



HARTFORD AREA SAS® USERS GROUP

Volume 22 Issue 2

Second Quarter, May 2010

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<http://www.hasug.org>

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Chairperson's Notes (Karol Katz, Yale University)

A few days prior to our February HASUG meeting, the weather prediction was not promising at all. I seriously considered canceling our meeting. However, on Tuesday evening the New Haven forecast was changed to rain and I breathed a big sigh of relief. On Wednesday our Philadelphia speaker arrived by train and we went ahead with our meeting. We had a very good attendance, an excellent program and a successful meeting. For those who were unable to attend, the speakers' presentations are posted on www.hasug.org. Please click on HASUG newsletters.

At our May meeting we will hold our annual raffle. Funds raised go to maintain our website. Buy a few tickets and you may go home with a SAS book or another great prize. Since HASUG does not charge annual dues, a successful raffle helps us to keep the "No Dues" policy.

SAS Press has provided a special discount for books purchased within a few weeks of our May Meeting. Special forms offering a 20% discount on all SAS Press books will be available at the meeting. Take the form, review their online catalogue, and save 20%. This special discount is valid for the month of May.

May is also the time we invite members to get more involved with planning HASUG meetings. We need help locating meeting sites throughout Connecticut and also interesting SAS presenters. If you have attended several HASUG meetings and would like to take

a more active role please join our steering committee. We meet four times a year, immediately after our quarterly meetings, and also have four conference calls between meetings.

FEBRUARY MEETING HIGHLIGHTS

(Kathleen Alber, Service National Corp.)

HASUG's first quarterly meeting for 2010 took place at Yale University in New Haven on February 25. Speakers Frank DiIorio of CodeCrafters, Inc. and Paulette Staum of Paul Waldron Consulting provided valuable insight into the effective use of tools and techniques designed to reduce the necessity for repetitive code in SAS programs.

Frank DiIorio started us off with his presentation, 'Building the Better Macro: Best Practices for the Design of Reliable, Effective Tools'. He offered some helpful guidelines for building reliable, understandable, and maintainable macros. Several keys to good design were discussed including clear documentation, effective and consistent keyword utilization, the use of consistent program structure, appropriate macro messaging, and control of variable scope, among others. Specific examples were provided clearly demonstrating the necessity for each guideline and illustrating a suggested implementation.

Of course, sometimes a macro is not the proper tool to accomplish a programming task. Paulette Staum's presentation, 'Leverage Your Programming with Code Generation' explored some alternatives.

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Rather than producing the same code in multiple locations, she explained how SAS code could be written to a text file and then included in a program for execution using the %INCLUDE statement. Also presented was the CALL EXECUTE DATA step function which, like %INCLUDE, can be used to cause the execution of SAS statements within a DATA step. Unlike %INCLUDE however, this function utilizes the input stack, eliminating the need to create and eventually delete separate files. Tasks particularly well accomplished by CALL EXECUTE were explored. A discussion of when and why you'd choose these options instead of or in conjunction with a macro followed clarifying how they differ and illustrating why all these are valuable tools to have in our SAS programmers' toolbox.

Both of these presentations can be reviewed on the HASUG website.

CALENDAR OF EVENTS

Future General Meetings and Conferences:

May 14, 2010
Bristol-Myers Squibb, Wallingford, CT
May 23-26
PharmaSUG, Orlando, FL
August 12, 2010
eClinical Solutions, New London, CT

HASUG Steering Committee Meetings:

May 14, 2010
Immediately after HASUG meeting
June 17, 2009
Conference call 11:30-12:30
August 12, 2010
Immediately after HASUG meeting

NEXT HASUG MEETING ANNOUNCEMENT

Our next meeting is on:
FRIDAY, May 14, 2010
at
**Bristol-Myers Squibb
5 Research Parkway
Wallingford, CT 06492**

from 9:00 am to noon

*Registration will be open until noon on Thursday, May 13th.
Refreshments to be served, & time for conversation, beginning at 8:30.
Annual Raffle ~ SAS books, trinkets and more!*

Our topics and Speakers are:

**“Data Integration for Clinical Data”
Janet Stuelpner, SAS Institute**

For those of us who work with clinical trials data, we know there are some differences between our data and data from other industries. In the last several years, along with the idiosyncrasies of this data, the industry is moving toward standardization of the data that is used for new drug application submission to regulatory authorities all over the world as well as analysis and reporting. This presentation is based on the SAS® ETL tool that was enhanced to be used with clinical data. We will explore SAS Clinical Data Integration in its current form and talk about some of the new features of the next release.

