Next-Generation Testing with Oracle Application Testing Suite

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Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle’s products remains at the sole discretion of Oracle.
Are Your Applications Up-To-Date?

• Today’s world is moving fast and you need to adapt to
  – New business models
  – New markets
  – New channels for customer/partner/employee interaction
  – Application & infrastructure changes
    • New application versions
    • Patches/Security patches
    • New features provided by application vendor
    • Customizations based on your business requirements

• Are you introducing changes in a safe way?
Why Are Applications Not Updated or Tested Adequately?

Testing costs are too high resulting in fewer patching/updates or no/limited testing

Testing is often done by subject matter experts—preventing them from doing their normal jobs

The typical cost of testing for an upgrade or new implementation

Not patching or updating your applications may introduce security risks and you to lose competitive advantage

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How Can You Apply All Changes You Need in a Secure Way?

• Utilize specialized tools
  – You can do more testing in less time

• Next Generation Testing is not about methodologies, but intelligent and application aware testing tools and to piggy-back on application vendor knowledge

• You need
  – Application aware tools
  – Pre-built vendor testing content
  – Simplified processes and testing
80%

Oracle Application Testing Suite can reduce test automation efforts by 80% compared to other tools.
Oracle Application Quaility Management

Oracle Test Manager
Oracle Functional Testing
Oracle Load Testing
J Developer

SQL Performance Analyzer
Database Replay
Application Replay

Data Masking
Data Sub-setting
Virtual Data Cloning

Testing-as-a-Service

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Oracle Application Testing Suite

The testing solution for Oracle applications

- **Oracle Functional Testing**  
  (Suite for Oracle Applications)  
  - Functional & regression testing  
  - Supports Web & Oracle Applications

- **Oracle Load Testing**  
  (Suite for Oracle Applications)  
  - Load & Performance style testing  
  - Supports Web & Oracle Applications  
  - Smart integration with EM Diagnostics

- **Oracle Test Manager**  
  - Test Process Management solution for  
  - Test Planning  
  - Requirements  
  - Test cases  
  - Defects tracking  
  - Reporting
Optimized for Oracle Applications Testing

Oracle Application Testing Suite Accelerators

- Oracle applications and technology accelerators for better, application aware and more efficient testing
  - Fusion applications
  - E-Business Suite
  - Siebel
  - JD Edwards E1
  - Peoplesoft
  - Hyperion
  - WebServices
  - Oracle Database
Oracle Functional Testing (Suite for Oracle Applications)

Functional & Regression Test Automation

• Helps to automate your functional testing and improve application quality
  – Unified scripting platform
    • Create both Functional and Load test scripts
  – Human readable scripts
  – Record/playback & Keyword scripting
  – Robust object identification
  – Scripts extendible with JAVA
  – Easy debugging
  – Supports SOA, web and Oracle packaged applications testing
DEMO
Record/Playback scripting
Oracle Application Testing Suite – Record/Playback Scripting

Benefits according to Oracle E-Business Suite QA Team

• Robust scripts → less script maintenance for OATS record/Playback scripts
• Less time required for script stabilization
• 50% over all reduction in scripting time compared to HP
  – 20% less effort for stabilization of scripts
  – 30% less effort working with check-points
  – 50% less effort for debugging
  – 80% less effort for parameterization
• Easily extendible using Java
Oracle Functional Testing – Flow Builder

Functional & Regression Test Automation

• Unique Keyword Driven Testing that allows non technical testers to participate in test automation in a way never possible before

• Reducing script creation efforts for EBS with up to 80% compared to HP
  – 5600 Pre-built EBS components
  – 400 Pre-built EBS script/flows

• Drag-n-drop components to build test automation scripts

• Test automation can begin before application development is finished
Oracle Flow Builder – What Are Components?

Keyword = User action (Click, Select, SetText etc)

Object (input field, button etc)

Component

Keyword + Object
Keyword + Object
Keyword + Object
Components – Flows – Test Automation Scripts

Flow

Component

Keyword + Object
Keyword + Object
Keyword + Object

Component

Keyword + Object
Keyword + Object
Keyword + Object

Oracle Functional Testing Script

Script - EBS12_Financial_-_Account_Analysis_and_Drilldown,

- Initialize
- Run
  - [1] LOGIN
  - [2] BROWSE GENERAL LEDGER
  - [3] POST ANALYSIS DATA
  - [4] BROWSE SEARCH RESULT
  - [5] LOGOUT
- Finish

User data
“...We established a framework for Oracle EBS script creation and found Flow Builder provides significant time savings.

