



## Vendor Profile

# Worksoft Evolves Its Portfolio for ERP Quality and Business Process Optimization

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## IDC OPINION

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Software drives business innovation and performance optimization and helps enable execution and competitive position. Proactive, consistent quality management for business-critical applications has increased in importance for most organizations. Given the visceral impact of downtime and performance degradations in a difficult economy and the agility enabled by software such as ERP solutions, the demand for effective testing has never been greater. The cost savings of finding software problems early in the life cycle and effective business process quality and infrastructure management for quality can be geometric in scale. In the wake of staff cuts of quality staff over the past 12-18 months, automation (along with improved organizational and process strategies) helps increase efficiency and can augment remaining resources. IDC sees these key trends driving growth for ERP testing:

- In a volatile economy as companies reinvest, financial constraints, global competition, and innovation are driving commitment to testing automation for core business applications.
- Small and medium-sized businesses (SMBs) and managed service providers are leveraging ERP testing automation for cost savings and efficiencies of scale.
- Large service and solution providers see ERP testing as an opportunity to evolve and bundle new, quality services together to target emerging markets for additional value-added and service offerings. This complements well ERP quality needs for mobile, security, and other areas (regulatory compliance, etc.).
- With the advent of agile approaches to both development and product evolution, including apps for mobile environments, software release cycles and churn are faster than ever. Business-critical branding and demand for mobile ERP applications necessitate speedy turnaround. Compressed release times from days to hours drive the need for automation. These combined factors and others that push both complexity and the need for speed (without loss of quality) are driving users to adopt automation solutions for ERP testing.

## IN THIS VENDOR PROFILE

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This Vendor Profile lays out the drivers for adoption of quality strategies and business process management in ERP environments. In a world that is driving creation of increasingly complex software portfolios that must be deployed in multimodal platform environments, management and quality are key elements to success. This is all the more important for business-critical ERP software upon which businesses depend for effective execution. This document examines the capabilities and strategy of

Worksoft, considers user experiences as part of user reference case studies, and wraps up with core guidance to the user community about considerations when choosing and then adopting appropriate ERP testing technology.

## SITUATION OVERVIEW

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### Company Overview

Worksoft is based in Addison, Texas (near Dallas), and has 120 employees and more than \$30 million in revenue for CY14 – with a compound annual growth rate of 20%+ over the past 3 years, driven by its SAP-focused, intuitive, scriptless quality assurance solutions. Worksoft's key differentiators are testing products that do not require programming and that focus on the SAP environment in a targeted, innovative manner. However, Worksoft also offers support for other enterprise technologies and platforms – both SAP and non-SAP systems. This includes Oracle, salesforce.com, Siemens Teamcenter, Manhattan, IBM Maximo, SuccessFactors, HTML, Java, and .NET. Revenue is increasingly coming from the need to validate these non-SAP applications.

Worksoft provides software for automated business process validation (ABPV). Worksoft Certify validates that end-to-end business processes and their variations work across applications, even when changes are made to the underlying enterprise systems.

Worksoft also provides automated business process discovery (ABPD). A new product, Worksoft Analyze, helps companies understand what their business processes look like in a visual format – this helps to capture an accurate, real-time view of what is happening in an organization and in turn can be used for process optimization and compliance documentation and to support automated business process validation.

Automating business process discovery and validation can allow faster innovation, flexibility, shorter IT project timelines, and higher-quality assurance in a complex landscape.

Worksoft products are relatively easy to use by nontechnical users to help provide ROI in as soon as a matter of weeks. Worksoft's automation is responsive to changes in the underlying enterprise application and business processes to help extend value beyond initial projects. These products also provide context for both SAP and non-SAP applications that integrate and coordinate with SAP for more complex quality support across related application portfolios.

Worksoft products are Worksoft Certify, Worksoft Analyze, Worksoft Performance, Certify Data, Certify Impact, Certify Interfaces, Certify Business Process Procedure (BPP), and Certify Execution Manager.

Worksoft augments its ASQ product capabilities and tight integration with SAP's Solution Manager with integration to other testing solutions, such as test management products from both HP and IBM. (IBM is leveraging a close partnership with Worksoft as a primary SAP testing solution.)

