ) ;
  set w nobs = nobs ;
  pt = _n_ + 1 ;
  if 1 <= pt <= nobs then
    set w ( keep = x rename = ( x = relx ) ) point = pt ;
  else
    relx = . ;
run ;
```

The key line assigns the value of the point variable PT. By subtracting 1 we have another program to serve the common purpose of the LAG function. It is only good for looking at observations, but trivially generalizes LAGn or the corresponding LEADn.

Often one wants to look one ahead or behind, but within a BY group. To use the LAG function for this purpose consider the following code.

```
data q ;
  set w ;
  by group ;
  lagx = lag ( x ) ;
  if first.group then lagx = . ;

run ;
```

Here is the corresponding look ahead code using the POINT option.

```
data q ( keep = group x nextx ) ;
  set w nobs = nobs ;
  by group ;
  pt = _n_ + 1 ;
  if pt <= nobs and not last.group then
    set w ( keep = x rename = ( x = nextx ) ) point = pt ;
  else
    nextx = . ;

run ;
```

In the last round of discussion on this topic on SAS-L Howard Schreier suggested some SQL code as a solution. Using my data and style here is his solution.

```
proc sql;
  create view v as
  select *, monotonic() as obsnum
  from w
  ;
  create table q as
  select v.group,
         v.x,
         cross.x as lookahead
  from v left join v as cross
  on v.group=cross.group
  and v.obsnum+1=cross.obsnum
  order by v.obsnum
  ;
quit;
```

Around the beginning of this year in a prior discussion of the topic on SAS-L, Roland Rashleigh-Berry suggested similar code using DATA steps in a macro. The advantage of the SQL code is that there is only one OBSNUM is needed, while in the DATA step you need two different versions of OBSNUM for the MERGE BY statement.

DCSUG 2003 Steering Committee Officers

CHAIR -- Peter Knapp

(202) 482-1359 (202) 482-1388(fax)
peter_knapp@ita.doc.gov

SECRETARY -- Paul Gorrell

(301) 628-3237 (301) 628-3201 (fax)
pgorrell@s-3.com

TREASURER -- Arlene Siller

(301) 458-4498 (301) 458-4032 (fax)
asiller@cdc.gov

SAS LIAISON -- Mike Rhoads

(301) 251-4308 (301) 294-2040 (fax)
rhoasm1@westat.com

OTHER COMMITTEE MEMBERS

Larry Altmayer

(301) 763-2569 (301) 457-4437 (fax)
Lawrence.W.Altmayer@census.gov

Karen Dennis

(410) 772-2780 (410) 294-715-2310 (fax)
kdennis@enterprisefoundation.org

Frank Fry

(202) 452-2666 (202) 452-6433 (fax)
frank.fry@frb.gov

Christopher Zogby

(703) 671-6330 (703) 671-6360 (fax)
czogby@erols.com

Linda Atkinson

(202) 694-5046 (202) 694-5718 (fax)
Atkinson@ers.usda.gov

Howard Schreier

(202) 482-4180 (202) 482-4614 (fax)
Howard_Schreier@ita.doc.gov

Roger Goodwin

(301) 763-4774 (301) 457-2744 (fax)
roger.l.goodwin@census.gov

DESKTOP SPECIAL INTEREST GROUP

CO-CHAIR -- Joe Mirabal

(703) 265-4620
jmmirabal@aol.com

CO-CHAIR -- Yesvy Gustasp

(301) 625-9576 (202) 307-5888 (fax)
Yesvy_Gustasp@yahoo.com

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

for 1 year is \$10.00

Corporate sponsorship

for 1 year is \$50.00

Please indicate a contact person for Corporate Sponsorships!

Check one:

New membership

Renewal membership

Mail to:

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



We at DCSUG are proud to announce a new URL for our web site:

<http://dc-sug.org>



DCSUG Desktop Special Interest Group

The next DCSUG Desktop SIG meeting - held jointly with SIGstat is tentatively scheduled for the middle of October, on a Wednesday from 12:30 to 1:30 pm.

Code Portability: SAS Data step in DBMS/Copy - using it as a SAS Work-Alike

by Yesvy Gustasp & Henry Feldman

Many SAS(r) users are familiar with Conceptual Software 's DBMS/COPY, a widely used utility for transferring data between software packages. Conceptual's product lines have been acquired by DataFlux [a subsidy of SAS Institute]. DBMS/Copy includes DBMS/Analyst, a database manipulation and programming system. The modules of DBMS/Analyst provide functionality resembling that of base SAS software (including the DATA step). The presentation will look at the feasibility of deploying DBMS/Analyst as a complement to SAS, including interoperability issues and the porting of applications. The emphasis will be on code (SAS DATA step programs as well as statements invoking the SAS SORT, MEANS, TABULATE and other summarization procedures).

