

# DCSUG Newsletter

Washington, DC SAS Users Group

## Second Quarter Meeting

When: Tuesday, June 2, 1998  
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	Neil Howard <b>PROC FIXMYPROGRAM</b>
	10:15 - 10:30	User-to User Questions and Answers Moderators - DCSUG officers
	10:30 - 10:45	Break
	10:45 - 11:45	Greg Barnes Nelson, ASG, Inc. <b>SAS Skills for the next Millennium</b>
	11:45 - noon	Neil Howard. <b>Quiz</b> <b>Prizes</b> - from SUGI 23 and SAS Institute

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 5/27/98

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### President's Message

Peter Knapp

Have you ever wanted to present a paper at a regional or national conference and felt intimidated by the prospect of speaking to a large crowd? Two years ago I presented my first paper at NESUG '96. The presentation went reasonably well, especially considering I had never done anything like this before. I was very nervous though. After NESUG, I presented the paper at DCSUG, and was much happier with the results. I think the main reason for this is that the DCSUG audience was smaller and more accessible. I felt more comfortable presenting my paper to a group of friendly supportive people.

This year I will be presenting my second paper at NESUG '98. I hope to present my paper first at an upcoming DCSUG meeting to help me get ready for NESUG. If you are thinking about presenting a paper at a conference, I strongly recommend that you take advantage of the wonderful resource that is DCSUG and present the paper at a local meeting. Speaking of meetings, I hope you will attend our next one on June 2 where our featured speakers will be Neil Howard and Greg Barnes Nelson. It will be a treat to listen to these two enjoyable speakers. With luck I'll learn a thing or two about improving my upcoming presentation!

## Speaker Abstracts

### PROC FIXMYPROGRAM

Neil Howard

Abstract

The comment "you don't have to test SAS programs!!!" has ejected many a candidate from an interview and many a programmer out the door. SAS Software does a lot for you, but it can't replace your ability to think logically and use the language effectively and efficiently. Data are seldom clean, logic sometimes misses the mark, fingers walk clumsily over keyboards, and condition codes are not an accurate indicator of correct code.

The SAS system offers a wide variety of features for dealing with syntax, logic, and data errors to KEEPYOURJOB. Discover tips and techniques for leveraging these features and validating the output of your programs. Reduce your stress, get a bigger raise, create productive teams, satisfy your clients. There is no PROC TESTMYCODE or PROC READMYMIND, but these tools can help you produce quality programs that are reliable, maintainable and accurate.

### Quiz

Neil Howard

Test your DATA step fluency with a simple quiz. Prizes for all winners -- courtesy of SUGI 23 and SAS Institute.

*Neil Howard has given many presentations at local, regional, and national SAS user group meetings. She is a past SUGI Conference Chair. In the 1980's, Neil was chair of DCSUG.*



## SAS Skills for the next Millennium

Greg Barnes Nelson, ASG, Inc

Abstract

This is a humorous look at what skills will be required from SAS programmers in the year 2000 and beyond. It is a compendium of quotes and commentary for SAS programmers (or anyone for that matter!) to think about that helps you focus on what skills will be in demand. Most of the presentation is centered around non-technology specific concepts, although there is some discussion about specific SAS skills we think employers, clients and partners will seek.

*Greg is the Director of Technology Solutions at ASG, Inc. A psychologist by training, Greg is a technologist at heart. His current area of expertise includes designing complex data management systems, user interface modules, and data warehousing design (both business process and data modeling) and implementation (e.g., distributed architecture and front-end development). He works with clients and project teams to implement customized solutions with emphasis on SAS applications development, data analysis, research design, program evaluation, needs assessment, project management, database management and scientific visualization and graphics.*

## 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 **Email** Larry Altmayer at [laltmayer@census.gov](mailto:laltmayer@census.gov) or call 301-457-3859 by May 27th 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.

# Simple PERL for Dynamic Web Publishing

by Michael Yu

With SAS Web Publishing Tool, PERL, and public domain CGI.pm modules, we can achieve dynamic web publishing. Follow these simple steps and you can be up and running in less than thirty minutes.

**Step 1** Modify this CGI program's parameters,

```
## If Windows, set 1; UNIX, set 0.
$OS_WIN= 1; ## For Windows 95 or NT, set 1.
# Directory for SAS to use for temporary files
$HOME= 'd:\sas612\saswork';
# Configuration file containing libref & directory
name pairs
$CONF= 'd:\inetpub\scripts\new-sas-perl.cfg';
# The full path name of the SAS System.
$SAS_EXE= 'd:\sas612\sas.exe';
# SAS options
$OPTIONS= "";
# End Of User Modification
```

Store this changed CGI program, win-new-sas.pl, on your web server machine's cgi-bin directory.

