



## Case Study

Testing Automation Reduced the Test Suite Maintenance Cost by 90%

# Testing Automation from Microexcel Reduced the Test Suite Maintenance Cost by 90% for Europe's Leading Financial Services Specialist

## Quick Facts

**Industry:** Financial Services

**Location:** Germany/UAE/Singapore

**Employees:** 65,000

**Revenue Range:** 1B – 5B

## About the Client

The client is a global financial services and technology company headquartered in Aschheim, Munich, Germany. The company specializes in payment processing and issuing services.

## Background

## Solution

## Benefits

### Background/Challenges

- ▶ Critical defects leaked into post-production
- ▶ Regression testing was very time consuming
- ▶ Huge amounts of transactional data required extensive test coverage
- ▶ Use of multi-level sinking and Ajax widgets in the application increased complexity in test automation
- ▶ Large set of business rules increased the number of test scenarios required to ensure optimum test coverage

### Solution

- ▶ Designed robust, scalable, and configurable Selenium automation framework
- ▶ Built automation scripts across applications, including Core Money, Core Admin, Case Management, and Self Service
- ▶ Integrated the developed automation scripts with Test Management tool (JIRA and Zephyr)
- ▶ CI enabled automation framework using Jenkins
- ▶ Built 1,000 end-to-end test automation scripts
- ▶ Scripts execution on multiple browsers (IE, Firefox, Chrome, Opera and Safari)
- ▶ Customized HTML reports

### Benefits

- ▶ Generated savings of 70% on manual test execution time
- ▶ Robust and reusable test automation approach reduced the test suite maintenance cost 90%
- ▶ Removed the need for manual sanity testing of build with complete automation of all the sanity test cases
- ▶ High quality testing resulted in early defect detection

# Automated Testing Suite

decreased testing execution time by 70%

## Quick Facts

The client required building an automated regression suite to ensure maximum test coverage and proper functioning of all business processes in the new test builds.

### Environment

- ▶ **Existing Application Environment:** Microsoft .Net , Microsoft SQL Server , JAVA
- ▶ **Applications :** Core Money, Core Admin, CMS, and Self Service
- ▶ **Testing Types:** Test Automation

### Challenges:

- ▶ Lack of visibility of product quality ahead of the release into the production and continuous changes during
- ▶ Long test cycles due to lack of test automation of regression cycles
- ▶ Use of multi-level sinking and Ajax widgets in the application
- ▶ Integrate the test management tools to improve scheduling capability to run test scripts on various environments
- ▶ Covering end-to-end business flow in the automated test suite and have compatibility with different browsers
- ▶ Monumental amounts of transactional data required extensive test coverage
- ▶ Ensure proper functioning of all business processes in new builds

With these challenges and key objectives in mind, the client sought a partner to assist in achieving each of them.

