



Using Perl Regular Expressions in the SAS® System



Presentation Formats:

Half-day in classroom or via the internet. Expandable to a full day with hands-on exercises

This intensive session shows the experienced SAS data step programmer how to access the power and flexibility of the SAS 9 PRX Functions to examine, parse, verify and test the values of character data. No prior experience with Perl is required to obtain maximum benefit from this class.

After taking this seminar you will be able to:

- Understand how to compose Perl regular expressions
- Apply Perl regular expression components to define the patterns to find in the value of a variable
- Use the PRX functions and CALL routines in the SAS Programming Language to search within text strings for the values you need to find
- Understand how to search text strings to perform quality assurance and data validation tasks
- Find matches within text strings
- Locate patterns and make substitutions to fix text errors
- Parse complicated text strings to find multiple matches, or determine if there are no matches at all in the string you are testing
- Apply the PRX functions to text-handling problems, such as editing data imported from other file types (e.g. text or Excel™ data)

Overview

This seminar introduces you to two separate programming features: the Perl pattern matching tools known as 'regular expressions', and the introduction of these tools in SAS 9 Software in a series of "PRX Functions" available in the SAS Programming Language. These powerful functions harness the power of Perl pattern matching tools within your SAS programs, thus simplifying otherwise complex handling of character data values such as data validation, quality assurance, string testing, repairing text variables and assigning values to new variables based on the results of your search for patterns in the values of existing variables. This session starts with the basics and then builds upon core concepts in pattern matching to enable you to create and apply increasingly sophisticated pattern matching routines you can use to resolve the problems you face in your day-to-day work. The materials are presented in lecture format, using a combination of instructor demonstrations and presentations. When presented on-site, the contents are usually customized with example data sets and problems provided by the client, and hands-on exercises are added to the agenda.

Intended Audience

This advanced-level seminar is designed for the experienced SAS data step programmer who is already comfortable applying core SAS programming language concepts such as variable, function and call routine. No prior knowledge of or experience with Perl is assumed.

Topics and Agenda

What is a 'Regular Expression'?

Overview of putting patterns into PRX functions

Concepts of pattern-matching using Perl regular expressions

The Five Rules of regular expressions

The components for building patterns

Special characters in Perl regular expressions

Tips and tricks you should know when building a Perl pattern that save you time and programming steps

Advanced pattern components for more sophisticated pattern matching

The PRX functions in the SAS DATA Step

- The basic PRX functions:
- PRX CALL routines

More sophisticated PRX functions for more complex tasks

How the pattern matching really works and how to control the pattern matching process

Using the PRX functions together with the regular expressions

Finding text that matches your pattern

Substituting matching text strings with other strings

Handling cases where there is no match

Handling cases where there is more than one match in a single string

Contact Sierra Information Services For More Information:

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