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Janet Stuelpner has provided programming support in the areas of clinical trials, outcomes research and the financial industry. She has been a participant in many user groups on all levels as a speaker and section chair and was the chairperson for HASUG. She has joined SAS Institute as a Solutions Architect in the Health and Life Sciences Solutions group and specializes in Data Integration and Data Quality.

“Development on a Dime: Creating Your SAS Programming Environment”

Michael Davis, Health Market Science

When the author joined HMS, the use of SAS software was new to his organization. Given a preference for software development tools that were inexpensive and open-source, the author assembled a SAS development environment to make program creation and data analysis easier and faster. Key elements of this environment include:

1. Notepad++ Editor, configured to color-code key SAS words
2. library of frequently used program templates, routines and lookup tables
3. departmental Autoexec.sas program and Autocall macro library

Batch processing is the author's favorite mode of executing substantial SAS programs so he modified his MS Windows desktop mode so the development environment was adjusted to make it easier to create new SAS programs.

Last year, SAS was also licensed and installed on a Linux server. Thus, the development environment was updated

to run under Windows or Linux without alteration.

Michael Davis is a Senior SAS Analyst for Health Market Science in King of Prussia. He undertakes programming and statistical analysis in support of product development. He previously worked for Aetna, Blue Cross & Blue Shield of Connecticut and the Connecticut Hospital Association. Michael has been a SAS user since 1985 and previously specialized in developing decision support, data warehousing and web-based systems with SAS software. He has frequently presented papers at SUGI/SGF, NESUG, and local SAS user groups. Michael holds a Masters in Health Administration from Duke University.

Continuing With Education...

(Peter Prause)

The SAS Institute Regional Training Center in Glastonbury, CT is offering the following courses.

Course information for these courses and many other non-local courses is available on the Internet at the support.sas.com web site. To register for a course or to get more information, phone SAS Institute at 1-800-333-7660.

SAS Report Writing 1: Using Procedures and ODS	Mar 10 - 12
SAS Programming 1: Essentials	Mar 15 - 17
SAS Programming 2: Data Manipulation Techniques	Mar 31 - Apr 02
SAS Programming 3: Advanced Techniques and Efficiencies	Apr 07 - 09
SAS Macro Language 1: Essentials	Apr 15 - 16

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SAS Programming 1: Essentials	May 12 - 14
SAS Macro Language 2: Developing Macro Applications	May 24 - 25
SAS Enterprise Guide 1: Querying and Reporting	Jun 03 - 04
SAS Programming 2: Data Manipulation Techniques	Jun 09 - 11
SAS SQL 1: Essentials	Jun 17 - 18
SAS Programming 1: Essentials	Jul 21 - 23
SAS Programming 2: Data Manipulation Techniques	Aug 23 - 25
SAS Report Writing 1: Using Procedures and ODS	Sep 08 - 10
SAS Programming 1: Essentials	Sep 20 - 22
SAS Programming 2: Data Manipulation Techniques	Sep 29 - Oct 01
SAS Programming 3: Advanced Techniques and Efficiencies.	Oct 06 - 08
SAS Macro Language 1: Essentials	Oct 14 - 15
SAS Programming 1: Essentials	Nov 08 - 10
SAS Macro Language 2: Developing Macro Applications	Nov 18 - 19
SAS Enterprise Guide 1: Querying and Reporting	Dec 02 - 03
SAS Programming 2: Data Manipulation Techniques.	Dec 08 - 10
SAS SQL 1: Essentials	Dec 16 - 17

When time and distance are an issue, SAS Institute offers Live Web classes and self-paced e-learning to help you get the training you need while accommodating your busy schedule. Call for more details.

