

PROTEROS DATASYSTEMS

Independent Testing Services

Overview

Proteros's testing professionals provide expertise and methodologies to assist our clients in achieving software and business process implementation objectives, while at the same time reducing cost, time and saving valuable in-house resources.

The testing consultancy offers a credible and well respected independent validation and verification service to help achieve the benefits of change more efficiently and ensure new system deployments, current system upgrades and business processes and procedures are all tested prior to being released into the field.

We aim to:

Reduce the cost of change

This covers the cost of all the testing activities, such as user-acceptance testing, which is often neglected or only partially undertaken.

Increase the speed of change

This covers reducing the elapsed-time spent testing and the time spent on remedial work and operational maintenance.

Improve the governance of change

This is achieved through better business alignment of the testing function and better management information from the testing activities through the employment of Proteros's own testing methodologies.

Our Testing Services

- Skilled Testing resources both on and offshore with specialist knowledge in many areas of the finance industry including payments and card sectors.
- Proprietary testing tools that will speed up testing phases and increase the available testing window and/or reduce testing costs. This is all backed by our own in-house software development department that develops testing tools designed by testers.
- Testing Services include:
 - Test Management
 - Test Strategy development
 - Test phase planning & scoping
 - Specialist testing tools
 - Defect management, supplemented with our own defect tracking tool
 - Regression test design
- Proteros has developed, over many years experience, proprietary testing frameworks that help in reducing test design times and ensure optimal test coverage.

Testing Practices

Our consultants will help support each stage of the Software Development Life-Cycle (SDLC), and we base our testing practices on the professionally recognised industry standard 'V Model'.

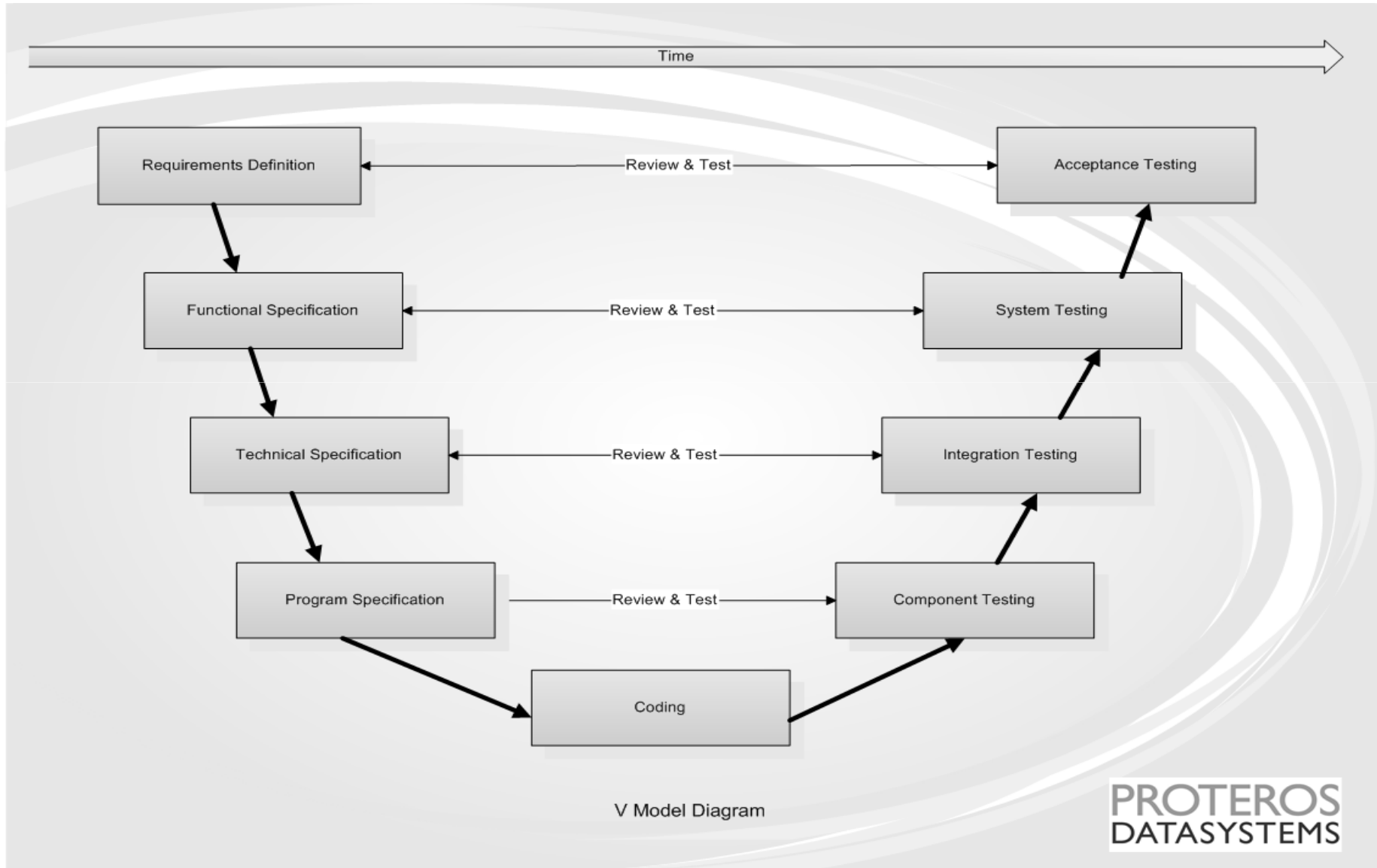
The V-Model demonstrates the complexity of relationships between each stage of the development life cycle and acknowledges that for every stage within the cycle there is an associated stage of testing.

