

Book Review

Sharpening your SAS skills. S. Gupta and C. Edmonds (2005). Boca Raton Florida: Chapman & Hall/CRC. ISBN: 1-58488-501-7

The authors state in their preface of the book that "*Sharpening your SAS skills* is a concise guide designed to help you read, understand, and write better SAS programs". So it deals mainly with the data management part of SAS programs like DATA step and PROC SQL, SAS syntax approach and error handling. All of these steps in programming are accompanied by examples in the book. These will help the reader to diagnose the most common SAS programming tasks in data access, data management, data analysis, and data presentation. All mentioned aspects are given in the book by showing the syntax, SAS programs and the related output escorted by some introductory text.

Chapter 1 introduces methods for accessing data from external files especially by using the INPUT statement. Combining SAS data sets by MERGE or SET is the second major part in this chapter. Chapter 2 provides examples on how to subset records and select variables as well as creating new variables by functions. In addition, the authors describe in detail how SAS is compiling and executing the syntax-file. In chapter 3 the use of data management in the DATA-Step is illustrated by many examples. The IF statement, conditional programming, SAS functions, creating variable attributes, DO loops and SAS arrays are the main content in this chapter. Chapter 4 shows how reports and output can be produced by SAS procedures. Here some basic procedures are specified in examples (like PRINT, MEANS, FREQ, TABULATE). ODS is introduced to produce reports in several formats like HTML, PDF or RTF. Export of data is shown, too. The topic of chapter 5 is the error-handling in SAS. This vital part in using and understanding SAS is given by examples of ERRORS, WARNINGS, and NOTES in the SAS log. This chapter helps to understand the reasons for such messages and so they may be prevented. The last chapter 6 describes enhancements in SAS version 8.2 and 9.1 like the audit trail, prevention of data entry errors and so on. Each chapter ends with a summary and some questions to reinforce the skills. At the end of the book the answers of all questions, a glossary, and a lot of references are documented.

The output (listing and log) from the examples was generated using SAS release 8.2 or 9.1 on a Windows XP computer using SAS Base. For PROC IMPORT and PROC EXPORT the module SAS/ACCESS to PC is also required. The SAS Learning Edition software will handle all subjects mentioned in the book.

The book will not be a complete reference book but will establish a strong understanding of the SAS programming language by reviewing and testing the knowledge of the SAS programming essentials. If the reader is willing to look into a nearby technical document rather than a readable text book, this aim can be achieved. But for all others the information in the book is not easy to follow. The text is highly structured: a small text is followed by bold syntax-specification, followed by option-tables, examples and output. From a biometricians point of view there are no analysis tasks in this book beside of basic reporting. So, as a summary, this book can help SAS programmers in programming and debugging SAS programs as a special reference book.

Rainer Muehe*

Institute of Biometrics, University of Ulm
Schwabstraße 13
89075 Ulm
Germany

* e-mail: rainer.muehe@uni.ulm.de, Phone: +49 (0) 731 50 26903, Fax: +49 (0) 731 50 26902