

# Perl, Part 3 of 3: Regular Expressions and Routines

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**Meet the expert:** Chris Penick is CISSP certified and has been a consultant and CISSP trainer in the technology industry for the past 20 years. During that time, he has worked as Principal Learning Consultant for Symantec, webmaster for the FDA, cyber-warfare scenario developer, technical investigator and forensic analyst for a private security firm. His past government clients include all branches of the United States Military, the Department of Commerce, the IRS, the U.S. Custom and Immigration Service, the Executive Office of the President, and state and local governments in Maryland, Michigan, Virginia, and the District of Columbia. His corporate clients include Guess, Inc., EMC, Raytheon, Lockheed Martin, and the Discovery Channel.

**Prerequisites:** This is an entry level course. Some amount of programming experience will be helpful and speed up your learning but you can jump right into this course at any level.

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**Course description:** This course will dive deep on the string of characters known as regular expressions, which are used to define patterns in Perl. Perl expert Chris Penick will make you a regular expression guru by teaching you how to master the syntax of regular expressions. He'll also show you other ways to make Perl work for you by explaining how to invoke subroutines in Perl and use other tools to find, select, extract, change, and save data.

## Course outline:

### Subroutines

- Introduction
- The undef Value
- Detecting undef
- Define a Subroutine
- Invoke a Subroutine
- Return Values
- Demo: Subroutines
- Summary

### Arguments and Return Values

- Introduction
- Arguments
- Private Subroutine Variables
- Variable Argument Lists
- Using My
- Use Strict
- Return Values
- Demo: Arguments
- Demo: Return
- Summary

### Simple Regular Expressions

- Introduction
- Regular Expressions
- A Simple Pattern
- Match Binding Operator
- The Match Operator
- Demo: Simple Pattern
- Demo: Match Bind Operator
- Summary

### Metacharacters

- Introduction

- Regular Expression Types
- Match Position
- Match a Set of Characters
- Ranges of Regular Expressions
- Ranges of Digits
- Negating Ranges
- Dot Metacharacter
- Literal Metacharacters
- Patterns Provided in Perl
- Pipe Alternatives
- Question Mark Quantifier
- Asterisk Quantifier
- Plus Quantifier
- Demo: Regex
- Demo: Regex Patterns
- Summary

### Text Manipulations

- Introduction
- Substituting Text
- Special Match Variables
- Capture Groups
- Global Modifier
- Demo: Substitution
- Demo: Greedy Substitution
- Demo: Before and After
- Summary