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CONFORMIQ 360° TEST AUTOMATION FACT SHEET

Higher Performance | Better Software Quality | Faster Time to Market

INTRODUCTION

In today's digital age, enterprises are being compelled to implement new age technologies to accelerate software releases. Even so, with mounting cost pressures and time to market pressures, what to automate and how much to automate still remains a difficult decision! A technology that makes automating the automation straight forward is needed to eliminate this decision.

Most enterprises strive to find the perfect balance between the ultimate goals of testing, i.e. highest software quality and lowest testing costs. These goals present opposing perspectives. Can both be accomplished?

The answer is yes - by using the right technology.

Conformiq is a leading software technology company, focused on automating test automation, functional testing design and software quality. Conformiq's Intelligent Test Automation solutions are designed to automate the entire testing processes from design to generation to execution with minimal human intervention. Our solution adapts quickly to new product requirements, eliminating the time required for laborious test case creation, test execution & script maintenance during short sprints. Thus, enabling High Quality@Speed through a no-touch, script-free testing platform.

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CONFORMIQ 360° TEST AUTOMATION OVERVIEW

Conformiq 360° Test Automation is a continuous testing solution that integrates automation of everything from requirements capture to test execution. The solution leverages AI technology to automatically think of and generate optimized test cases, fully document test coverage, plus generate the executable test scripts and test validations for automated execution in the platforms of your choice.

The solution delivers the ability for in-sprint automation addressing the challenges of adopting agile development or using a Behavior Driven Development (BDD) approach by enabling testing to be done in each sprint, not just component testing but integration testing with the previous builds. Defects are found immediately, not weeks later requiring additional "fix it" sprints.

Conformiq 360° is composed of two tools plus their third party tool interfaces. These tools are Creator for designing and generating test scripts and Transformer that enables easy execution of these scripts or of existing test cases. The tools work together or can be purchased and used independently.

CONFORMIQ CREATOR

Conformiq Creator converts graphically captured business requirements of the application flow (NOT the test flow) into optimized test cases for automated or manual test execution. This difference is critical as Creator eliminates the manual effort of designing the test case flows graphically. Instead, it thinks of and generates the tests automatically!

The solution can be used for testing enterprise IT applications through their graphical user interfaces (web, desktop, mobile, etc.), web service APIs (REST, SOAP), mainframe, backend, or other operations including testing these different systems in combination. Creator's easy to use business requirement modeling feature also allows non-testers like business analysts to iteratively create models of functionality to be tested and document test coverage and then have test architects add interface operation details as they become known or are decided. This provides a way for agile development teams to shift left to spread the modeling across the stages of development and then jump directly to automated execution with no further manual involvement.

Testers no longer have to wait for data values to write their test scripts. Creator users have the option of having the tool itself automatically generate appropriate data needed for the generated test cases and scripts. Users can then replace this data with production data at execution.

Creator generated test cases and test scripts are automatically optimized for various user selected types of test design for fully automated test execution along with their test step validations! Creator also seamlessly integrates with application lifecycle management and test execution tools for inserting existing requirements and test plans into the models that documents and ensure full traceability and known application coverage. Creator also tightly couples with virtually all test execution platforms so the generated scripts are directly executable, eliminating the slowest part of testing. Direct script generation greatly increases overall testing efficiency. With this seamless end to end automation Creator uniquely enables true Continuous Testing (CI) / Continuous Testing (CT) in DevOps and agile environments.

CONFORMIQ TRANSFORMER

Conformiq Transformer is a scriptless keyword driven test automation framework that integrates with Creator. It enables the transformation of tests for automated test execution without programming for both new and existing test cases. Existing GUI operations can be "screen scraped" into models for Creator use. When combined with Creator, users get a seamless integrated CI/CD process leveraging their testing tools of choice for automated test case design, creation, execution, management, and validation with embedded Selenium or user supplied Micro Focus UFT. Used alone, Transformer will convert existing test cases directly into automated test execution.
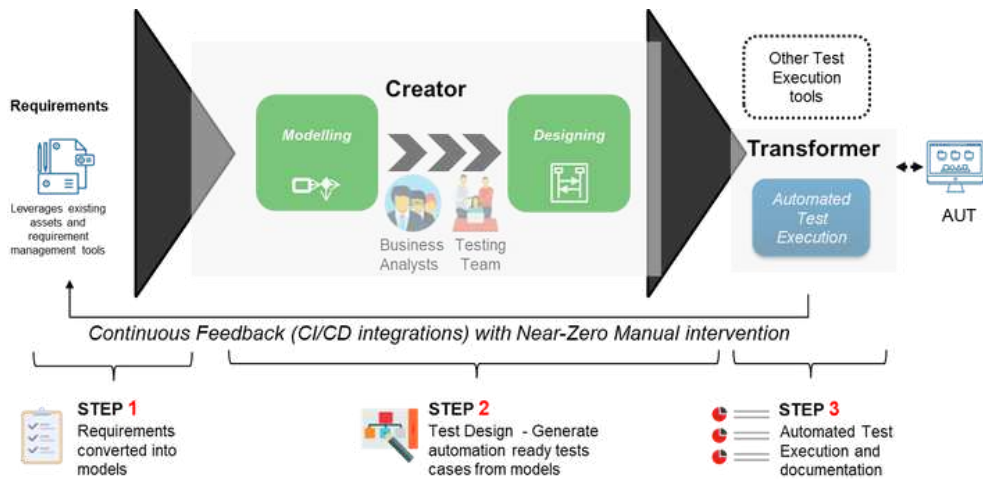

