Ruby Programming

This 3 day course covers the fundamental components of the Ruby Programming Language. Emphasis is placed on the object oriented aspects of Ruby. Topics include arrays, hashes, regular expressions, io, exceptions, modules, and applications areas.

Course Objectives:

- Distinguish and use various Ruby databases.
- Master the use of arrays and hashes.
- Build home grown classes.
- Use the extensive pre-bundled classes.
- Use the I/O facilities of Ruby to read and write binary and text files.
- Master the use of Iterators to loop through the various data structures.
- Use Exceptions in handling various run time errors.
- Create Ruby modules.
- Use the wide variety of Ruby Modules that come with the Ruby distribution.

Audience: Programmers who have programmed languages such as, but not limited to, C, C++, Java, or Perl.

Prerequisites: Students should have at least six months of programming experience in at least one programming language.

Number of Days: 3 days

1 An Introduction to Ruby
- What is Ruby?
- Installing Ruby
- Executing Ruby Code
- Getting Help
- Dynamic Types
- Ruby Reserved Words
- Naming Conventions

2 Standard Ruby Data Types
- Numbers
- Strings
- Simple Input and Output
- Converting String Input
- Regular Expressions
- Time Methods

3 Language Components
- The if Statement
- The case Construct
- Loops
- Iterators
- Numeric Iterators
- String Iterators
- Methods
- Odds and Ends

4 Collections
- Arrays
- Array Operator Methods
- Array Equality Operator
- Arrays as Stacks and Queues
- Higher Dimensional Arrays
- Other Useful Arrays Methods
- Command Line Arguments
- Hashes
- Common Hash Methods
- Sorting Hashes
- Iterators with Arrays and Hashes
- Arrays and Methods
- Hashes and Methods
- Named Parameters
- Symbols