The New Economics of SAP
Quality Assurance Testing

Lynn Shourds
Sales Director
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Neil Kosman
Brad Germany
Agenda

- Challenges
- Modern Approach to Test Automation
- Significant Benefits of Test Automation
- A Solution for Test Automation
The Challenge

- Increasing complexity in SAP landscapes
- High rate of change—and getting faster
- It’s common to be multiple upgrades / enhancements behind
- Migration to the cloud and mobile computing stretching resources even further
- Validating changes consumes 40 cents of every dollar spent supporting SAP

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What Creates the Challenges

- Mapping the complex relationships between the business processes and the underlying application in order to determine the impact of a change prior to implementing it.
- Managing and validating application upgrades/updates to minimize disruptions and to lower risk.
- Reporting on the progress of lifecycle activities for the extended project team and management.
- Recording and documenting all authorized changes for a complete and detailed audit trail for IT audit and/or compliance initiatives.

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Current Model needs to Change

- **Manual Testing is a Burden**
  - Limited Resources
  - Manual Testing can’t keep pace
  - No reusability means less coverage
  - Time/Turnover causes loss of knowledge
  - Multiple skill sets required
  - Limited visibility into test coverage

- **Traditional Methods are Too Costly**
  - Script-based solutions require many customizations and an army of consultants/programmers
  - Maintenance & Updates require significant scripting / re-recording
  - Writing code to test code is not the right answer

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Why Automate SAP Testing?

- Typical lifecycle process required for deploying application changes is people and time intensive = 2 weeks to 6 months

- "One-third of the cost of a package implementation is being spent on software quality issues, and testing accounts for 40% of maintenance efforts.,” Thomas Murphy, Gartner

- Be more agile
- Spend less money “keeping the lights on”
- Just in time documentation of business processes
- Reduce risk
- Streamline compliance

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Test Automation – It’s not about quantity

“I have 1000’s of manual test cases from my original implementation. Should I simply automate them all?”

- Your 1000’s of test cases are based on functional / departmental scenarios, not end-to-end business processes
- Breakpoints and handoffs between functional areas / departments are where most opportunities for error occur
- Functional / departmental testing does not give a true representation of the overall flow of business information and business rules
- Automating 1000’s of manual tests will be extremely time consuming and will not produce a better end result

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The Business Process View

Order to Cash
- Standard Order Processing
- Credit Memos
- Quotations
- Intercompany Transfer

Procure to Pay
- Procurement
- Intercompany Purchase
- Stock Transports

Plan to Produce
- Discrete Make to Stock
- Kan Ban
- Replenishment
- Materials Resource Planning

Warehouse Management
- Cycle Counting
- Stock Transfers
- Delivery
- Asset Processing

Supply Chain Management
- Forecasting
- Transportation Planning
- Picking and Packing

Hire to Retire
- Hiring
- Termination
- Rehire
- Payroll
- Time Management

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The Business Process View
Business Process Validation (BPV)

- Designed around how software is used
- Focuses on areas of greatest risk
- Rates defects by operations impact
- Is more efficient

“I need to make sure that critical business processes continue to work when I make changes”
# Business Process Validation

<table>
<thead>
<tr>
<th></th>
<th>Traditional QA</th>
<th>BPV</th>
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<tbody>
<tr>
<td><strong>What assets are built?</strong></td>
<td>Test Cases&lt;br&gt;• Based on system design, requirements, defects</td>
<td>Business Processes&lt;br&gt;• Based on critical business processes, risks to the business</td>
</tr>
<tr>
<td><strong>What is the scope?</strong></td>
<td>Functional Areas</td>
<td>End-to-End Processes</td>
</tr>
<tr>
<td><strong>What is measured?</strong></td>
<td>Software Defects&lt;br&gt;• System failures</td>
<td>Operational Issues&lt;br&gt;• Process failures, performance, and the end user experience</td>
</tr>
<tr>
<td><strong>What is the objective?</strong></td>
<td>Find Software Bugs</td>
<td>Protect Business Processes</td>
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<tr>
<td><strong>Who is the customer?</strong></td>
<td>Development Team</td>
<td>Business Unit</td>
</tr>
<tr>
<td><strong>What is the value?</strong></td>
<td><strong>Software Quality</strong></td>
<td><strong>Operational Assurance</strong></td>
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People

Executive Sponsor
- Understands the value of automation
- Wants to be more agile: Faster innovation & better business process execution
- Wants to realize cost savings

Automation Champion
- Responsible for delivering the ROI
- Measured on success of automation

Business Users
- Have domain expertise
- Understand how business processes are supposed to work

Testing Professionals
- Have testing expertise
- Can define and implement an overall testing strategy & plan
Worksoft Solution

- Worksoft is the industry’s top ranked test automation platform
  - Designed for business analysts and subject matter experts
  - Easy to use, code free and no programming
- Automates end-to-end testing across your SAP Ecosystem, including cloud, mobile, and portal technologies — for speed and agility
- More than 150 premier global companies and nearly half of the Fortune 100 have adopted Worksoft as their test automation platform for SAP
## Automated Testing Solution

