WHITE PAPER

# The Business Value of Worksoft Automated Business Process Validation Solutions

Sponsored by: Worksoft

Melinda-Carol Ballou Matthew Marden

August 2014

## EXECUTIVE SUMMARY

Organizations face a business imperative to ensure consistently high quality in end-to-end business processes. This requires extensive and effective testing across business-critical applications related to these processes. Conducting this testing can place a significant resource burden on organizations, leading many to look to increasingly automate business process validation.

Worksoft has established itself as a strong player in this area with its suite of automated business process validation solutions. Worksoft's intuitive software distinguishes itself from competing offerings by not requiring programming or scripts, having a business process focus, maintaining a focus on SAP environments, and responding quickly to dynamic change in those environments.

Organizations using Worksoft are achieving strong IT and business benefits by automating a much higher percentage of business processes. On average, these mostly very large SAP customers (average SAP user base of 19,557) surveyed by IDC are obtaining average discounted benefits worth $13.59 million per interviewed organization over five years, achieving a net present value (NPV) to their investment of $11.46 million, earning a return on investment (ROI) of 537%, and reaching the break-even point in their investment in Worksoft in 11.9 months. These Worksoft customers are benefiting by:

- Extending automation to test significantly higher percentages of business processes
- Saving tens of thousands of hours of employee and contractor time on regression testing
- Catching more defects before they enter production
- Driving business agility by speeding application development and delivery cycles

**Business Value Highlights**

Worksoft customers are achieving a five-year NPV of $11.46 million and earning back their investment in 11.9 months on average through the following benefits:

- Reducing staff time spent on regression testing by 48%, saving an average of 54,844 hours per year
- Increasing percentage of business processes automated from 12% to 44%, automating an average of 317 end-to-end business processes per enterprise
- Cutting productivity losses from defects entering production environments by 44%
- Speeding up test cycles by 39%
- Accelerating the time to market for application projects by 5.3 weeks on average

## IN THIS WHITE PAPER

This white paper presents IDC's analysis of the business value that organizations are achieving by using Worksoft automated business process validation solutions. To conduct this analysis, IDC interviewed 12 Worksoft customers in March and April 2014. These organizations were mostly large organizations with an average employee base of 34,273. All of these organizations run significant SAP environments. Interviewees came from a variety of industries, including technology, healthcare, electronics, medical device, food and beverage, utility, eretail, insurance, and agriculture, with most based in the United States but a number having worldwide operations. On average, these organizations have used Worksoft Certify for 2.5 years, with a range of use from months to six years.

IDC designed the interviews to obtain quantitative and qualitative information about the organizations' use of Worksoft Certify to automate testing for key business processes. Based on this information, IDC analyzed the impact Worksoft is having on these organizations and determined the average financial impact on the organizations interviewed for this white paper. Table 1 provides an aggregated profile of the organizations surveyed for this white paper.

## TABLE 1

### Demographics of Interviewed Organizations

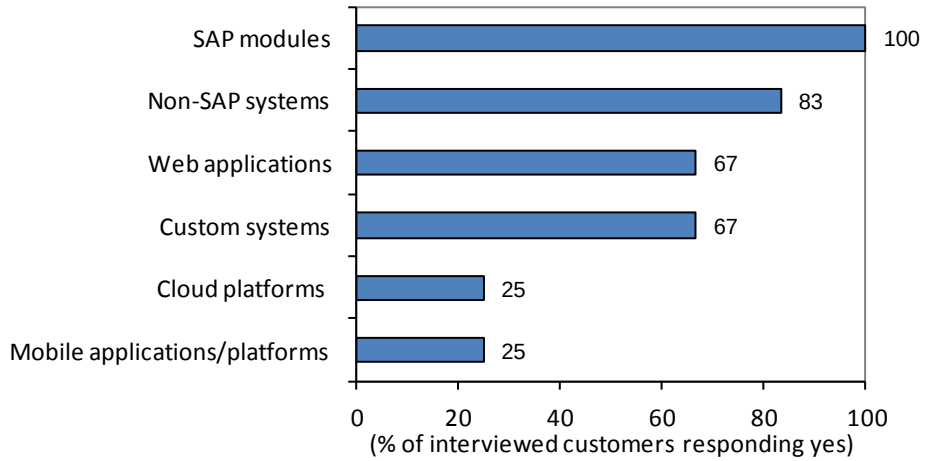
| | |
|---|---|
| Average number of employees | 34,273 |
| Average number of SAP instances | 3 |
| Average number of internal SAP users | 19,557 |
| Average number of external SAP users | 189,721 |
| Average months using Worksoft Certify | 30 |
| Industry | Technology, healthcare, electronics, medical device, food and beverage, utility, agriculture, eretail, insurance |
| Region | United States, worldwide |

Source: IDC, 2014

All organizations surveyed used Worksoft Certify for their SAP ecosystems, and 83% also used Worksoft Certify to validate business processes for non-SAP systems. Further, 67% of surveyed organizations used Worksoft Certify with custom systems and Web applications, and 25% also used Worksoft Certify with mobile applications and on cloud platforms (see Figure 1).

