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in testing

Automation
specialist

Web tester

Advanced tester

Advertising feature

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Bug hunting is not a career

A very damaging idea

"A good test is a test that finds a fault"
(various sources)

Oh how this idea set back the career of the tester! It was highly doubtful in the early 1980s, when it first emerged in books on software testing, and is now completely out of step with reality.

The professional approach

Here are some better definitions:

"A good test is a tested test

A good test is repeatable

A good test represents the real world

A good test influences design

A good test represents the expected behaviour

A good test represents the desired behaviour

A good test is economical to run

A good test is understood by developers

A good test is understood by users

A good test is directly related to the business need"

(Quentin, *The Tester's Handbook*)

In order to achieve all these, testers must do far more than find bugs. Their work should be part of a defined formal process, and their training should develop a wide range of general and specialist skills.

A real career path in software testing is now widely recognised and well defined. The role of the **test analyst** covers analysis of requirements, designs and systems and design and execution of tests. The work of a group of test analysts is planned and scheduled, and results reporting is coordinated, by a **test team leader**. The test strategy is set and continually adapted according to project progress and change by a **test manager**.

The QBIT Generic Test Process

All QBIT's training is based on the well-known V Model. We believe that all projects should aspire to this and therefore a test process which is suitable for use by both system and acceptance testers and which is compatible with the V Model is required. The QBIT Generic Test Process has been created to meet this need; it has traceability at its centre and fits exactly with the modern view of the test analyst. It covers analysis for test conditions, test design, test scheduling and test execution, including regular status reporting at each step of the process.

The V Model approach divides testing neatly into analytical and empirical testing. Analytical testing uses reviewing, prototyping, simulation, modelling, role playing and model office. These are all on the left hand side of the V Model. The expensive, time-scale wrecking empirical testing is significantly reduced by strong, supportive analytical testing. Some organisations have found that empirical testing can be reduced to a single cycle because there are so few defects in the delivered system as a result of the analytical testing.

The test analyst

The work of the test analyst should be fundamental and vital to the development project. The main products of the test analysis - the tests - should start influencing design before the design is created. In fact the tests can even be used as requirements; this approach is certainly more agile than maintaining a specification of requirements document which becomes more and more elaborate as project change occurs.

To create tests which describe the business process in a way that both users and developers can understand, a test analyst must be trained in true analytical and design skills.

Senior tester

Developer

Database
developer

Business
analyst

A knowledge of the basic theory of software testing, as taught in courses such as those leading to the **ISEB Foundation Certificate**, is essential to ensure that a person understands the fundamentals of the job, but more training is needed to make them able to *do* it.

QBIT's certificated course **Putting Theory Into Practice: Test Analyst** develops the essential practical skills of analysis and design needed to derive the test conditions and so construct usable and effective test scripts. This process involves three distinct tasks: (1) to establish whether a document is complete, consistent, accurate, unambiguous and compliant with standards; (2) to establish that all attributes described are required, justified and traceable to business requirements; and (3) to design tests suitable for use later as empirical tests on the delivered system.

The test team leader

The test team leader plans, estimates, schedules, consolidates results and reports the progress of the testing effort. Other essential skills include the use of advanced test techniques, choosing and using tools, liaising with project and organisation management and formal communications, as well as the motivational and other people skills needed to support the work of the test analysts.

Again, QBIT provides a range of theory courses to support the advancement of testers into a team leading role, but also a certificated course, **Putting Theory Into Practice: Test Team Leader**, which

develops and tests the practical planning, estimating, scheduling, monitoring and controlling skills needed by senior testers.

The test manager

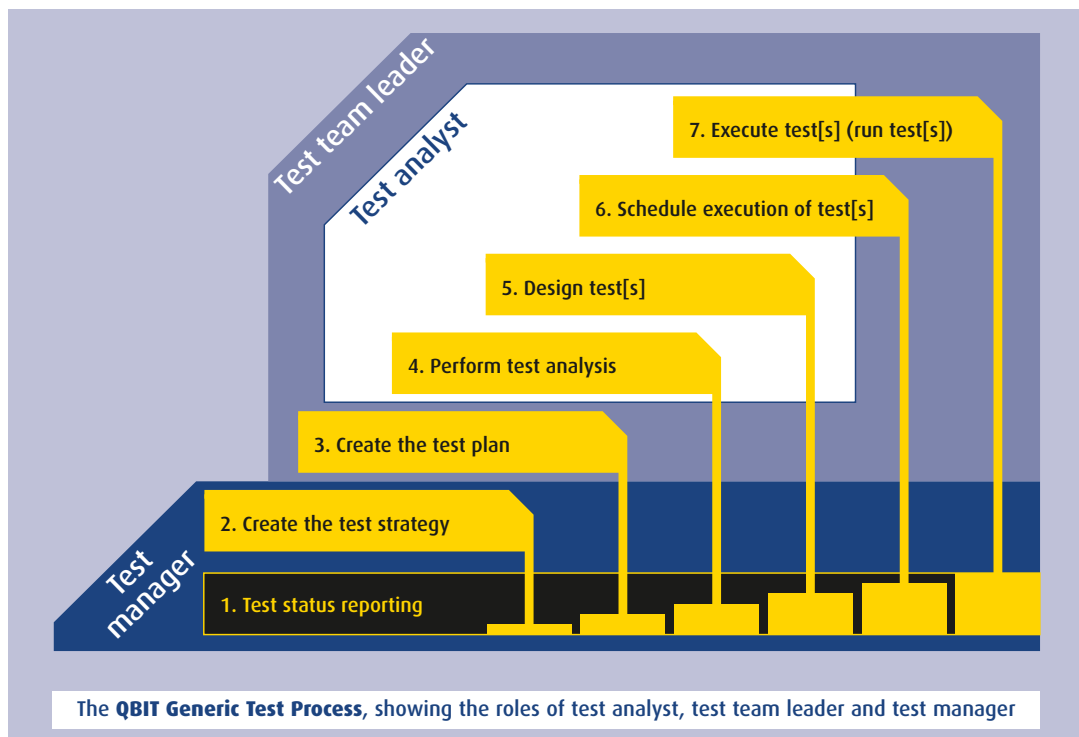
The specialised abilities needed by the manager are related to the product, business model and working culture of their organisation; QBIT offers courses on all aspects of modern quality software development. However the focus of all test managers is on strategy: budgets, politics and process improvement. The QBIT Generic Test Process has been designed to include all of these, and the certificated course **Putting Theory Into Practice: Test Manager** is a masterclass in strategies and reacting to change at project level. The senior and very knowledgeable delegates who attend this course are tested with three complex case studies and their work is assisted, observed and assessed by two expert and highly experienced presenters.

The way forward

Hunting for bugs by exploring systems late in development may be fun but it divides testers from developers and business, is expensive, and will never gain much reward or respect. Testers need to dissociate themselves from this image and move to a central project role, supporting development through a series of well-defined and carefully-chosen quality control points.

About QBIT

- QBIT is the test training specialist; we don't offer consultancy or recruitment and are completely independent of tools vendors etc
- QBIT offers a portfolio of 34 different testing courses for testers, developers and business analysts
- QBIT has presented over 120 courses leading to the ISEB Foundation Certificate in Software Testing since October 1999. Over 1,500 candidates have taken the course and examination with QBIT
- QBIT's presenters have trained over 25,000 testers worldwide
- QBIT's current managing director Geoff Quentin was the founder chairman of the BCS Specialist Interest Group in Software Testing and is author of **The Tester's Handbook**



For full specifications of all QBIT courses please visit www.qbit.co.uk