Destiny Corporation is offering Instructor Assisted Virtual SAS training courses in their Rocky Hill, CT office. A live instructor, in person, will support and answer all questions. The attendees are provided the supporting Online Virtual Course and materials. The Online Course is valid for one year from course dates.

Please visit the Destiny Corporation website for more training dates. To register for a course or to get more information, contact Destiny at 1-800-7-TRAINING or at www.destinycorp.com.

Destiny Course Schedule: All courses are offered on the following dates in 2010: June 01 - 03 and on Sep 13 - 15.

2-day courses

Introduction to Programming Using SAS Software
Programming III: Advanced Techniques
Output Delivery System (ODS) Basics
SAS Version 9 Changes and Enhancements
Enterprise Guide Querying and Reporting
SQL Processing in SAS Software

3-day courses

Programming I: SAS Essentials
Programming II: Data Manipulation
Using the Data Step
Report Writing: A Programming Approach in SAS Software
Macros in SAS Software

Tips & Techniques

(Charles Patridge, ISO Innovative Analytics)

Tips from, “SASCOMMUNITY.org”.
Many of these tips have links to read more. Please use the URL.

http://www.sascommunity.org/wiki/Tip_of_the_Day:August_4

While PROC EXPORT can not create a CSV file without column headers directly, there are at least half a dozen ways to create a CSV file without column headers using any or all of PROC EXPORT combined with a DATA steps, just a DATA step, ODS and the DS2CSV macro.

http://www.sascommunity.org/wiki/Tip_of_the_Day:June_24

Don't forget the Tip Sheets that have become popular handouts at SAS Global Forum as well as many User Groups Topics include ODS, the DATA Step Hash Object and Regular Expressions. There is also a listing of all the Base SAS Tip Sheets.

http://www.sascommunity.org/wiki/Tip_of_the_Day:June_9

An Excel named-range (or spreadsheet) can easily be deleted by SAS and written over using the Excel LIBNAME engine. The tricky parts are that the SCAN_TEXT=NO option is needed and the target should be rewritten to before the LIBNAME connection is closed.

http://www.sascommunity.org/wiki/Tip_of_the_Day:May_30

In the Enhanced Editor it is possible to generate a standard block of code or text

using a simple abbreviation. Similar to the complete-the-text feature found in MSWord and other word processors, these abbreviations are easy to create. While in the Editor go to <tools> => <add abbreviation>.

http://www.sascommunity.org/wiki/Tip_of_the_Day:May_29

You can use regular expressions to test/validate the format of ICD-9 diagnosis codes. For example:

```
data probably_good_codes(drop =
match_loc) obviously_bad_codes ;
  retain rgx_handle ;
  set my_dataset ;
  if _n_ = 1 then do ;
    rgx_handle =
prxparse("/^(V\d{2}(\.\d)?|\d{3}(\.\d{1,2}
)?|E\d{3}(\.\d)?)");
  end ;
  match_loc = prxmatch(rgx_handle,
dx) ;
  if match_loc = 1 then output
probably_good_codes ;

  else output obviously_bad_codes ;
run ;
```

View the read more link for details about the PRX logic.

Book Review

Karol Katz, Yale University

Title: *Common Statistical Methods for Clinical Research with SAS(R) Examples, Third Edition*

Author: Glenn A. Walker and Jack Shostak

Publisher: Morgan Kaufmann

Publishers

ISBN: 978-1-60764-228-2

Pages: 552 pages

Price: \$79.95

Copyright: 2010

Common Statistical Methods for Clinical Research with SAS Examples offers users familiar with statistics the SAS/Stat procedure code and options available to perform their analyses using SAS. For experienced Base SAS users, who want to learn which SAS/STAT procedure is the most appropriate for their data, this book offers an excellent statistics tutorial.

Chapter by chapter, this book leads you through statistical procedures in clinical trial analyses, from basic descriptive stats and hypothesis testing to more complex multivariate and survival analysis. Each chapter begins with a definition and notation of a statistical test and a numerical example illustrating its use. The SAS program code and resulting output follow.

Numbered lines in the output match key paragraphs in the text and provide detailed explanations of the steps in the SAS procedure. You can gain experience by creating the sample dataset, completing the exercises listed and comparing your results to the appropriate results provided.

