

Quality: The Foundation for Great Software

Duration

2 days

"The gap between the best software engineering practice and the average practice is very wide – perhaps wider than in any other engineering discipline."

-Fred Brooks

Instructor

Geoff Hewson

Unfortunately, it's safe to say that the statement probably holds true for your organization, where the approach to getting software out the door is likely based on weak planning and strong dependence on heroes. The up-front work that is commonly considered to be overhead, preventing you from getting to the task at hand, is actually the mission critical stuff that you need to focus on if you wish to reduce your risk and costs for delivering quality software.

Class Limit

20 students

Prerequisite

None

Developing quality software means much more than producing defect-free code. It involves techniques that allow you to understand and measure what real quality means for your software products. It is a team effort involving software engineers, managers, quality assurance staff and others. This seminar will provide participants with a clear understanding of techniques used by successful companies to achieve software quality, and save money, time, and pain in the process. This is not a software testing course.

Price

On-site

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

Public Training

\$1,095 (2 days)

*Discount available for early registration

In this seminar participants will:

- Understand the need for quality assurance
- Learn about the role of the QA function, the nature of software quality, and the problems of assessing any level of software quality
- Find out how to ensure that adequate control of quality is achieved
- Produce and implement a QA Plan
- Understand the application of international standards to software development and maintenance

Materials Provided

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

Intended Audience

This seminar is ideally suited for analysts, project managers, quality assurance staff, software purchasers, and managers wanting to review modern software quality practices.

TRAINING

Quality: The Foundation for Great Software

Instructor

As President of Software Productivity Center (SPC), Geoff Hewson is responsible for championing the company's long-term mission of enabling software organizations throughout the world to realize the full business potential of their software development processes, technologies and teams. Geoff also oversees the service delivery division of SPC and drives the overall thought leadership behind the organization's service offerings and research initiatives.

During his eight years with SPC, Geoff has directed numerous consulting projects, where his interests have covered most aspects of software development. Prior to SPC, Geoff's 20+ years of IT experience have included senior positions with Microsoft (where he contributed to the Microsoft Solutions Framework), Ford Motor Company and the Canadian Federal Government. Geoff holds a Ph.D. in Physical Chemistry from the University of Sheffield, UK.

Outline

Day 1

Quality Principles

- Concepts and Factors
- Exercise: The Role of Quality
- Case Study: Quality Factors
- Exercise: Quality Criteria
- Discussion: Cost of Poor Quality

For more information on this or other SPC Springboard courses, please visit www.spcspringboard.com or e-mail SPC at info@spc.ca

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Outline Cont'd

Quality Plans

- What goes in the Plan?
- Reviewing the Plan
- Implementing the Plan
- Exercise: Quality Plans

Quality Metrics

- Why measure?
- Functional classification of measures
- ISO 9003-2 requirements
- Metrics standards
- Desirable properties of a metric
- Halstead's Software Science
- McCabe's Complexity Metric
- Function points
- Starting a metrics program

Day 2

Reviews, Inspections and Audits

- Costs and benefits of reviews
- Project reviews
- Guidelines for effective project reviews
- Inspections - step by step guidelines
- Inspection metrics
- Making inspections effective
- Exercise: Code Inspections

Quality Standards and Systems

- What's an audit?
- Audit preparation, conduct, records, and follow-up
- Exercise: Quality audits
- Quality standards
- Discussion: Experience with standards
- Quality system registration
- Registration process
- Industry use of standards
- Discussion: Quality System Registration

Implementing and Justifying Quality

- Possible approaches
- Roles and making changes
- Improvement models
- Key quality practices
- Justifying quality
- Calculating costs of quality and non-quality
- Appraisal, prevention, and failure costs



TRAINING