While Worksoft's depth in SAP-specific environments provides differentiation, the company is obviously more bounded with regard to broader ASQ capabilities. Partnerships with other vendors are

a core focus for Worksoft to broaden its reach. Beyond integration with the largest enterprise ASQ providers' test management solutions, Worksoft has partnerships with Keynote (Mobile Testing formerly DeviceAnywhere) and Perfecto Mobile to target mobile platforms. (Worksoft is in the process of further evolving its ASQ SaaS/cloud testing solution.)

Most recently, Worksoft has delivered Worksoft Analyze to complement its Certify portfolio and to help business users capture business process flows and visually create automated business process validation. A cloud-based solution, Worksoft Analyze provides business process capture technology that helps users to automatically document and better understand end-to-end processes and includes visualization and analysis capabilities. Examples of the ways in which Worksoft Analyze works currently include the ability to identify transaction paths and flow by execution count for SAP; identify variants of business processes and the reasons for them; see business process flow and variants by execution frequency, including workload statistics data; identify slow-running business processes that can consume both business analyst (BA) and system time; and help to prioritize investments in quality assurance and automated business process validation based on the use frequency or risk of various transactions or business processes.

Worksoft also supports SAP Fiori (SAP's user experience environment) and HTML5 for mobile, with plans for continued rapid support of other emerging areas, as Worksoft has done already for SAP HANA.

## Company Strategy

To gain visibility into Worksoft's capabilities, it is helpful to have a deeper overview of the company's product portfolio. Worksoft Certify is a codeless automated functional testing solution for business process validation. Worksoft Certify has an interface library that supports a variety of platforms and operating systems, including SAPGUI, SAP Portal, HTML, .NET/WPF, Visual Basic, Java, Flex, Microsoft Silverlight, Unix, C++, AS/400 (iSeries), mainframe/3270, and Web services (SOA). Worksoft Certify is based on a scriptless framework that can help to eliminate custom coding. Instead of generating scripts or code, Worksoft Certify uses a patented data-model design to validate business process workflows, making it relatively quick and easy to implement and adapt to frequent application changes in dynamic, rapidly changing competitive business environments.

Worksoft Certify automates the process of loading SAP objects into the software to help create a set of SAP application maps to provide a common application inventory for improving impact analysis and business test validation. By automating the process of loading SAP objects into Worksoft Certify, SAP teams can define and execute more automated tests efficiently and more quickly than manual approaches.

A prebuilt test content library for SAP is also included that contains a reusable repository of SAP business process tests based on commonly used SAP transaction codes and practices. Together, these capabilities can help accelerate test automation projects and can assist companies in improving the integrity of their SAP business processes.

For organizations that want to include SAP business analysts, business experts, and subject matter experts in the process, Worksoft includes Certify Capture. It is a free add-on to the Certify functional test automation solution that can be used by both testing professionals and business users. It does not

require specialized IT knowledge or programming skills, thus helping to avoid the problems normally associated with cataloging important business process knowledge that defeat test automation efforts. Once captured, business process knowledge can be easily used for testing, training, and compliance activities. Certify Capture preserves institutional knowledge and business processes in a centralized repository while simplifying the process of creating end-to-end business process tests with significantly less effort than required with legacy test solutions.

Certify Data is a test data management solution designed to automatically identify and extract representative business data so that it can be embedded into Worksoft Certify during test case construction. Over time, Certify Data also helps customers maintain their test data by performing automatic test data refreshes directly from within Worksoft Certify.

Certify Impact is a risk-based testing solution that identifies, recommends, and executes business process tests based on a set of proposed SAP application changes either directly from the transport or through SAP Business Process Change Analyzer (BPCA).

Worksoft Certify also enables bidirectional integration to a variety of market-leading enterprise test management solutions such as SAP Solution Manager, IBM Rational Quality Manager, and HP Quality Center. Further, Worksoft Certify includes the ability to create SAP Business Process Blueprints and to populate the Business Process Hierarchy in Solution Manager.

Access to key performance indicators and quality metrics is also incorporated into Certify to give managers the information and visibility to help improve decision making and risk management. Identifying and quantifying the overall effectiveness of business process validation tasks can help provide visibility into current project status and test results through prepackaged and customizable Web-based charts and graphs.

