

- 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