Fig.1 Process diagram of continuous integration and testing with full test automation

CONFORMIQ REVERSE ENGINEERING

Part of Creator is Conformiq's AI based reverse engineering technology that is used to reduce modeling efforts by eliminating test duplication and automatically constructing optimized models from existing business and test assets in various formats to serve as the basis for modeling additional application functionality. This is especially important when legacy applications will be enhanced so the new enhancements can actually be tested with the previous application functionality. Creator can import manual test cases from Excel, ALM test plans, Micro Focus Business Process Tests (BPT), Gherkin feature files, Visio diagrams, Business Process Models and more to generate models of application operation.
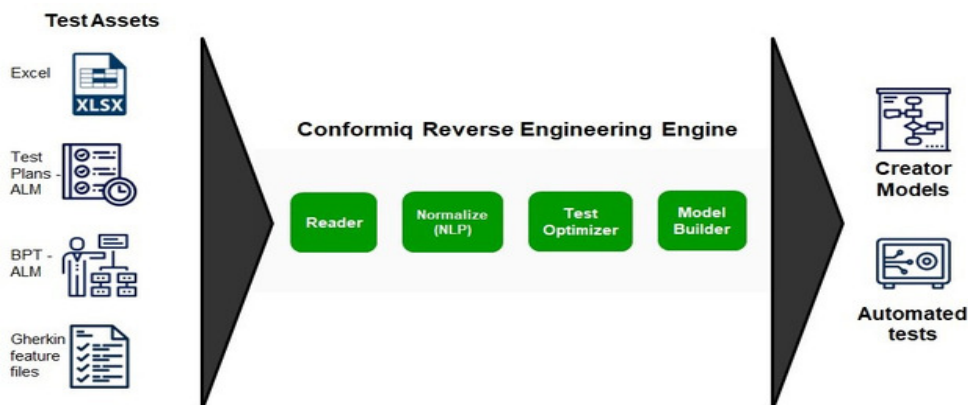

Fig.2 Reverse engineering process flow

TEST GENERATION AND AUTOMATION

"Test case optimization is not key, test automation is!" explained a testing director of a global bank. Generating scripts for automated test execution should be the goal of intelligent test design because that delivers by far the most gain in overall testing efficiency.

Once a graphical model of the expected system operation is created from existing assets and linked to application requirements, everything else is automated. Creator automatically designs and generates the test cases and test data, if desired, plus graphical traceability of requirement coverage and a graphical representation of each test case's route through the model for always current documentation. With every model change Creator automatically provides impact analysis highlighting which test cases are no longer valid, which remain unchanged, and which are new. Creator even generates unique understandable test case names. Generated test cases can be seamlessly uploaded as test plans to ALM tools, and exported to Conformiq Transformer or any other test execution tools including Selenium based solutions, Micro Focus UFT and Lean FT, Tricentis Tosca, Robot, Cucumber, EggPlant, etc., plus testing services company and customized end user platforms for automatic test execution.

CONFORMIQ IN AGILE/DEVOPS ENVIRONMENT

Creator enables and accelerates organizations to advance to continuous testing by providing extensive integrations with requirement/user story tools including Micro Focus (formerly HPE) ALM, CA Rally, Atlassian JIRA, IBM DOORS, and others. Requirements, user stories, and other business assets can be used to create but also annotate modeled functionality to be tested. Conformiq Creator's integrations then automate the tracking of requirement coverage across all phases of application development. Conformiq's support for modeling at the business requirements level of detail enables business analysts or testers to easily model features having less concrete requirements. Creator's unique ability to then incrementally add user interactions and automatically turn them into test step scripts for automated execution sets it apart from all other test design tools. The key is Creator's end-to-end automation so there are no manual steps that would limit or slow continuous testing.

CLIENT BENEFITS

Approximate number of test cases – 3160

TRADITIONAL APPROACH (MANUAL)

Test design effort (including requirement analysis, scenario creation, test script draft)– 25,280 hours

Cost of test case design - $1,643,200

USING CONFORMIQ (AUTOMATION)

Modelling and test design efforts – 6500 hours

Cost of test case design - $498, 084

70%

Reduction in test case design cost and effort

CONFORMIQ VALUE

The value delivered by Conformiq 360° Test Automation is based on the double benefits of known test coverage to minimize defects together with reduced testing costs from a faster overall testing process. Conformiq uniquely delivers the capability for the enterprise to move testing to the digital age.

01 All about automating manual processes – starting with Test Design

02 Applying intelligent algorithms to generate optimized test cases

03 Model creation from existing business, test, and other types of assets

04 Applying AI techniques to simplify the path to automated test execution

05 Single click automation with no programming skills required

06 Continuous automated testing in agile development processes with CI/CD

Albert Einstein said, "The definition of insanity is doing something over and over again and expecting a different result." If your current testing is too slow or too costly then try moving to new age testing technology, you won't return to your previous methods.

BLOOR RESEARCH

"Conformiq is undoubtedly one of the leading vendors of automated test case solutions."

A GLOBAL LOGISTICS SOFTWARE COMPANY

"Because Conformiq automatically does all the work, it easily scales to real world complexity. Once the model is created, everything else is AUTOMATIC."

HEALTHCARE SOFTWARE COMPANY

"We thought the Conformiq tool had the greatest chance at being a success for us. This is based on getting people to see the purpose, and see resulting test time efficiency, and ease of use."

GLOBAL BANK

"With Conformiq we saved $8M, automated 92% of our test cases, and reduced product testing costs from 30% to under 12%."

Start your Test Automation journey today! Write to sales@conformiq.com for any inquiries.