

Boston Area SAS® Users Group (BASUG) Training Announcement

Tuesday November 6, 2018
2 Half-day Training Sessions

The NonProfit Center
89 South Street
Boston, MA 02111

BASUG is proud to offer two training sessions led by SAS expert and author Art Carpenter:

- **Innovative Tips and Techniques: Doing More in the DATA Step**
- **Building Dynamic Programs and Applications Using the SAS® Macro Language**

Please join us for either or both of these informative sessions, and consider coming to our Annual SAS Blowout as well (separate event one day prior). *For information on the Annual Blowout, please visit the [Meeting Announcement](#)*

Agenda*

8:30 AM – 9:00 AM	Sign in and Continental Breakfast
9:00 AM – 12:30 PM	Innovative Tips and Techniques: Doing More in the DATA Step <i>Instructor: Art Carpenter, Independent Consultant/Statistician</i>
12:30 PM – 1:30 PM	LUNCH
1:30 PM – 5:00 PM	Building Dynamic Programs and Applications Using the SAS® Macro Language <i>Instructor: Art Carpenter, Independent Consultant/Statistician</i>

**Note: Times are approximate and subject to change. Please re-visit the BASUG website (www.basug.org) for updated information.*

[Event details are below.](#)

Morning Training

Innovative Tips and Techniques: Doing More in the DATA Step

In order for you to use SAS® to write innovative DATA step solutions to complex coding problems, it is necessary for you to have more than a basic understanding of the individual statements. You need to understand how the various statements interact with each other and how their options can be leveraged to provide the kind of DATA step code that will provide innovative solutions to the toughest of problems. Based on Art's latest book, *Carpenter's Guide to Innovative SAS® Techniques*, published in the spring of 2012, this class is a must for the DATA step programmer that wants to take his or her programs to the 'next' level.

Topics include:

- Data set options with impact
- New functions and old functions with new options
- Evaluating expressions
- Working with Data Component Objects - Hash Tables
- Transposing the data using arrays
- Using the DOW loop
- Using double SET statements effectively
- Look-ahead and Look-back techniques
- Using Multi-label formats to create running averages
- Table look-ups in the DATA step
- *and much more*

This course is designed to be taken by a student who has a basic understanding of the DATA step, its primary statements, and its basic operation. The seminar will provide a short refresher of these basics, but will concentrate on topics that will allow the user to take full advantage of the power of the DATA step.

The student will leave the seminar with a deeper understanding of the operation of the DATA step and a number of its primary statements. The student will be exposed to a number of advanced techniques that solve difficult programming problems in innovative ways. The relative efficiencies of a number of competing techniques will be discussed along with the methodologies for their implementation.

Intended Audience Level: Beyond Beginner

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Afternoon Training

Building Dynamic Programs and Applications Using the SAS® Macro Language

This seminar shows you how to take advantage of SAS Macro Language capabilities that enable you to write dynamic programs and applications. By mastering the concepts and techniques presented in this class your programs will become free of hard-coded data dependencies, thus eliminating the need to re-write the code every time a data set name, variable name, or other data attribute, changes. Let “them” change the project's specifications as often as “they” want...your code is ready!

The dynamic programming techniques that you will learn about during this seminar:

- Are flexible and are easily adaptable to changing data structures, data table names, and variable (field) attributes
- Reduce maintenance requirements by removing data dependencies from within the programs
- Provide significant resource savings during program/application development cycles
- Gives the end-user extensive control over program execution by using tables such as SAS data dictionaries, SAS data sets, and Excel tables
- Reduce program validation efforts by providing reusable and generalized code that can be applied to many different applications
- Establish controlled data environments, thus insuring data integrity throughout your organization

This course makes extensive use of example macros that have been gathered from real world applications, and it concentrates on the techniques necessary to make effective use of these tools.

Intended Audience Level: *Strong* understanding of the macro language

Instructor



Art Carpenter, an independent consultant and statistician, has been a SAS user since 1977. His impressive list of publications includes *Carpenter's Guide to Innovative SAS Techniques*; *Carpenter's Complete Guide to the SAS REPORT Procedure*; *Carpenter's Complete Guide to the SAS Macro Language, Third Edition*; *Annotate: Simply the Basics*; his co-authored *Quick Results with SAS/GRAPH Software*; and two chapters in *Reporting from the Field*. He also has served as the general editor of Art Carpenter's SAS Software Series. As an Advanced SAS Certified Professional, Art has presented more than a hundred papers, posters, and workshops at SAS Global Forum, SAS Users Group International (SUGI) conferences, and various SAS regional conferences. Art has received several best-contributed-paper awards, and he has served in a variety of leadership roles for local, regional, national, and international users groups, including conference chair and executive board member of the SAS Global Users Group.

Event Details

When	Tuesday, November 6, 2018
Where	The NonProfit Center developed by TSNE MissionWorks ¹ 89 South Street Boston, MA 02111 617-439-3142 
Directions	Please visit the meeting site directions page
How to register	Individual, on-line registration required. Please visit the event registration page Registration closes at NOON on FRIDAY November 2nd! NO WALK-INS! On-line pre-registration is required for all attendees, even if you plan to pay at-the-door by check. Please register early! Seating is limited and handouts are only guaranteed for pre-paid registrants.
Pricing	Single Class (morning or afternoon): \$155 – if paid on-line by Friday, October 26 \$180 – if paid on-line by NOON on Friday, Nov. 2nd \$195 – pay-at-the-door (checks only) – but pre-registration is required! ~ or ~ Register for BOTH classes at the same time for a discount*: \$265 – if paid on-line by Friday, October 26 \$305 – if paid on-line by NOON on Friday, Nov. 2nd \$335 – pay-at-the-door (checks only) – but pre-registration is required!

Note
Location!

	<p>*To receive the 2-class discount you must register for both classes at the same time.</p>
Payment Methods	<p><u>Credit Card</u>: We urge you to pay by credit card, using our online registration system. Make sure to purchase your ticket by October 26th to get the early-bird price.</p> <p><u>Check</u>: Do NOT mail a check to us prior to the workshop. Pre-register online, and bring a check with you for the at-the-door-price.</p> <p><u>Full payment</u> is due by the day of the class, November 6th. There will be NO EXCEPTIONS. We do NOT accept cash. We do accept credit card payments – but only through our online registration service.</p>
Refund Policy	<p>To receive a full refund for the training, please send an email to our Event Coordinators by 5PM on Friday, October 26, 2018. After this date we will refund your payment (less a \$10 processing fee) only if we can fill your seat with other attendees.</p>
Contact	<p>If you have questions about the trainings, contact our organizers: Rita Volya, Jean Roth, Quentin McMullen, or Paul Grant at: Event Organizers</p>

BASUG Contacts

Mailing Address:

BASUG
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 Boston, MA 02117

Email [the BASUG Webmaster](#)

- (1) The NonProfit Center located in the heart of Boston's political and financial hub, the center brings together organizations committed to pursuing social and economic change in a shared space. The NonProfit Center is housed in an architecturally distinctive property, listed on the National Register of Historic Places. It is conveniently located just one block from the South Station transportation center, an easy walk to the Massachusetts State House, Boston City Hall, restaurants and downtown Boston.