

- Develop dynamic test strategies to reduce product and project risk with effective testing
- Learn a flexible and adaptable approach for testing any software
- Discover the keys to risk-based test planning and how to establish realistic testing goals
- Identify, analyze, and prioritize test objectives to guide all testing activities
- Focus test designs on finding important bugs more quickly and with less effort
- Find out how to report testing results and use this information to improve your testing processes

A Risk-Driven Test Process for any Software Development Lifecycle

Whether you are new to testing or looking for a better way to organize your test practices and processes, understanding risk is essential to successfully testing software in today's ever-changing world. This course describes a general risk-based framework—applicable to any development lifecycle model—to help you make critical testing decisions earlier and with more confidence.

The key is deciding how to focus your testing effort, what elements and areas to test, and how to organize test designs and documentation. Learn the fundamentals of risk identification, analysis, and the role testing plays in risk mitigation. Learn how to develop an inventory of test objectives to help prioritize your testing efforts and translate these objectives into a concrete strategy for designing and developing tests. With a prioritized inventory and focused test design and architecture, you will be able to focus your test case creation on those areas essential to your stakeholders.

Execution of the resulting tests and assessing results based on risk-based processes will provide a better understanding of both the effectiveness of your testing and the potential for failure in shipped software. Take back a proven approach to organize your testing efforts and new ways to add more value to your project and organization.

Focuses on the Most Important Testing Issues

In a small-group class setting, your instructor, a seasoned testing expert, will help answer your tough testing questions and help you understand how to apply risk-driven testing to your specific situation. You'll leave equipped with a practical and proven testing approach that you can adapt to your organization, development lifecycle, applications, and project for immediate benefit. As a tester, you'll be equipped with the tools and skills to attack any testing project—no matter the context or scope.

Who Should Attend?

The audience includes test professionals, test managers, project leaders, quality analysts, and software developers. No specific prerequisites are assumed. However, attendees are expected to have some software experience.

Course Outline

Chapter 1 – Testing and Risk

- Focus of testing
- Complete/exhaustive testing Is impossible
- Risk management — overview
- Software risk areas
- Understanding process risks
- Understanding project risks
- Understanding product risks
- Categorizing risk

Chapter 3 – Product Risk (continued)

- Risk mitigation
 - Determining the mitigation strategy
 - Risk mitigation – approaches
 - Risk mitigation – strategic issues
 - Product risk mitigation – scope
 - Utilizing risk Information

Chapter 4 – Utilizing Product Risk – Test Design

- Determining the scope of testing

Attitudes and viewpoints relating to risk
Key elements of risk-driven testing

Chapter 2 – Project Risks - Test Planning

Deciding on a test plan
Test planning – key elements
Division of the testing effort
 Developer testing (component and component integration)
 System testing
 Acceptance testing
Staffing decisions and choices
Managing regression testing
The regression decision
Defining the testing scope
Deliverables and tasks
Environment — concerns and issues
Tools and automation – benefits and risks
Schedule, estimation and budget
Approvals (sign off on Plan)

Chapter 3 – Product Risk (Identification, Analysis, Mitigation)

Risk identification
 Risk identification techniques
Risk analysis
 Risk-Driven test analysis
 A product risk analysis model
 Risk analysis activities
 Creating an Inventory
 Applying the inventory process
 Risk analysis and prioritization
 Primary risk characteristics – impact and likelihood
 Approach to risk analysis
 Adjusting the testing

Approaches to test design
 Selecting the test approach
 Formal test design
 Informal test design
 The test design process
 Organize the test objects
 Example test set definition
 Test techniques and risk

Chapter 5 – Execution, Reporting, and Reassessing Risk

Test execution and risk – key elements
Testing status
Test effectiveness issues
Test execution issues
Test execution and failure
Categorizing defects
Coverage assessment
Reporting testing status
Assessing defect status
Stopping the testing

Chapter 6 – Wrap Up

Summary
The key to success
Course evaluations
Bibliography — books
Bibliography — articles and papers