**Step 2** Per \$CONF value previously specified, create that file with sample contents, such as SAS-libref1!directory-name-1 SAS-libref2!directory-name-2

*Note the exclamation mark, !, as separator between SAS libref and directory name.*

**Step 3** Write SAS program files and place them in your directory, say directory-name-1, A text output sample, call it text-1.sas

```
Libname my_data '...';
      %ds2htm( data= my_data.fitness
, runmode= b, href= _webout );
```

A SAS graph sample, call it graph-2.sas

```
Libname my_data '...';
Options device= gif gsfname= _webout;
Proc gplot data= my_data;
  Plot weight * oxygen;
```

**Step 4** On your web browser's command line, type [http://your-web-server/cgi-bin/win-new-sas.pl?\\_PROGRAM=SAS-libref1.text-1.sas](http://your-web-server/cgi-bin/win-new-sas.pl?_PROGRAM=SAS-libref1.text-1.sas)

[http://your-web-server/cgi-bin/win-new-sas.pl?\\_PROGRAM=SAS-libref2.graph-2.sas&\\_GRAFICS=yes](http://your-web-server/cgi-bin/win-new-sas.pl?_PROGRAM=SAS-libref2.graph-2.sas&_GRAFICS=yes)

To try out CGI and SAS programs Specify `_GRAFICS=Y` if program will generate graphics output. Specify `_DEBUG=Y` to see the SAS log.

**Step 5** Prepare web pages enabling user to choose parameters and returning desired output.

Here's a skeletal web page

```
<form action="/cgi-bin/win-new-sas.pl" method=get>
```

```
<INPUT TYPE="hidden" NAME="_GRAFICS"
VALUE="y">
```

Choose groups you like to see statistics on<br>

```
<select name=group multiple>
<option selected value=1>1<br>
<option value=2>2<br>
<option value=3>3<br>
</select>
<input type=submit value='Show'>
```

```
<INPUT TYPE="hidden" NAME="_PROGRAM"
VALUE="SAS-libref1.graph-2.sas">
</form>
```

And the corresponding SAS program,

```
%macro t_graph;

options device= gif gsfname= _webout;

libname my_data 'à';

proc gplot data= my_data.fitness

%global group;
%if &group = %then %do;
  %** put NONE specified;
%end;
%else %do;
  ( where = ( group = &group1
%do i= 1 %to %superq( group0 );
    or group = "&&group&i"
%end;
  ))
%end;
;
plot weight * oxygen = group;
quit;
%mend t_graph;

%t_graph;
```

Credits:

A) This article is a natural extension of the idea expressed in

"SAS SOFTWARE AND THE WEB: CREATING A COMMON GATEWAY INTERFACE' by David Shinn and John Hansen, Observation, First quarter 1997, p. 62-66.

B) The CGI.pm module is by Lincoln D. Stein, and the most recent version and document are available at:  
[http://www.genome.wi.mit.edu/ftp/pub/software/WWW/cgi\\_docs.html](http://www.genome.wi.mit.edu/ftp/pub/software/WWW/cgi_docs.html)

C) To get PERL for Windows, visit <http://www.ActiveState.com>

D) To get PERL for UNIX, visit <http://www.perl.com>

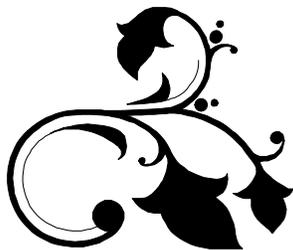
**For a copy of the actual Perl program, please contact:**

Michael Yu at 202-260-5312

Email: [yu.michael@epamail.epa.gov](mailto:yu.michael@epamail.epa.gov) (W)

[vhyu@erols.com](mailto:vhyu@erols.com) (H)

*Hsiwei Yu (Michael) works for Northrop Grumman Corporation, on site at Environmental Protection Agency in downtown Washington, D.C. Previously with Legent and SAS, Michael has been a SAS programmers since '87. His current assignment is to analyze EPA's corporate data and implement user-friendly dynamic queries on the Internet.*



