



**Gupta Programming, <http://www.SASSavvy.com>**

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*"I enjoyed attending your Hands-on Workshop on Proc SQL very much.", Esther Kwan, SAS Programmer*

## **Maximizing Productivity and Efficiency using Proc SQL** *Improve database query building and performance today!*

### **COURSE DESCRIPTION**

Do you need to learn effective techniques for querying terabytes of data? Weather you are new or an experienced Proc SQL programmer, you can expect to quickly take advantage of Proc SQL to organize, group, sort, summarize and distill massive amount of data into reliable information. This unique course explores syntax options for each common program task including selecting, creating, joining and summarizing data. By applying the step-by-step examples provided throughout the course, you too can master Proc SQL in your daily programming environment. Each student receives the companion SAS e-guide, a \$24.95 value, which is a great reference tool for searching, cutting and pasting concise model SAS examples.

### **COURSE OUTLINE – Quick Results with Proc SQL e-Guide (Searchable PDF file)**

#### **1. Quick Results with Proc SQL e-Guide**

- 1.1 Proc SQL Basic Usage and Syntax
- 1.2 Eight common benefits for using Proc SQL
- 1.3 Internal cross-reference links
- 1.4 SAS Savvy's external links to relevant SAS papers, SAS Institute web site, Webcasts and more

#### **2. Table Access and Retrieval**

- 2.1 Column Definition – existing, new, statistical functions,
- 2.2 Join Tables by inner join, by outer join, fuzzy join, self-join, union, intersect, except
- 2.3 Subset Tables by rows, by groups, by subqueries, by correlated subqueries
- 2.4 Sort Tables by rows, by groups, by groups and rows

#### **3. Creating Macro Variables**

- 3.1 Five options for creating macro variables

#### **4. Table Structure Operations**

- 4.1 Five options for creating or modifying table structure – create, alter, or drop tables/views/indexes

#### **5. Table Content Operations**

- 5.1 Five options for changing table content – update, insert, or delete rows

#### **6. Connecting with Relational Databases and Dictionary Tables**

- 6.1 Proc SQL Basic Usage and Syntax – oracle, db2
- 6.2 Leveraging the Power of Dictionary Tables

#### **7. Comparing Proc SQL with DATA Step Programming**

- 7.1 Side-by-side comparison of features, Comparing Proc SQL with SAS Procedures
- 7.2 Unique Proc SQL Keywords, SQL Functions, Automatic Macro Variables
- 7.3 Summary Sheet and SAS Papers on SAS Program Efficiency

**Course Length:** 3.5-Hours Course, On-Line or On-Site