



eBook

Application Development, Test & Delivery

Accelerate with Business Process Testing

Table of contents

Business Process Testing Bridges The Quality Gap	4
BPT Introduces The Concept of Reusable Business Components for Test Design	4
BPT: A Powerful Test Framework Tool for Both Business Users and Technical Testers	5
Unified Functional Testing Drives Test Automation for Migros Bank AG	6
BPT Helps American Water Automate Regression Testing for Complex, Custom, Frequently Updated SAP Systems	7
BPT Helps Sage Optimize Testing Processes to Enhance The Quality of Its Flagship ERP Application	8
Home Trust Company: Leading Canadian Financial Services Company Increases Application Quality and Builds a TCoE Using Micro Focus Software	9
ThyssenKrupp Elevator Americas: Leading Elevator Company Leverages Micro Focus Solutions to Modernize 200+ Branches' Back-Office Systems	10
BPT Helps Cornerstone Reduce The Time Required to Test Web Pages Where Clients Post Comments and Provide Product Feedback	11
Zebra Technologies Corporation: Print Technology Leader Uses Micro Focus Software to Roll Out Global Platform, Support Acquisition	12



There's an easier way to give the power of automation to the business-focused people in your organization.

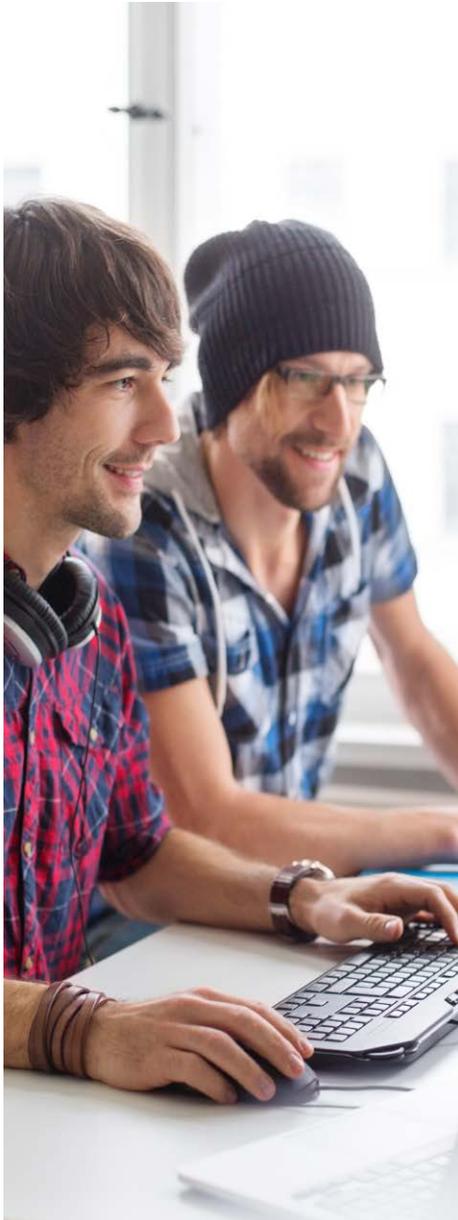
Whether you're testing a customer-facing mobile app or a critical enterprise application, the key to a successful testing strategy is to validate that your application's business processes are delivering the value you expected. And who in your organization knows these business processes best? It is likely to be business analysts, subject matter experts, Agile product owners, QA leads, or other business-oriented roles. These people are experts at knowing how the application is supposed to work, see the flows through the eyes of an end user, recognize which path the user would take to complete each transaction, and know what data gets entered and returned in the process.

Technical testers, software development engineers in test (SDET), and quality engineers know how to run automated tests. They are no strangers to coding, can build and debug dozens of test scripts per day, and can take a plain script and enhance it with parameters and variables, transforming it to a reusable, maintainable testing asset for future use.

In a typical QA team, the business users are involved strictly with manual tests, while automation experts focus on, well, automation. This setup is less than optimal. First, there's an issue with manual tests themselves: the process can be very time consuming, prone to human error, not easily documented, and rarely scalable across the organization. In addition, with every change, tweak, or new application release, you have to start testing over again, repeating the same steps you have gone through before.