HASUG EMAIL DISTRIBUTION LIST

This service is provided free of charge to all who wish to subscribe to the email notification process. In order to sign up for this service, you need to point your browser to the HASUG web site, <http://www.hasug.org>, and click the hyperlink, "Join HASUG Email List".

Your name and email address are not displayed nor given out to any party, including members of the HASUG steering committee. Only the list administrators have access to subscription information. Only List administrators will be able to send out email messages to the HASUG members. If you should change your email address under which you subscribed, you will need to unsubscribe with your old email address, and then re-subscribe using your new email address. Typically, a notice is sent approximately 3 weeks before meetings, as well as a couple of days beforehand to remind people of the date, time, and location.

To subscribe to the HASUG list you will need to follow the following steps:

1. From the HASUG website pick "Join HASUG Email List". Enter your email address and click on the SUBSCRIBE button. You will receive an email from oreply@googlegroups.com.
2. Open the email and click on the confirmation URL in the email.
3. There are no questions to answer. Just click on "Apply to this Group" .
4. You will receive an email saying you have been added to the distribution list. You must complete steps 1-3 to be added to the list.

THE HASUG RECRUITING POLICY

HASUG's primary mission is to provide a forum for SAS professionals to meet and share experiences. HASUG also recognizes that searching for new employment opportunities is a normal activity when professionals meet. Since we depend on our respective employers to support HASUG by providing time for members to attend, prepare presentations, and provide meeting facilities, we do not wish to jeopardize those relationships we have all nurtured.

Therefore, when attending any of our quarterly meetings, we request that all parties engaged in recruiting activities be "professional and discreet", and suggest that such activities be carried outside and after our meetings. Those seeking or offering positions may display materials at a location designated by HASUG at each quarterly meeting. The materials may include resumes, job openings, contract opportunities, business cards, etc. None of the materials may include salary information. All such materials left after the meeting will be discarded. Violators of this policy may be asked to leave the meeting.

THE HASUG SPONSORSHIP POLICY

All parties are encouraged and welcome to attend our quarterly HASUG meetings scheduled during the months of February, May, August, and November of each year. Usually these meetings are scheduled the 3rd Thursday from 9:00 am to noon at various locations throughout Connecticut. Past locations have included Hartford, Meriden, Middletown, Norwalk, Glastonbury, Stamford and New Haven. We are always looking for new hosts within the state of Connecticut. If you feel your organization can host a meeting of up to 70 or so people, please contact one of the Steering committee members.

HASUG Steering Committee

<u>Name</u>	<u>Organization</u>	<u>Telephone</u>	<u>E-Mail</u>
Kathleen Alber	Service National Corp	(203) 315-4312	kalber@1fbusa.com
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Gerald Zuckier	Aetna	(860) 273-2841	GZuckier@alum.mit.edu

Directions to Bristol-Myers Squibb Company:

5 Research Parkway
Wallingford, CT 06492

Via Route 15 (Merritt / Wilbur Cross Parkways)

Exit 66 in Wallingford
Left at light at end of ramp onto Rte. 5 South
Stay on Rte. 5 for approx. 1/2 mile
Left immediately past Shell station onto access road or Rte. 68
Left at light onto Rte. 68 East
Follow Rte. 68 past Courtyard Hotel (on left), past entrances to I-91
Left at 1st traffic light past I-91 (not incl. Entrance to I-91 North) onto Research Parkway
Bristol-Myers Squibb driveway is the 1st on the right

Via I-95 (New England Thruway) and New Haven Area

I-95 North to Exit 48 (left exit) onto I-91 North
Stay on I-91 for about 15 miles to Exit 15 (Rte. 68)
Right off exit onto Rte. 68 (east toward Durham)
Left at 1st light onto Research Parkway
Bristol-Myers Squibb driveway is the 1st on the right

Via I-91 (from Hartford)

I-91 South to exit 15 (Rte. 68)
Left at light at end of ramp
Left at 1st traffic light past I-91 (not incl. Entrance to I-91 North)
onto Research Parkway
Bristol-Myers Squibb driveway is the 1st on the right