**DCSUG 1998 Steering Committee OFFICERS**

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(301) 436-8522 x188 (301) 436-5452 (fax)  
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(202) 694-5046 (202) 694-5718 (fax)  
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**Douglas McAllaster**

(703) 697-7619  
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**DESKTOP SPECIAL INTEREST GROUP**

**CHAIR -- David Barnes**

(301) 350-4752 (301) 350-4785 (fax)  
[appalt@aol.com](mailto:appalt@aol.com)

**VICE-CHAIR -- Yesvy Gustasp**

(301) 589-4530 (202) 633-2668 (fax)  
[Yesvy.Gustasp@mix.cpcug.org](mailto:Yesvy.Gustasp@mix.cpcug.org)

## 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

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

# SAS Opportunities

**\* SAS Programming**

**\* Biostatistics**

**\* Marketing Science**

**\* Database Management**

**\* Direct Market Modeling**

**\* Promotion Response Modeling**

***For local and nationwide positions call, fax or  
e-mail your resume and criteria to:***

**M.T. Ray  
256 Post Road East  
Westport, CT 06880**

**\* T 203 221-8939  
\* F 203 221-8938  
\* mtray@smihan.com**

**Offices in: New York\*Chicago\*Connecticut\*Philadelphia\*Atlanta**

# SMITH HANLEY

# SAS Talk

By Ian Whitlock

Let's look at a look-up problem with one SAS data set, PERS obtained from survey data by interviewing families. PERS holds one record per person.

<u>OBS</u>	<u>FAMID</u>	<u>PERSEQ</u>	<u>AGE</u>	<u>SEX</u>	<u>PARENT</u>
1	0000100175	01	27	2	00
2	0000100175	02	2	1	01
3	0000100175	03	29	1	00
4	0000136695	01	49	1	00
5	0000136695	02	53	2	00
6	0000136695	03	21	1	01
7	0000136695	04	19	2	01
8	0000136695	05	15	1	01
9	0000136695	09	23	2	01
10	0000136695	10	4	2	09
11	0000136695	11	1	1	09
12	0000136695	06	24	2	01
13	0000136695	07	8	2	06
14	0000136695	08	7	2	06

...

The field, PARENT, is '00' when there is no parent and the value of the field, PERSEQ, for the identified parent when there is one. The problem is to create a file of children containing the parent's age and sex. For example, in family '0000100175' the 3 year old identified by PERSEQ = '02' has parent '01'; with age 27. For the above data, we want to obtain:

<u>OBS</u>	<u>FAMID</u>	<u>CHILDSEQ</u>	<u>CHILDAGE</u>	<u>CHILDSEX</u>	<u>PARSEQ</u>	<u>PAR AGE</u>	<u>PAR SEX</u>
1	0000100125	02	2	1	01	27	2
2	0000136605	03	21	1	01	49	1
3	0000136605	04	19	2	01	49	1
4	0000136605	05	15	1	01	49	1
5	0000136605	06	24	2	01	49	1
6	0000136605	07	8	2	06	24	2
7	0000136605	08	7	2	06	24	2
8	0000136605	09	23	2	01	49	1
9	0000136605	10	4	2	09	23	2
10	0000136605	11	1	1	09	23	2

...

Three possible solutions come to mind.

Separate parents and children, sort and then merge.

Index the file and read it twice in one step.

Do a reflexive join with PROC SQL.

I abandoned the first method because a child can also be a parent and nothing on that child's record indicates this. Actually, it isn't necessary to separate children and parents, but it is necessary to have the file sorted two different ways. My real interest lay in comparing the complexity of code and the execution times of the other two methods.

Here is a solution for the index method. It illustrates indexing and using two buffers to read the same data set in one step two different ways. Note the difficulty in disentangling the variable names.

```

proc datasets lib = work ;
  modify pers ;
  index create key = ( famid perseq ) ;
quit ;

data child ( keep = famid childseq childage childsex
             perseq par_age par_sex
             rename = ( perseq = parseq ) )
noparent ( keep = famid childseq childage childsex
           perseq
           rename = ( perseq = parseq ) )
;
set pers ( keep = famid perseq age sex parent
          rename = ( perseq = childseq parent = perseq
                   age = childage sex = childsex ) );
if perseq ^= '00' ;

set pers ( keep = famid perseq age sex
          rename = ( age = par_age sex = par_sex ) )
  key = key / unique ;
if _iorc_ then
do ;
  _error_ = 0 ;
  output noparent ;
end ;
else
  output child ;
run ;

```

On the other hand, the SQL code aids in disentangling the names, and hence is much simpler. Here is the code:

```

proc sql ;
  create table child2 as
  select c.famid ,
         c.perseq as childseq ,
         c.age as childage ,
         c.sex as childsex ,
         p.perseq ,
         p.age as par_age ,
         p.sex as par_sex
  from pers ( where = ( parent ^= '00' ) ) as c
  left join
  pers as p
  on c.famid = p.famid
  and c.parent = p.perseq
;
quit ;

```

CHILD2 has both children with and without parents, but it is a trivial step to separate them if necessary.