Certify Business Process Procedure is a Web-based reporting module that generates detailed reports for testing, IT audit, and compliance. These automatically generated BPPs help keep documentation current and accurate and can be produced in multiple formats so that they are flexible and reusable for applications including training and Solution Manager Blueprint documentation. BPP reports catalog a sequential set of test steps, grouped by test process and application screen. Certify BPP provides dynamic reporting against Worksoft Certify test executions and test results to provide an audit trail of the business process validation activity. Certify BPP also enables Web-based workflow and approval for Worksoft Certify assets, including test requirements, test processes, and test results. Certify BPP can also help record and preserve test assets and generate documentation to aid in governance and compliance including regulations such as FDA's 21 CFR Part 11 (helping provide a system of record for reporting, auditing, and compliance).

Certify Execution Manager is an automatic execution system that enables companies to quickly and easily schedule a variety of Worksoft Certify functional tests to run in an unattended mode (primarily for high-volume tests) or when companies want daily business process validation.

The vendor also offers Worksoft Performance, which is a combination of Worksoft business process validation technology and consulting services that can allow users to validate the behavior, capacity, and user response time of an application under real world workload scenarios. Determining the

behavior of an application under load and using the results to provision system capacity appropriately can be a key activity before the application goes live.

Since Worksoft ships with preexisting SAP tests and scenarios out of the box, a keyword-driven approach enables users to not have to re-implement if they haven't changed their SAP source. Worksoft Certify connects to Solution Manager and extracts information about the applications. As users describe an instance, they don't need to have SAP running – Worksoft renders what the screen would be and supplies flexibility from a testing standpoint. Another feature is Certify Data, which at test execution time allows for inspection of real data in SAP. For example, if you want to know a part number, you can use Certify Data and find the potential part and enable debugging. Worksoft's Certify Impact enables risk-based impact analysis on tests when SAP changes. This can provide several benefits: When the application changes, Worksoft can automatically update the tests and can point to specific areas where the tests are being impacted and show where they need to be updated, as well as if any new tests are needed. This also can help to automatically identify subsets of tests that need to be checked based on the impact of the changes to SAP.

## FUTURE OUTLOOK

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Well-performing and well-functioning ERP applications are core to business success; Worksoft has leveraged its differentiated approach to ERP testing extremely well so far and is augmenting its approach as the company moves into 2015. From capturing, visualizing, and analyzing core business processes; continuing to expand its quality assurance capabilities; and providing a SaaS solution for its intuitive Worksoft Certify and Worksoft Analyze products, Worksoft is well positioned, as demand for automation continues to grow at global enterprises looking to replace manual effort or older technology. We see additional opportunities for the company as it moves into the 2015 time frame, targeting business process discovery and the SaaS arenas, as well as deeper and broader partnerships with systems integrators (SI) and service providers with strong testing and ERP practices. We expect strong growth for Worksoft in 2015.

## User Reference Summary

The customers IDC spoke with valued Worksoft for its ease of use and a different, pragmatic, and efficient approach to testing that focused on business processes. A chemical company and an agricultural firm had similar experiences for efficiencies of scale for the business and ROI created by adoption of Worksoft for their SAP environments. Both companies found the transition to automation required the need for cultural and organizational change up front, which was rewarded by massive time and resource savings post-automation. Also, the shift to automated ASQ usage in this context was smoother since Worksoft is scriptless and intuitive.

The chemical company had been live on SAP since 1996, and the CIO kept asking why testing wasn't automated. The challenge for this company with other automated SAP testing solutions was the effort required to create scripts, which would subsequently be shelved and then would require additional modifications when future changes were made to the applications (or scripts would not work). As a result, extensive manual testing was the name of the game. Worksoft changed the SAP testing options in multiple ways for this organization: scriptless testing meant that users didn't need to be programmers to use the tool and, because it is object based, when a change happened to the SAP

system or the processes, users could change one object and have it be fixed "all at once." For example, if a company had 50 processes that touched a specific SAP screen, with other tools changes would be required to all 50 processes. For tool evaluation purposes, this organization had businesspeople who were configuring SAP assets with multiple options for SAP testing, and they overwhelmingly chose Worksoft. (The other challenge with which this company was faced was the retirement of key staff who had been involved with manual testing of SAP applications, so the pressure to automate was significant and immediate.)

To assist in the transition, this company brought in an SI provider (Cognizant) along with its own team and support from Worksoft. The company was able to go live within four months.

