

# In Search of Excellent Requirements Three-Day Seminar

## **Duration**

3 days

## **Instructor**

Doug Muir

## **Class Limit**

20 students

## **Prerequisite**

None

## **Price**

On-site

Please contact SPC  
for pricing (contact  
information on page 2)

Public Training

\$1,495 (3 days)

\*Discount available for  
early registration

## **Materials Provided**

- Student manual containing the course slides
- Student handouts with class exercises

Many businesses are realizing that poor requirements processes between the business and IT are key contributors to their project failures and delays. And with good reason; requirements form the foundation for all the software work that follows. Arriving at a shared vision of the product to be developed is one of the greatest challenges facing the software project team, and customer involvement is among the most critical factors in software quality.

In Search of Excellent Requirements, based on Karl Wiegers's book, *Software Requirements, 2nd Edition* (Microsoft Press, 2003), describes dozens of tested methods that can help any organization improve the way it elicits, analyzes, documents, verifies, and manages software requirements. Characteristics of excellent requirements statements and requirements specifications are presented and used to evaluate some sample functional requirements.

This three-day workshop, combining instructor-led discussion with intensive practice sessions and multiple group exercises, emphasizes several practical techniques:

- Creating an effective customer-development partnership
- Customer involvement through a "product champion" model
- Application of use cases for defining user needs and system functions
- A simple model for prioritizing requirements
- Writing software requirements specifications using a standard template
- Constructing dialog maps to model user interfaces, as well as other analysis models
- Use of prototypes to clarify and refine user needs
- Use of technical reviews and inspections to find errors in requirements
- Use of a requirements traceability matrix to connect requirements to design elements, code, and tests

Requirements management is approached from the Software Engineering Institute's Software Capability Maturity Model (SW-CMM) perspective. The SW-CMM's expectations for requirements management are described, as are practical methods for managing changes to requirements. These techniques can reduce project risk by improving the quality and control of the software requirements, thereby increasing the likelihood of a successfully completed project.

TRAINING

# In Search of Excellent Requirements

## Instructor

Software Productivity Center's Doug Muir has over 25 years of professional experience as a Software Engineer and Project Manager. He is one of North America's leading instructors of the *In Search of Excellent Requirements* course, as well as other project management workshops. Doug's expertise has given countless software developers the skills and techniques needed to successfully bring a project to market.

Before joining SPC, Doug held a variety of senior-level mandates with both small and large Canadian and UK-based organizations, and governmental agencies. The majority of Doug's work experience has been centered on process and operational improvements, product development, software project consulting, and change management initiatives. Doug holds a Project Management Certification from PMI.

## Intended Audience

This seminar will be useful to software engineers, managers, requirements analysts, user representatives, and anyone else engaged in gathering, documenting, analyzing, or managing customer requirements for software applications.

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For more information on this or other SPC Springboard courses, please visit [www.spcspringboard.com](http://www.spcspringboard.com) or e-mail SPC at [info@spc.ca](mailto:info@spc.ca)

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## Outline

### Introduction to Requirements Engineering

- Seminar, logistics, participant expectations
- Three levels of software requirements
- Characteristics of high-quality requirements
- Requirements development vs. requirements management

### Software Requirements Development

- A requirements development process
- The requirements analyst
- The customer-development partnership
- The vision and scope document
- Sources of requirements
- Classifying requirements into categories
- User classes
- Customer involvement in the process
- Gathering user requirements with use cases
- Event-response tables
- Business rules
- Documenting requirements: the software requirements specification
- Requirements management tools
- Prioritizing requirements
- Software quality attributes
- Using analysis models
- Modeling user interfaces with dialog maps
- Reducing the expectation gap with prototyping
- Requirements verification practices
- Peer reviews and inspections

### The Capability Maturity Model for Software

- Intent and structure of the CMM
- Requirements and the CMM
- Some process improvement principles
- Barriers to process improvement

### Software Requirements Management

- Requirements management goals & practices
- Version and change management
- Requirements change impact analysis
- Requirements attributes and traceability
- Requirements and software risk management

### Improving Requirements Practices

- The process improvement change cycle

### Requirements Writing Workshop

- Eliciting requirements
- Writing use cases
- Writing functional requirements
- Writing quality attributes
- Writing data dictionary entries
- Reviewing requirements