I tested times on 140,000 records (100,000 children). It took approximately 7 seconds to index the file and 8 seconds to do the DATA step. The SQL code took a little longer to execute, almost 19 seconds, but it made no difference whether the data was indexed or not. Since the differences are trivial, one should choose on code preferences.

## 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*

2 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) 694-5046  
atkinson@econ.ag.gov  
Peter Knapp at (202) 482-1359  
peter\_knapp@ita.doc.gov

### *September*

15 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) 694-5046  
atkinson@econ.ag.gov  
Peter Knapp at (202) 482-1359  
peter\_knapp@ita.doc.gov

13-15 SESUG SouthEast SAS Users Group  
Annual Conference  
Site: Omni Waterside Hotel  
Norfolk VA  
Contacts:  
Joe Kelley at (706) 542-5359  
jkelley@arches.uga.edu  
Randy Finch at (205) 386-2197  
rcfinch@tva.gov

### *October*

4-6 NESUG NorthEast SAS Users Group  
Annual Conference  
Site: DoubleTree Hotel  
Pittsburgh PA  
Contacts:  
Irene Mendelson at (973) 235-4334  
irene.mendelson@roche.com  
Paula Podolnick at (973) 540-7195  
podolnp@pd.mops.wl.com

28 DCSUG Desktop SIG Meeting  
Time: 7:30 P.M.  
Site: TBA  
Program: TBA  
Contacts:  
David Barnes at (301) 350-4752  
appalt@aol.com  
Yesvy Gustasp at (301) 589-4530  
Yesvy.Gustasp@mix.cpcug.org

### Other Groups

CENSUG Census SAS Users Group  
Contact: Rick Denby at (301) 763-8174  
MDSUG Maryland SAS Users Group  
Contact: Mr. R.H. Miller, (410) 740-4229  
refa09a@prodigy.com

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

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



## Financial Analyst and Systems Development Specialist

The **Office of Thrift Supervision** a bureau of the U.S. Department of the Treasury and the nation's thrift institution regulator, **has two openings in its Industry Analysis Division.**

**Financial Analyst-** You will provide analysis, financial data, and reports on the financial condition and performance of thrift institutions and their competitors. We require excellent analytical and quantitative skills. You must be able to clearly write and present analyses to senior management and staff.

**Systems Development Specialist** You will analyze, design, build and manage financial reporting systems. We require excellent analytical, quantitative and programming skills to evaluate information needs and solve technical problems.

Both positions require:

1. Experience using SAS software or similar statistical language.
2. Excellent PC skills and knowledge of Microsoft Office software is desirable.
3. Strong written and oral communications skills to present technical information.
4. A degree in finance, computer/information science, economics or statistics and 2 years directly related experience. An advance degree in related area is preferred.

For consideration, address the requirements in your resume (with salary history), Applications for Federal Employment (SF-171), or Optional Applications for Federal Employee (OF-612) to:

Office of Thrift Supervision  
Attn: Dee August  
1700 G St. NW  
Washington DC 20552

For additional information, call (202) 906-6061, or visit our website at [www.ots.treas.gov](http://www.ots.treas.gov).

We are an equal opportunity employer.

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### ***Desktop Special Interest Group***

by David Barnes

DCSUG's Desktop Special Interest Group will meet in the Fall (Date to be announced) at Westat, Inc. 1650 Research Blvd. in Rockville at 7:30PM. 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.

## 1998 Meetings



**Remember to Join DCSUG!!!**

**You're Invited**

**to visit the DCSUG  
home page**

*The URL for the DCSUG home page on the Web:*

*<http://www.ita.doc.gov/industry/otea/dcsug/>*

Don't forget to renew your DCSUG membership for 1998. 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.

Washington DC SAS Users Group

P.O. Box 44670

Washington, DC 20026-4670