The agricultural company has about 26,000 employees and close to \$10 billion in revenue per year, and this organization is using Worksoft for cross-functional areas, bringing together business analysts and development staff (with about 100 BAs and 200 developers involved in the SAP area). One of the biggest drawbacks and challenges for this organization is maintenance and SAP updates – application change dragged the company down, and test automation was a necessity to enable it to be responsive to dynamically changing business pressures. This organization also wanted to see which tool would be easier to use as it went through application changes (some of the mappings were broken when using live mappings). It also developed an ROI model and created a break-even analysis (e.g., over the course of the year, if it took a specific number of manual hours to test versus the amount of time needed post-automation). Assuming three releases per year, running regression tests at least twice per release was the baseline scenario in place for this organization.

In addition to the benefits offered by Worksoft, this company also valued the partnership that Worksoft extended toward it and the ways in which Worksoft was open to improving the product. This company also found that Worksoft's product works well and efficiently compared with alternatives that required many more steps, were significantly more cumbersome, and required additional resources to build and maintain testing scripts and manage them as a result.

The biggest challenge for this organization was the full conversion of the company's application and also its requirements, which were spread across multiple systems (from requirements management tools to Microsoft Excel to Microsoft Word documents). The company opted to do this across five individual business units and was able to complete one unit per month. With over 200,000 test scenarios, this company also needed to get a dedicated machine rather than a VM on which to run Worksoft to improve performance. During the launch, the company did launch studies to ensure that the tool was not merely being rolled out, but adopted. The company actively pursued individuals who had not logged in to help enforce a smooth transition. This company has achieved significant savings as a result of automating its SAP regression tests (millions of dollars per year). It is now looking to move to performance testing as well – turning regression tests into performance tests that include its massive workflows. It is also considering a move to cloud testing but has concerns about security.

Both organizations found significant efficiencies of scale in moving their SAP applications to automation with Worksoft's solutions. Establishing exit criteria ahead of time, prioritizing those across functional groups (including BAs and developers), and setting up an effective transition plan to enable adoption along with Worksoft's intuitive, efficient technology were key to success for these companies.

## ESSENTIAL GUIDANCE

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Users should engage in gap analysis assessments to determine core needs for ASQ across core emerging areas such as ERP testing, ASQ SaaS, and cloud testing and evaluate and adopt appropriate automated technology and testing services. Technology alone is insufficient, however; as was indicated by Worksoft's customer references, effective adoption of automated solutions must be accompanied by appropriate organizational and process change to help ensure consistent usage. This is even more the case in core emerging business-critical areas such as ERP testing. As customer examples indicated, these are "must-have" business software environments to sustain core corporate operations as well as customer and partner relationships. We expect ERP testing to be accompanied with business process as well as effective performance optimization and application testing.

### Evolving Worksoft

Worksoft has been honing its focus during 2014 to target business process flow capture with Analyze, as well as leveraging emerging SAP initiatives with HANA, HTML5, and Fiori. Worksoft's agility in addressing emerging needs on the SAP side is complemented by ongoing efforts to support testing for other ERP environments – an obvious need for users and an opportunity for Worksoft. We see additional opportunities for engagement with systems integrators evolving their ERP testing practices as well as Global 2000 and other organizations seeking to get a handle on the complexities of their ERP system quality in conjunction with the need to manage changing complexity in business processes. Additional partnerships to coordinate quality analytics with Worksoft's deep ERP testing and areas such as requirements virtualization with providers such as iRise offer a range of alternatives for users and Worksoft alike as they continue to execute in this dynamic and evolving market.

## LEARN MORE

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### Related Research

- *Worldwide Automated Software Quality 2014-2018 Forecast and 2013 Vendor Shares: Some Growth in ASQ with Ongoing Adoption Projected for Mobile, Cloud, and Embedded* (IDC #251643, September 2014)
- *Worldwide Application Performance Management Software 2014-2018 Forecast* (IDC #251205, September 2014)
- *Worldwide Application Performance Management Software 2013 Vendor Shares* (IDC #250361, August 2014)
- *Seeking to Bridge the Quality and Security Gap for Software: Synopsys Completes Coverity Acquisition* (IDC #1cUS24928814, June 2014)
- *IDC MaturityScope: DevOps* (IDC #249471, June 2014)
- *Strategies to Leverage and Manage Open Source: Major Media and Information Company Benefits from Governance* (IDC #249218, June 2014)
- *SmartBear Acquires Lucierna Extending Quality Out to App Performance* (IDC #1cUS24554713, December 2013)

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