Integrating testing and requirements management to supercharge software delivery

SUMMARY

An integrated approach to software requirements and testing drives significant improvements to more than just the final application; it improves the whole software development lifecycle. This is the approach to software quality championed by Micro Focus.

Instead of trying to test defects out at the end of the project cycles, the Micro Focus approach leverages requirements management and automated software quality solutions to eliminate defects from the beginning to the end of the lifecycle. This approach puts requirements at the heart of the application delivery process, and makes them the starting point for managing quality throughout the entire lifecycle.

Reducing rework through accurate requirements definition

Software teams have always struggled with requirements. Reaching an early consensus on how software should look and behave reduces the risk of unnecessary rework. Developers get an accurate view of what needs to be built and quality becomes an integral part of the solution early on.

Micro Focus' requirements definition solution enables enterprises to create visual, interactive simulations of the software in minutes. Because the drag-and-drop interface is so simple to use, non-technical users can easily create working prototypes with clickable menus and functions, just like the fully working piece of software. Web-based access to these requirements helps teams to collaborate, review and offer rapid feedback on concepts and changes before they go into production.

The visual requirements definition features within the Micro Focus solution give team members immediate insight to understand precisely what needs to be done from the start, vastly reducing the risk of waste and rework further down the line.

Accelerating testing through tight requirements and test management integration

Micro Focus requirements management solution offers open, bi-directional traceability for integrating requirements definition and management with other application delivery applications. The defined requirements have embedded user scenarios which can be automatically transformed into test cases. This accelerates testing during projects and project iterations.

Requirements based management visibility for timely, informed decision-making

Beyond the productivity benefits of creating test cases from requirements, the integration aligns testing to business value. Using Micro Focus solutions to automatically link requirements to tests means that QA managers can answer questions about the effectiveness of testing, and the testing coverage, of new software and existing functionality.

The Micro Focus solution takes important business attributes like criticality into account, enabling QA staff to prioritize testing and assign appropriate coverage for maximum return. Managers are then able to answer questions on the value of applying more or less resource to projects or test cycles.

Because of its ability to link quality effort to business value and manage business risks, requirements-to-test linkage is a core requirement of software delivery today and is a key capability in the Micro Focus solution.

With Micro Focus' range of market leading requirements management and automated software quality tools, customers are assured of quality throughout the life cycle from the definition of the first requirement, through the development of the system, until it is released.

The Micro Focus products that have been proven to address these challenges are:

› SilkCentral Test Manager: a powerful, extensible test management solution that builds quality and productivity into your testing process. It speeds the delivery of successful software projects while minimizing the risks of application failures, consolidating all of the critical software testing phases within a single, scalable, web-based testing system.

› Caliber: enables organizations to manage changing requirements throughout the development lifecycle while maintaining traceability to related assets such as test cases, source code and design or specification documentation. By providing effective coverage and impact analysis for proposed changes, Caliber ensures that organizations have increased control over and focus in their development efforts.

The solution also provides an interactive requirement definition platform. Through visualization of requirements, this platform helps organizations to understand the software projects they commission prior to investing in them. Simulation provides a foundation for innovation and acts as a force multiplier for downstream IT development

investments by ensuring the right software is built, while also eliminating avoidable rework.

These products from Micro Focus support your existing technologies through an open approach and ensure that quality is embedded throughout your software development life cycle.

MEASURING SUCCESS

Understanding your baseline enables you to improve the effectiveness of your development process. However gathering baseline figures can be a daunting task, which may prevent IT organizations from measuring the effectiveness of their new focus on requirements and testing. The Micro Focus Applications Management Value Profile (AVP) has been designed to make this process as painless as possible, helping IT organizations to gather this important information.

OVERVIEW OF APPLICATIONS MANAGEMENT VALUE PROFILE

Micro Focus has been gathering statistics from customers using the Applications Management Value Profile (AVP) for data modeling purposes. The model assesses organizations on three levels –

1. Financial

2. Critical business issues and adherence to industry best practices in the disciplines of project management, quality management, and requirements definition and management

3. Software change and configuration management.

The AVP enables organizations to objectively assess their current processes across these areas and provides a recommended roadmap for future software investments based upon projected business value.

The results thus far show the top four critical business issues facing customers are:

> Customer satisfaction

> Application delays and cost overrun

> Feature/functionality concerns

> Reliability

These critical business issues have direct and indirect ties to requirements and testing. Absent from the success equation is the notion of requirements driven testing. The concept is quite simple and highlights the value of approaching testing from a standpoint of:

> Ensure that requirements are accurate and validated

> Involve testers earlier in the development life cycle

> Ensure that test cases are aligned with the requirements of the business

> Test with measurement and improvement in mind.

For more information on the AVP or to assess your organization's maturity in requirements or testing, email requestavalueprofile@microfocus.com.

For more information on the Micro Focus products and services that ensure that requirements and testing integrate throughout the software development lifecycle, visit www.microfocus.com/CQA.

About Micro Focus

Micro Focus, a member of the FTSE 250, provides innovative software that allows companies to dramatically improve the business value of their enterprise applications. Micro Focus Enterprise Application Modernization and Management software enables customers' business applications to respond rapidly to market changes and embrace modern architectures with reduced cost and risk.

For additional information please visit: www.microfocus.com