Manual component testing remains a very valuable method for validating application functionality, but more and more organizations are turning to automation solutions to accelerate at least a part of their functional and regression testing. And this is where they hit the impasse: the business users who have been expertly testing applications manually are often lost in the world of scripting and coding. They prefer to work in Word, not JavaScript; keep their notes in spreadsheets, not databases; and while some QA managers may see the push to automation as the way to grow their team's skillset, many may simply find it too difficult and give up.

Here's the concept many QA organizations overlook: you can have business users and manual QA testers contribute to an automation effort, but you have to do it on their terms, using test framework tools, techniques, and methods that business analysts are already used to working with. Code-free testing can dramatically increase your chances of successfully moving toward automation and building a library of reusable business process test components, making testing more efficient and less tedious.



Business Process Testing Bridges The Quality Gap

The Quality Gap can be described as the holes that result in testing coverage when people who know how things are supposed to function and those who can build automated tests are not aligned. Micro Focus® Business Process Testing (BPT) is a unique way to close that gap by putting the power of building, data driving, and executing tests in the hands of subject matter experts and QA engineers with no scripting knowledge. How? By taking programming out of those tasks and replacing it with an intuitive, code-free, scriptless, web-based interface for capturing business process flows and storing them as components that can be used for both manual and automated tests.

BPT Introduces The Concept of Reusable Business Components for Test Design

BPT knows how to deal with The Quality Gap. It is a comprehensive, role-based test design solution that helps accelerate the journey to component-based testing. BPT uses a test framework approach to help you build a repository of reusable test modules—making tests more readable and easier to maintain. When things change, make the change once, and watch the revisions propagate across all tests that use a specific component. Above all, BPT gives the power of automation to business analysts, who can now capture high-level test flows with code-free features such as keyword-driven testing and data driving that mirror actual business processes by simply interacting with an application.

Once flows have been captured, they can be executed as manual tests (preserving all steps as part of documentation) or integrated into automated tests by quality engineers. Everyone wins.

BPT: A Powerful Test Framework Tool for Both Business Users and Technical Testers

- Brings the power of automation to your subject matter experts by giving them the code-free business process test framework platform to quickly develop automated testing assets without scripting
 - Enables technical test automation engineers to establish the test framework to design and develop reusable test components and flows based on business process models
 - Allows you to manually develop business process test scripts with Micro Focus Sprinter and automatically translate manual testing assets into automation business components
 - Reduces the effort required for test maintenance by supporting the creation of centralized business components for both manual and automated tests
 - Allows you to start testing automation earlier in the development lifecycle, before an application is delivered to QA or as part of an Agile approach
 - Generates test plan documentation automatically through an innovative auto-documentation feature
 - Enables versioning and baselining of components, flows, and tests
 - Enables you to set pass or fail conditions via component criteria for logical requirements coverage
 - Centralizes test maintenance so application changes are automatically propagated through automated test assets
 - Supports input parameters and data driving of tests during execution
 - Provides a framework for building User Acceptance Testing (UAT)
- BPT is an essential part of a complete set of the Micro Focus Application Lifecycle Management (ALM) practices and tools. Learn more about Micro Focus ALM [here](#).

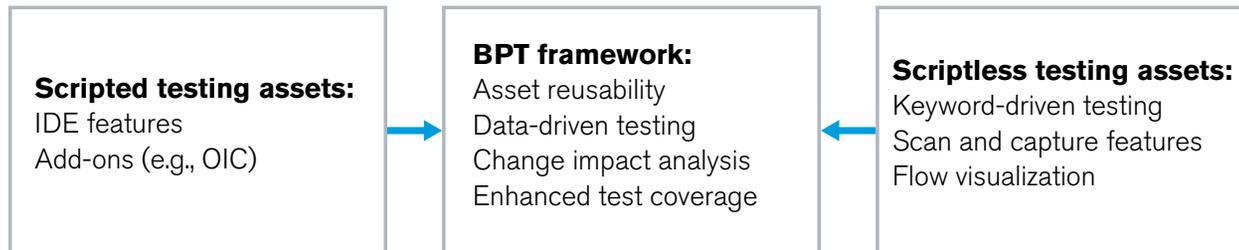


Figure 1. The BPT Framework with scripted and scriptless components.

