

# Ohio SUG 2010 SAS® Training Courses

by Kirk Paul Lafler, Software Intelligence Corporation

**Tuesday, May 18<sup>th</sup>, 2010; 8:00am – 12:00 Noon**

## **PROC SQL Programming: The Basics and Beyond**

This course expands your PROC SQL programming skills using numerous examples and techniques of this powerful database language. Topics include strategies for creating and using virtual tables known as views, using case expressions to perform conditional logic and reclassification of data values, complex queries using inner and outer join constructs including set operators, database design concepts including basic normalization rules, examples of implementing table integrity constraints, accessing information contained in read-only dictionary tables, interfacing PROC SQL with the Macro facility to create macro variables and macro variable lists, rules associated with index creation and usage, undocumented and hard-to-find PROC SQL features for debugging purposes, and PROC SQL performance tuning strategies.

**Intended Audience:** All SAS users

**Prerequisites:** SAS Basics course or 6-months SAS software experience

**Delivery Method:** Instructor-led with code examples

**Length:** 4-Hours

**Fee:** \$100.00

**Course Material:** Course Notes are included

**Tuesday, May 18<sup>th</sup>, 2010; 1:00pm – 5:00pm**

## **Building Reusable Macro Tools with the SAS® Macro Language**

The SAS® Macro Language is a powerful feature for extending the capabilities of the SAS System. This course presents a collection of techniques for constructing reusable and effective macros tools. Attendees learn how to build functional macros that process statements containing SAS code; learn basic design principles in the development of reusable macro tools; create macros containing keyword and positional parameters; utilize defensive programming techniques; build a library of macro utilities; interface the macro language with the SQL procedure; and develop efficient and portable macro language code.

**Intended Audience:** All SAS users

**Prerequisites:** SAS Basic Macro course or 1-year SAS software experience

**Delivery Method:** Instructor-led with code examples

**Length:** 4-Hours

**Fee:** \$100.00

**Course Material:** Course Notes are included

**Wednesday, May 19<sup>th</sup>, 2010; 8:00am – 12:00 Noon**

## **SAS® Programming: Beyond the Basics**

SAS users who have acquired basic skills presented in a SAS Software Basics course and want to expand their knowledge in the DATA step as a programming language will want to attend this SAS Programming – Beyond the Basics seminar. Attendees learn complex programming topics and techniques in the areas of data access, data manipulation, data management, data presentation, and much more. Topics include DATA step programming techniques including reading a variety of file formats; using column and line pointers; specifying system and language options; coding loops, ranges, and arrays; performing lookup operations with hash tables; using operators and modifiers; reshaping columns of data; techniques on managing data; custom report writing techniques; specialized ODS techniques for improved output, and testing and debugging techniques;.

**Intended Audience:** All SAS users

**Prerequisites:** Minimum 1-year Base-SAS programming experience

**Delivery Method:** Instructor-led with code examples

**Length:** 4-Hours

**Fee:** \$100.00

**Course Material:** Course Notes are included

# Ohio SUG 2010 SAS® Training Courses

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**Wednesday, May 19<sup>th</sup>, 2010; 1:00pm – 4:00pm**

## **Transferring Data between SAS® and Excel®**

This course focuses on the various techniques and methods associated with transferring data between SAS® and Excel®. Topics covered include the approaches available to users for transferring data and output from SAS to Excel as well as from Excel to SAS. A collection of proven techniques along with code examples are presented to illustrate popular transfer methods including Dynamic Data Exchange (DDE), the EXPORT and IMPORT procedures in SAS/ACCESS® software, a LIBNAME statement, the SAS Display Manager System, the ODS HTML destination, the MSOFFICE2K tagset to create a single-sheet Excel workbook and the EXCELXP tagset to create multi-sheet Excel workbooks.

**Intended Audience:** All SAS and Excel users

**Prerequisites:** SAS Basics course, or some SAS and Excel software experience

**Delivery Method:** Instructor-led with code examples

**Length:** 3-Hours

**Fee:** \$100.00

**Course Material:** Course Notes are included

## **Bio for Kirk Paul Lafler, Software Intelligence Corporation**

Kirk Paul Lafler is consultant and founder of Software Intelligence Corporation and has been programming in SAS since 1979. He is a SAS Certified Professional, SAS Institute Alliance Member (1996 – 2002), and provider of IT consulting services and training to SAS users around the world. As an author of four books including *PROC SQL: Beyond the Basics Using SAS* (SAS Institute, 2004), he has written more than four hundred peer-reviewed papers, been an Invited speaker at more than three hundred SAS International, regional, local, and special-interest user group conferences/meetings, and is the recipient of 15 “Best” contributed paper awards. His popular SAS Tips column, “Kirk’s Korner of Quick and Simple Tips”, appears regularly in several SAS User Group newsletters and Web sites, and his fun-filled SASword Puzzles are featured in SAScommunity.org and many SAS Newsletters.



### **Contact Information**

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# Ohio SUG 2010 SAS® Training Courses

## by Kirk Paul Lafler, Software Intelligence Corporation

### Course Registration

If you're looking for the most up-to-date training, Kirk Paul Lafler and Software Intelligence Corporation courses prepare you for tomorrow, today. Kirk invites you to attend these intensive half-day classes, and extend your knowledge in the SAS System.

Kirk Paul Lafler and Software Intelligence Corporation have been providing training for nearly thirty years. Our training brings users the latest features and cutting-edge advances and upgrades – information that will help you achieve greater success and put you a step ahead of the competition. Each class is taught by Kirk himself using a tutorial step-by-step approach.

### To Register

1. Register one person per form. Make additional copies if necessary.
2. Select the class(es) you want to attend by checking the appropriate box(es).
3. Please print or type information on each form to process registration.
4. RSVP the names of each attendee by sending an email to KirkLafler@cs.com no later than May 7<sup>th</sup>, 2010.
5. Bring registration form along with payment for each class that you are attending in the form of a business check, cashier's check, or money order.
6. Make payment to: **Kirk Paul Lafler**

### Attendee Information

- PROC SQL Programming: The Basics and Beyond (May 18<sup>th</sup>, 2010; 8:00 am – 12:00 pm)
- Building Reusable Macro Tools with the SAS® Macro Language (May 18<sup>th</sup>, 2010; 1:00 pm – 5:00 pm)
- SAS® Programming: Beyond the Basics (May 19<sup>th</sup>, 2010; 8:00 am – 12:00 pm)
- Transferring Data between SAS® and Excel® (May 19<sup>th</sup>, 2010; 1:00 pm – 4:00 pm)

Dr.  Mr.  Ms.  Ms. Name \_\_\_\_\_

Organization \_\_\_\_\_

Department \_\_\_\_\_

Address #1 \_\_\_\_\_

Address #2 \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

E-mail \_\_\_\_\_

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