It shows that testing does not have to occur once the 'code' has been delivered, which is what is often required to begin test execution. The testing can start early with analysis of the business requirements and creating test criteria of what needs to be tested.

Business processes and procedures also have to be given the necessary focus during testing but are often side-lined or neglected.

Proteros believes that the user-acceptance test (UAT) phase plays a major part in the successful implementation of any new solution. That is why we give special emphasis to UAT.

V Model



System Testing

What is System Testing ?

System testing is sometimes referred to as black-box testing, because the testing being undertaken does not have intimate knowledge of the components that make-up the system but instead considers the system as a whole. It is the first time all the components are brought together to be formally tested in end-to-end. The testing is performed by test analysts in a fully configured environment under strict controls. The purpose of system testing is to validate an application's accuracy and completeness in performing the functions as detailed in the functional specifications.

What are the benefits of System Testing?

This is the first opportunity to test the end-to-end solution, when all the components come together and are verified against the functional specifications for accuracy. The intention of the system testing process is to identify defects, quantify the capacity potential of the environment, and to determine if the systems meet user expectations. Defects identified during this phase will go through an iterative process of fix-and-verify as integration and functional problems are ironed out.

The benefits in conducting system testing is that test analysts with a technical view of the solution test the system in readiness for UAT by ensuring a stable and accurate system is deployed.

System testing also offers the first chance to introduce automation. Here, testing tools can be used to automate routine tests and ensure consistency between one version of the software and the next.

System testing provides the first opportunity to base-line the system as a whole and detect early problems with the integration of all the components. System testing is not confined to software but can be used to verify all the building-blocks of the solution. **Proteros can assist in this process with expertise in automation tools such as Hewlett-Packards' QTP but also providing test analysts with technical backgrounds.**

User-Acceptance Testing

What is User Acceptance Testing (UAT)?

UAT is a testing activity performed by end-users to

- Test the functionality of the solution before it is deployed
- Determine if the solution meets user needs

The point of UAT is for the business users to check the system in context of the business environment it will operate in and to see if the whole solution, including IT systems and operational procedures work in that environment.

What are the barriers to UAT?

- The cost of freeing up people and resources who already have a day job
- Belief that there are no suitably skilled staff to do it
- Already agreed to a signoff time-frame that is too short
- Belief that the system has been rigorously tested by the vendor or technology team

What are the benefits of UAT?

The Benefits of UAT are to reduce the risks of implementing changes to a business solution and to protect the organisation from the deployment of an incorrect one. By undertaking UAT the business community is able to:

- Gain confidence of the solution before deployment
- Gain application experience through training
- Obtain evidence the system is fit for purpose

UAT is one of the last, if not the last chance the business-users get to verify the solution before it is deployed into a live environment. **Proteros's test consultants can help you realise the potential of UAT not just from an application perspective but also from an operations one.**

Testing Tools – Cards Market

Proteros can add value to vertical-markets by the use of it's tester's knowledge of these markets and the design and development of bespoke testing frameworks and tools. An example is in the Cards payment area where:

- Proteros's bespoke card testing tools will significantly reduce test set-up time and in doing so will effectively expand the testing-window to allow greater time to verify system changes and modifications.
- Designed by qualified testers (Information Systems Examination Board – ISEB) with testing in mind.
- The test tools, in most cases, are available within days of the new scheme changes being published.
- The Proteros testing tools (including the simulator and data editors) are built around the easy to use MS Windows® GUI, which means that training requirements for new operators are minimal.

Benefits Summary

- **Saves you money** – using the Proteros testing service is more cost effective in terms of budget and utilisation of resources. All of our consultants have many years experience in the delivery of software and services within the finance industry and have up-to-date knowledge in the skills necessary for achieving successful testing phases. This in turn allows our clients to free up valuable in-house test resources from routine tasks, allowing more effective deployment and management.
- **Saves you time** – Consistent approach founded on proprietary Test Strategy allows you to maximise value of testing window. These are easily deployed to integrate into your current planned testing window. Our consultants are dedicated to providing these services and are available to deliver testing services as and when required to fit in with your business requirements.
- **Saves you more money** – by outsourcing this service you save money on training and in any capital expenditure required in setting up the testing function, especially UAT.
- **Saves you more time** – Our consultants work closely with development teams to help eliminate defects at an early stage and provide defect management and change control

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End of Presentation