**Business Results:**

- Business users were able to create automated tests without scripting using Micro Focus UFT.
- In the first nine months after implementing UFT software, Migros Bank automated approximately 70 test cases for business-critical processes, such as incoming payments or stock market purchases. Now, it is planning to have as much as 20 percent of all its test cases automated in the coming months.
- The standardized Micro Focus test environment has contributed to improvements in software quality, which is evident by a lack of any major production issues in the past several releases.
- Migros Bank credits Micro Focus ALM with being able to identify and resolve issues faster, reducing downtime and increasing customer satisfaction.
- Availability of meaningful information at all times has contributed to creating a much more transparent and cooperative testing environment for Migros Bank AG.

Unified Functional Testing Drives Test Automation for Migros Bank AG

Migros Bank AG is a Swiss universal bank and full subsidiary of the MGB cooperative group. In an effort to improve software quality, the management at Migros Bank made the decision to insource its application testing, which had previously been outsourced to an external service provider. The bank assembled a team of 12 users—not specialized IT professionals, but rather banking experts with a thorough understanding of the bank’s business processes and flows—and entrusted them with the task of regression testing of the core banking application and its key peripheral systems and interfaces. Due to the large scope of testing (each quarterly update can contain upward of 2,000 changes), the team needed an automated testing solution that would document all test cases, both manual and automated. Today, Migros Bank uses an integrated set of software quality solutions from Micro Focus to make sure that all their test cases are documented, whether they have been run manually or automatically. Functional tests are created on a component basis using BPT and, where appropriate, are automated using Micro Focus Unified Functional Testing (UFT).



Business Results:

- Improve organization through standardization of test plans and scripts
- Tie testing to business process requirements
- Redirect resources from manual testing to other high-value initiatives
- Automate regression testing to reduce testing costs
- Leverage the knowledge of non-technical SMEs to generate test scripts
- Facilitate efficient business operations and high quality of service to customers

BPT Helps American Water Automate Regression Testing for Complex, Custom, Frequently Updated SAP Systems

American Water (AW) is a heavy user of SAP, with many customized and frequently updated modules. Due to the massive volume of business processes that run on SAP, AW's testing team simply couldn't keep up with manually testing the entire application suite every time a component was modified. AW aimed to automate regression testing using BPT as part of an integrated suite of Micro Focus solutions. AW is also using Micro Focus solutions to gather metrics on cost and time savings.



Business Results:

- Fourfold increase in QA teams' productivity
- Reduced script maintenance costs
- Accelerated patch delivery timelines: regression testing reduced from approximately three weeks per cycle to just one week
- Frequent transition and lighter patch releases to better respond to customer needs
- Quick deployment—six months instead of two years—of 500 automated scenarios
- Improved business visibility of testing by generating automated reports
- Significant increase in overall quality of the company's ERP product, improving Sage's competitiveness and business reputation

BPT Helps Sage Optimize Testing Processes to Enhance The Quality of Its Flagship ERP Application

Thousands of businesses rely on Sage's ERP applications to support their core processes, and the software vendor strives to implement the highest standards to enhance quality of their systems. Sage relies on Micro Focus software and its partner ValidIT to increase quality efficiency and support its move to Agile methodology. Today, Sage has 18 scrum development teams working on different parts of X3 product. Each team has its own delivery planning, applying Agile development sprints, with component testing incorporated into the core of each sprint. For integration testing and other aspects of functional and regression testing, Sage maintains a dedicated QA team. Business-focused QA analysts work alongside the technical experts on building and maintaining automated test scenarios. BPT has brought significant efficiency and productivity benefits for Sage, resulting in a three to four times increase in the productivity of the QA team. Component-based automation also helped the company reduce maintenance costs. When a change is made to an application interface, the script only needs to be modified in one location, compared to dozens of scripts that required maintenance using the old approach and toolset.