...We have adopted Flow Builder as our go-forward solution for automation and plan to expand its use with other Oracle products we support. We are excited about the possibilities with Flow Builder and are energized for the journey.”

— Jake Westphal, IT Senior Manager, First American
DEMO
Keyword driven scripting
Oracle Test Manager

Test Process Management

• Helps you keep track of your requirements, testing efforts and defects
  – Common repository for all testing assets
  – Web-based interface
  – Supports manual and automated tests
  – Increase visibility of app readiness
  – Test execution scheduling
  – Reporting
Oracle Load Testing (Suite for Oracle Applications)

Load & Performance Test Automation

- Helps you to validate scalability of your applications as part of your patching, upgrades or before adding more users to your applications
  - Easy to use web interface
  - Runs on Linux and Windows
  - Scalable automatic content validation
  - Comprehensive performance monitors
  - Deep level diagnostics integrations
  - Supports Oracle EM private cloud
Integrations to Oracle Enterprise Manager Diagnostics

• Oracle Load Testing integration with Oracle Diagnostics Pack for Oracle databases for meaningful deep level diagnostics
  – Identify database performance bottlenecks
  – Estimation of impact of problem(s)
  – Drill down to root cause
  – Gives recommendations & suggestions on how to address the discovered problem(s)

• Get ADDM & AWR reports directly in the load testing console
Are We Just Testing?

- As much as 50% of the testing time can be spent on non-testing activities
  - Requiring hardware
  - Deploying and setting up the application under test
  - Deploying testing tools
  - Apply patches and re-test
Oracle Testing as a Service (TaaS)

Private cloud testing platform

- Oracle TaaS allows customers to
  - Create private testing clouds
  - Automatically provision application under test to the private cloud
  - Automatically provision testing tools and test assets (scripts, scenarios, etc)
  - Orchestrate the testing process
  - Utilize server capacity more efficiently
  - Reduce testing time
Oracle Testing as a Service
Private testing cloud platform
Oracle Application Testing – Allowing You To Become Agile

• Specialized testing tools can
  – Simplify testing
  – Reduce test scripting efforts
  – Reduce test script maintenance
  – Help you to easier identify issues
  – Help you to become more agile and update your applications in a safe and agile way
  – Help you to not loose your competitive advantage!
Oracle Application Testing Suite @ Oracle

Standard Test Automation Solution at Oracle

• Standard solution for applications testing at Oracle
  – Over 3000 daily users
  – 168 different QA & Performance Teams
    • Fusion Applications
    • E-Business Suite
    • JD Edwards
    • ...
  – Fusion Applications QA have over 100,000 Oracle Functional Testing scripts
Facebook

Facebook is using Oracle Application Testing Suite

Company Profile
- Largest social media network with 1.28 billion users
- 7100+ Employees

Testing Challenges for Oracle E-Business Suite @ Facebook
- Complex testing due to diverse transaction tax requirements
- Frequent application changes requires test automation

Oracle Application Testing Suite Products
- Oracle Functional Testing Suite for Oracle Applications
- Oracle Test Manager
Testing at Facebook

Oracle E-Business Suite and Application Testing Suite

• Original implementation failed – 40 hard coded scripts
• Currently created 50 scripts covering 200 scenarios and 1200 ‘Events’.
• Happy Path/Path to Mordor
• Data creation for projects became a big win for us
  – 1300 PRs → 1000 POs → 200 invoices → 11 hours
• Load testing – Took down UAT 😊
• Bug catching – Adoption by development teams
Facebook – How We Do IT

• Every field in every form is parameterized or SQL based – more time upfront, but easier to change
• E2E Business Streams constitute 90% of scripts
• iProc → Approve → PO → Receive → AP → FA → GL
• Approvals using real names important and difficult
• Validations for taxes
• Maintenance is crucial
Facebook
P2P – End-to-End Test Automation Flows
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Hardware and Software
Engineered to Work Together