Rapid Test Automation Reduced Testing Time by 800% for a Boston-based Technology Company

Industry
Hi-Tech and Test Equipment Manufacturing

Technologies
Oracle EBS, HP QTP, Oracle PL/SQL

Business Gains
Improved testing process speeds up software release, increases reliability, and enhances business efficiency

Customer:

The customer is a Boston-based technology company that has excelled in designing, manufacturing, and selling test equipment since 1961. They have over $2B in annualized revenue and operate in 20+ countries worldwide. Their IT infrastructure comprises Oracle EBS and other packaged and home-grown applications integrated with the Oracle application suite.

Challenge:

The customer faced numerous challenges due to their monthly release management cycle, which required them to manually test more than 382 transactions grouped under almost 20 end-to-end business processes. The entire testing process, which included data mining, execution, data management, and audit trail maintenance, was carried out manually. The process was time-consuming, error-prone, and heavily reliant on the expertise of individual team members.

The IT department had limited scope to respond promptly to changes or patches, and updating the audit trail was daunting due to periodic refreshes of test instances. Maintaining the manual "cookbooks" for regression testing became increasingly challenging, and employee turnover in the testing team posed a significant management challenge.

ATTEST

Solution:

Attest implemented an automated test orchestration system to automate all steps of the customer's critical end-to-end business processes.

The Attest solution included the following:

- ✓ A repository of over 300 business transactions, including standard Oracle Application transactions and custom transactions using HP QTP TM and Oracle PL/SQL TM.

- ✓ Flexible component architecture for quickly adding or removing transactions.

- ✓ Data mining capability for maintaining a repository of test datasets.

- ✓ Ability to reuse multiple end-to-end processes.

- ✓ Simultaneous testing for multiple initiatives.

Attest's team of experts, consisting of five offshore developers, one offshore PM, and one on-site part-time PM, completed the project in just five months.

The ATTEST Solution

Create Automation components	Assemble Test Data	Create Test Automation Roles	Schedule / Run Tests	View Results
1. Identify end-to-end scenario	1. Create Date Queries	1. Set up roles	1. Select Test Environment	1. View Test Results in a browser
2. Create Functions	a. Static - Excel spreadsheet	2. Associates roles with users	2. Schedules Tests for a later run (or) Run Tests immediately	2. Create your own reporting dashboard
3. Create Scenarios	b. Dynamic - SQL queries	3. Create application signatures		
4. Create Test Suite	2. Create Data Sets combining Test Suites & Test Data	4. Associate signatures with test functions		

Results:

The implementation of Attest's solution provided the following benefits to the customer:

- More than 300 individual business transactions - both standard and custom - were automated using HP QTP TM and Oracle PL/SQL TM.

- Testing time was reduced from 30 man days to just 30 hours, resulting in an 800% increase in efficiency.

- Implementing Attest solution led to a reduction of over 40% in testing costs within the first six months.

- Attest allowed users to visualize end-to-end flows and understand operations at each step, resulting in shorter project timelines and release cycles.

- The flexible architecture allowed for the testing of multiple projects concurrently without recreating scenarios.

- A single portal enabled users to accomplish all testing operations.

- The complete audit trail for all transactions, including report output and concurrent program log files, was stored and available for viewing, providing greater confidence and agility to the IT organization.

- Numerous out-of-the-box features were available.

Tools:

The Attest solution covered the following application modules during implementation:

Release 1

Planning to Cost Cycle - Discrete (Standard)

Order to Cash - ATO (STD JOB)

Order to Cash - Drop Ship

Order to Cash - Internal Sales Order (ISO)

Order to Cash - RMA

Procure to Pay - Standard Purchase Orders (Inventory)

Procure to Pay - Inspection Scenarios

Release 2

JE to GL posting

Period Closing

Order to Cash

Procure to Pay - Releases against BPA

Schedule to Build - Discrete (Non-Standard)

Schedule to Build - Discrete (Standard with OSP)

Release 3

Cost Management Process

Oracle Custom and Standalone Transaction - (Inv Transactions)

Oracle Custome and Standalone Transaction - (ABC analysis and cycle counting)

Planning to WIP Process Cycle

Oracle Engineering Order (Bills)

Planning - Slotting

Taxware Master Check-up

Release 4

Procure to Pay - Standard Purchase Orders (Closing PO)

Procure to Pay - Release a Planned Order for a Buy item from the Planner Workbench

PO Scripts

Warehouse Management System

Supply Chain Planning

Invoice to Payment

Fixed Assets