## Background

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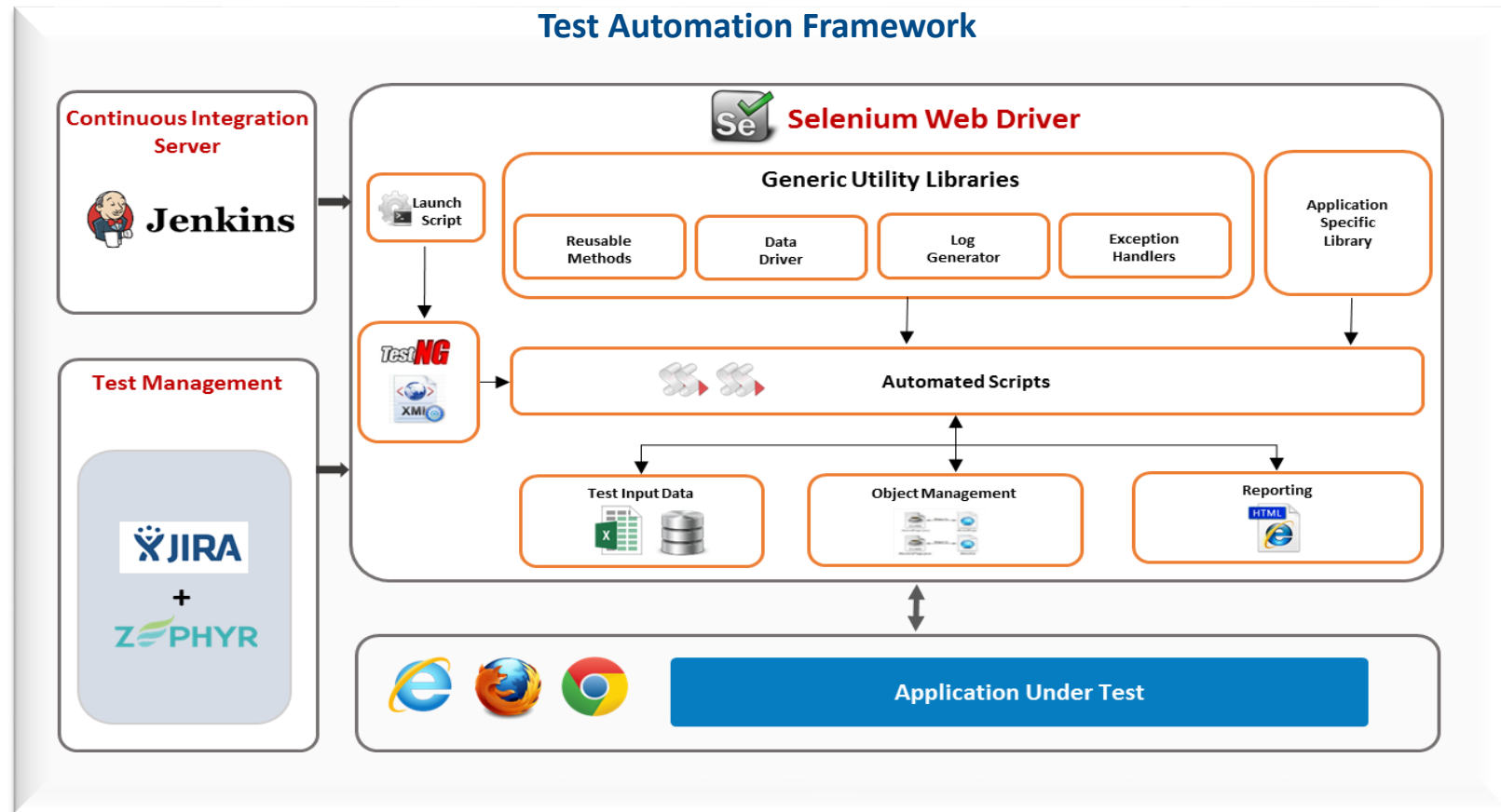
- ▶ Implemented robust automated test suite, which covers end-to-end test scenarios of applications for Business Process Testing and Regression Testing, including:
  - ▶ Core Money
  - ▶ Core Admin
  - ▶ Self-Service
  - ▶ Case Management
  - ▶ Core Issue
- ▶ Developed reusable application specific functions and generic reusable functions for ease of maintenance and reusability
- ▶ Built 1,000 end-to-end test automation scripts across various applications of client
- ▶ Created filed validation scripts across various tabs
- ▶ Customized HTML reports with summary, details, and screenshots for failed test cases
- ▶ Test execution on multiple browsers, including:
  - ▶ Internet Explorer
  - ▶ Firefox
  - ▶ Chrome
  - ▶ Opera
  - ▶ Safari

**Built 1,000 End-to-End Test Automation Scripts**

across various applications of the client

## Solution

- ▶ Implemented JIRA with Zephyr plugin as Test Management tool for maintenance of test case
- ▶ Developed a plug-and-play automation framework that is portable across multiple applications, and supported Ajax
- ▶ Integrated the automation framework with Test Management tool and continuous integration tool Jenkins



Quick Facts

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## Benefits

Generated savings of 70% on manual test execution time

Robust and reusable test automation approach reduced the test suite maintenance cost 90%

Reduced 60% total testing cost by leveraging complete offshore engagement model

Reduced post-production defects by 40%

Reduced infrastructure resource requirements with setup for test execution with real-time reporting and an automated one-click defect reporting solution

Established QA metrics for release sign-off

For more information,  
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## About Microexcel

Microexcel Inc., is a global leader in providing innovative and comprehensive software solutions and services. Founded in 2001, Microexcel merges people and technology to deliver the most value and return on investment for customers. With headquarters in Secaucus, NJ, and offices worldwide, Microexcel provides full services and support to clients in the areas of Microsoft, SAP, Quality Assurance and Testing, IT Infrastructure, Open Source/ Liferay, Staffing, and Interactive Services. Microexcel ISO 27001:2013 and ISO 9001:2015 certified and is also a New York and New Jersey state Certified Minority Owned Business Enterprise.



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