Business Results:

- Increased ROI: the team was able to conduct more tests with same amount of time and staff, and release better quality applications.
- Deploy repeatable, shareable assets using BPT, including 1,000 reusable components that save time and cost—components can be dragged and dropped to make up new scenarios with minimal rework.
- Automate 98 percent of all key deposit transactions (high rate for the financial services industry).
- Automate 54 percent of all key SAP transactions.
- Automate 90 percent of critical transactions and scenarios identified and signed-off by business.
- Improve quality of SAP and other applications.
- Establish Testing Center of Excellence (TCoE) to standardize QA methodology and framework—consistent project configuration, metrics, and enforcement across all projects.

Home Trust Company: Leading Canadian Financial Services Company Increases Application Quality and Builds a TCoE Using Micro Focus Software

Home Trust Company (HTC) offers a wide range of financial products including mortgages, Visa cards, deposits, and retail credit services. HTC's QA team has been plagued with an array of rather common QA challenges, including lack of consistent methodology and metrics across projects; low and inconsistent utilization of QA toolsets; no centralized testing asset library; and low levels of test automation. With the help of an integrated Micro Focus toolset, HTC has successfully created an overarching program to integrate all QA aspects, improve reuse of testing assets, and increase automation using BPT to boost testing efficiency.



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Business Results:

- Modernize 200+ U.S. branch offices' back-office systems by consolidating separate platforms and standardizing on Oracle E-Business Suite
- Reduce test creation time, condense testing cycles, and improve the use of available testing resources
- Improve test lab utilization rates with unattended script runs during non-business hours
- Increase application reliability through the reuse of automated scripts for regression testing
- Enable phased rollout in three-month intervals
- Increase testing scope and coverage
- Reduce costs

ThyssenKrupp Elevator Americas: Leading Elevator Company Leverages Micro Focus Solutions to Modernize 200+ Branches' Back-Office Systems

ThyssenKrupp Elevator Americas is the largest producer of elevators in the Americas. Together with a strategic partner, Sky IT, the company set out to consolidate its back-office IT systems around Oracle E-Business Suite. To support a large-scale modernization initiative, ThyssenKrupp needed a more efficient testing strategy, so it relied on BPT to automate a portion of its extensive repository of manual test scripts. Sky IT helped ThyssenKrupp Elevator Americas create an automated test framework, train staff on building reusable component-based test cases, and automate a large portion of regression tests.



Business Results:

- The search algorithm is used across the company's 10 QA teams, each of which maintain test scripts for over 100 objects.
- The automated framework allows the Cornerstone team to quickly and more reliably introduce robust functionality on the company's posting page, enabling customers to form teams, create communities, share live feedback, and increase the value or utilization of their Cornerstone solutions.

BPT Helps Cornerstone Reduce The Time Required to Test Web Pages Where Clients Post Comments and Provide Product Feedback

Objects can appear on a single page multiple times in various locations. The Cornerstone QA team found it extremely time consuming to create individual test cases to validate objects based on where they are located on a page. The team turned to BPT to reduce the development and maintenance work associated with capturing and maintaining an object repository.

BPT software has the ability to define a number of custom parameters for each object, which helps identify an object on the page, even when it appears multiple times in different locations. With BPT, the Cornerstone team only has to create one object for testing—regardless of how many times this element appears on a page.



Business Results:

- Deploy user-friendly, robust lifecycle management solution accessible to business employees
- Automate regression testing
- Plan and execute tests globally
- Define, build, and deliver applications across the software development lifecycle (SDLC)

Zebra Technologies Corporation: Print Technology Leader Uses Micro Focus Software to Roll Out Global Platform, Support Acquisition

Zebra Technologies Corporation manufactures and sells marking, tracking, and printing technologies such as thermal bar code label and receipt printers through a network of resellers. The QA team provides support for a number of internal applications as well as externally facing sites where customers can download drivers and obtain support. In recent years, Zebra launched a modernization initiative to consolidate more than 200 business applications to less than 10, including strategic use of ERP software. The company also went through an acquisition, emerging as a \$4 billion USD global enterprise. Throughout these and other strategic projects, Zebra Technologies Corporation relied on Micro Focus solutions to implement a lifecycle management approach for their application delivery and automate the high volume of regression tests needed to support the transformation effort.

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www.microfocus.com/bpt

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