Users can submit code they would like to be translated (along with a miniature version of the data set); provided it is good for illustration in the presentation, to Yesvy_Gustasp@Yahoo.com

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

3 **DCSUG** DC SAS Users Group, General Meeting
Time: 8:30 am - 12:00 noon
Site: Bureau of Labor Statistics
2 Massachusetts Ave. NE
Program: See front page announcement
Contacts: Mike Rhoads at (301) 251-4308
RhoadsM1@Westat.com
Peter Knapp at (202) 482-1359
peter_knapp@ita.doc.gov

Other Groups

CENSUG Census SAS Users Group
Contact: Andrea Potter at (301) 457-1687

MDSUG Maryland SAS Users Group
Contact: Mr. R.H. Miller, (410) 740-4229
millerh@juno.com
www.umbc.edu/chpdm/mdsug/

NCHSSUG National Center for Health Statistics
SAS Users Group
Contacts: Arlene Siller at (301) 458-4498
asiller@cdc.gov
Linda Tompkins at (301) 458-4533

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

NOVASUG Northern Virginia SAS Users Group
Contact: Gary McQuown at (703) 628-5681
gmcquown@dasconsultants.com
www.novasug.org

SIGSTAT Special Interest Group in Statistics,
CPCUG and WINFORMS
Contact: Charlie Hallahan, 202-694-5051
hallahan@ers.usda.gov

September

7-10 **NESUG 2003** NorthEast SAS Users Group Conference
Site: Arlington VA (Crystal Gateway Marriott)
Co-Chairs: Larry Altmayer, Ralph Leighton
Further Info: www.nesug.org

22-24 **SESUG '03** SouthEast SAS Users Group Conference
Site: St. Pete Beach FL
Co-Chairs: Steve Noga, Gary Schlegelmilch
Further Info: www.sesug.org

30 **DCSUG** DC SAS Users Group, General Meeting
Time: 8:30 am - 12:00 noon
Site: TBA
Program: TBA

VASUG Virginia SAS Users Group (Richmond area)
Contact: Mark Jordan at president@vasug.org
www.vasug.org



The next NESUG Conference will be held Sept. 7 through Sept. 10 in the Washington, DC locale. The NESUG 2003 Conference hotel will be the Crystal Gateway Marriott across the Potomac in Arlington. The location of the conference hotel permits easy access to the mall area in DC (where the museums are): only four stops on the DC Metro. Bring your family!

Highlights of the Conference will include the NESUG (SAS) Exhibit and Demo Room, presentations by SAS and by fellow SAS users, pre-conference training, the opportunity to meet and mingle with fellow SAS users, and special events, such as the attendee party and a Washington DC area tour.

The core of the conference are the presentations, by SAS technical staff and by a host of fellow SAS users: six tracks spanning two and a half days, from the ever popular Beginning and Advanced Tutorials, to Statistics and Econometrics, SAS Applications and the Emerging Technologies section.

Registration Opens on the Web May 15th

For more information, contact one of your NESUG 2003 Conference Co-chairs:

Larry Altmayer
(301) 763-2569
lawrence.w.altmayer@census.gov

Ralph Leighton
(860) 547-3014
rleighton@thehartford.com

11th Annual Conference of the SouthEast SAS Users Group



September 22-24, 2003

**Trade Winds Island
Grand Resort**

St. Pete Beach, FL

visit www.sesug.org for more information

Co-chairs

Steve Noga – snoga@rhoworld.com

Gary Schlegelmilch – sesug03@juno.com

2003 Meetings

Plan ahead and mark your calendars now. The DCSUG meetings in 2003 are scheduled for June 3, Sept 30, Dec 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.

~~You're~~
~~invited~~
~~You're~~
~~invited~~

To visit the DCSUG home page

***The URL for the DCSUG home page on the
Web:***
<http://dc-sug.org>

Remember to Join DCSUG!!!



Don't forget to renew your DCSUG membership for 2003. 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