<table>
<thead>
<tr>
<th>Simple</th>
<th>Fast</th>
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<tbody>
<tr>
<td>Allow business users to build tests</td>
<td>Automate 60-70% of core business processes in 90 days or less</td>
</tr>
<tr>
<td>No programming skills required</td>
<td>Run lights out regression tests daily or weekly</td>
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<tr>
<th>Resilient</th>
<th>Complete</th>
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<tr>
<td>Automated tests need to be resilient to changes in the underlying applications</td>
<td>Supporting all underlying software technologies</td>
</tr>
<tr>
<td>Simple test maintenance</td>
<td>Domain knowledge and expertise in the application being tested</td>
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Reduce Time, Ongoing Costs

- Initial Implementation
- Service Packs
- Minor Releases
- Upgrades and Consolidations

Before Automation:

- Analysis
- Development
- Testing

After Automation:

- Analysis
- Development
- Testing
- Time Savings

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The ROI of Test Automation

Automation reduces deployment times by 50% or more

### Advantages
- Better utilization of Functional Consultants and Business Process Experts
- Eliminates need for scarce Test Engineers and IT resources
- End-to-end business process tests that are self-sufficient
- Resource saving of up to 80%
- More resilient to application changes
- Lights-out automation for daily testing

<table>
<thead>
<tr>
<th>Test Cost (Manual)</th>
<th>Test Cost (Auto)</th>
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<tbody>
<tr>
<td>Manual Test Execution</td>
<td>70%</td>
</tr>
<tr>
<td>Test Description</td>
<td>10%</td>
</tr>
<tr>
<td>Business Cost (due to detecting errors late)</td>
<td>20%</td>
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<table>
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<tr>
<th>Cycle Time in Days (Deployment Time)</th>
<th>-50%</th>
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<tr>
<td>deployment Time</td>
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Real World Examples of ROI

- **Large chip manufacturer** - 14 people supporting the testing of support packs and enhancement packs for their SAP environment -- reduced to 4.

- **Global process manufacturer** - 280 end-to-end test processes executed weekly in a 6 hour window. Only one FTE maintains all tests, and has time to build new ones. An estimated 80%+ test coverage for critical business processes.

- **Aerospace company** - 50 ETE tests developed by 2 SAP Functional SMEs part time and one college intern in 15 weeks.

- **A large transportation company** - 250 ETE regressions test run every night. The maintenance and new development team is 2 people.

- **Large technology company** - In an SAP Deployment, reduced SI Testing resources from 65 to less than 20, while building additional tests.

- **Large process manufacturer** - 200 ETE process validation tests run monthly for project deployment, 45 Role Authorization test validate correct authorization on 650 SAP Transactions.
Strong Adoption
Real Experience. Real Advantage.

Recognized Leadership

Gartner

Magic Quadrant for Integrated Software Quality Suites

“Worksoft is the leader for testing SAP applications with their strong support for the SAP Ecosystem.”

“Worksoft customers have more than 50% of their functional tests automated, leading other vendors in the Magic Quadrant.”

“Worksoft strengths are in its resilience of tests to application changes, a high degree of reusability, and the leading edge script-free technology that enables a higher degree of test automation success.”

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Automated Testing Institute

2012 Best Functional Automated Testing Tool for SAP

“Worksoft, using an object-driven approach, eliminated the need for generating scripts or writing test code that legacy testing tools employ.”

“The automation community enthusiastically selected Worksoft Certify as their top rated pick for 2012’s Best for SAP.”

“The ATI Automation Honors are awards that celebrate excellence in the discipline of software test automation.”

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Comprehensive Lifecycle Management Spanning the SAP Lifecycle

- Change Identification
- Impact Analysis
- Functional Testing
- Performance Testing
- Audit

- Worksoft Certify®
  - Certify Data™
  - Certify Impact™
  - Certify Performance Test™
  - Certify Execution Manager™
  - Interface Extensions

- Worksoft Application Lifecycle Management (ALM) Interfaces
  - IBM Rational® Quality Manager
  - HP® Quality Center
  - SAP® Solution Manager

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Delivering Substantial Business Value

- High levels of test automation are achievable
  
  80%+ of critical business processes are automated

- Projects are delivered faster, with lower cost and higher quality
  
  Project costs and time lines are reduced by 40%+
  
  Support agile initiatives with faster delivery of innovation to the business

- Automation drives staff efficiency and teamwork
  
  Frees valuable resources for other strategic projects
  
  Business and IT collaborate more effectively

- Benefits are consistent and sustainable over time
  
  Test automation becoming a “must have” best practice

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For more information

- Contact us for
  - A Discussion
  - A Demonstration

- Let us help you
  - Analyze your business drivers
  - Build your own business case
  - Achieve your objectives

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Lynn Shourds
Regional Sales Director
(949) 702-4376
lshourds@worksoft.com
Thank you.