## FIGURE 1

### Worksoft Certify Customer Use Cases




n = 12

Note: Data represents percentage of interviewed organizations saying that they use Worksoft Certify for the platforms listed in the figure.

Source: IDC, 2014

## SITUATION OVERVIEW

Business applications drive competitive position, and they require both quality management and adaptability to meet changing business processes and needs. Organizations must quickly respond to address issues in enterprise applications and to incorporate business process agility but are resource constrained in an economy that remains volatile — this demands intuitive automation and process support.

The complexity of ERP environments today is unprecedented. For instance, SAP used to be simply an on-premise ERP system, but that is obviously no longer the case, with offerings ranging from traditional on-premise to SAP's in-memory HANA platform and analytics to mobile as well as cloud-based offerings. In addition, organizations have rich and variegated software portfolios. SAP tends to be just one part of a broad range of customer applications; besides SAP, organizations typically have multiple critical applications (both purchased and in-house developed). Against this background of complexity, companies must deal with an unprecedented level of change in the landscape, driven by the need to innovate faster (including SAP and other ERP vendors themselves and changes to both

their technologies and businesses). Organizations want to make sure they're using the latest technology to obtain maximum benefits from new capabilities for the business and to gain (or retain) a competitive edge as quickly as possible. There's a push therefore — even given increased complexity and technology churn and change — to increase the speed at which companies are able to complete projects (from months and years to weeks, days, and hours).

At the same time, key business processes weave through this complex array of applications that companies don't control when they are delivered from the cloud (or delivered via service providers) and are then subject to changes for which an organization doesn't have the opportunity to prepare or to plan.

Given this complex landscape, how do organizations make sure that their business processes continue to work and do what's expected and needed? Enabling business process quality, even as these enterprise applications tend to change constantly and are becoming more complex, can be supported by a strategy that incorporates these approaches:

- Identify critical business processes and validate that they are working correctly across multiple applications as they evolve.
- Once the business processes have been tested across applications, they also need to be tested across different platforms (e.g., on-premise, tablets and other mobile devices, cloud).
- The variations of business processes in different contexts for regional and compliance requirements need also to be verified and tested to be certain that they are functionally valid and doing what they need to do by organizational role and geographic and other contexts.
- Organizations must also enable collaboration between the business and IT; business teams know how the processes are supposed to work, and IT can make it happen technically. And organizations need to make sure that the business processes work properly from a business perspective and a technical perspective before they are deployed into production.

For many companies, this process is largely manual every time they have a project. Companies tend to do their "own thing"; they don't know how "end to end" is supposed to work across these environments (and challenges), and they are still left with a large amount of risk. For instance, many merely test applications but not the interfaces between applications where most of the problems exist. This approach is an incomplete and risky model for doing business process validation.

If companies automate this process rather than doing it manually, they can save money, given the significant time and labor costs for manual testing and validation. Also, many ERP projects are focused on testing, and as much as 20-40% of project time may be spent on testing to make sure the application works correctly. Most companies have huge project backlogs, and if they cut 20-30% off of a project by automation, that is a significant benefit to them (enabling them to take advantage more quickly of new functionality).

And finally, high levels of change that are not managed and are not tested in critical applications can lead to catastrophic failures that can bring the business to a halt. It is against this backdrop that we are considering ERP quality and automated approaches to business process validation.

## Automated Software Quality Market and Growth Drivers

The automated software quality (ASQ) market grew merely 2.5% in 2013, compared with 4.9% in 2012. Although the market grew less than the prior year (in part due to revenue challenges for large ASQ vendors), IDC remains bullish in its assessment about overall ASQ growth moving into the forecast period.

We expect growth of 5.2% in 2014 and ongoing growth throughout the 2013-2018 forecast period (despite a volatile worldwide economy), with a CAGR of 6.1% for that time frame for the ASQ market. This is due to the business-critical nature of software to compete globally and, at the same time, due to increases in both complexity and speed for application development and deployment that require automation. What we call "multi-modal" deployment means that organizations must deploy software across mobile, cloud, social, and emerging platforms as well as existing ERP systems (that also require multi-modal, continuous deployment and effective business process coordination and quality). The need for efficient development and deployment of quality software will drive growth throughout the forecast period, even as functional capabilities become increasingly available in the cloud.

An increase in complex sourcing and staffing cuts for both internal development ASQ teams and centers of excellence continued to drive demand for automated software quality solutions in 2013 moving into 1H14 but at levels that were not fully sustainable in 2013. We remain optimistic about an emerging mix of ASQ providers that includes enterprise players (that are evolving their cloud and PaaS offerings) and innovative best-of-breed providers with a specialized focus moving into 2H14.

Limited resources and layoffs that impacted quality organizations, along with significant technology complexity, led to investments in 2013 that are ongoing in 1H14, and we encourage users to continue to address technology and software challenges with effective ASQ solutions and strong process and organizational strategies. We expect demand to continue in 2014–2016, along with innovation, to address agile development, incorporate and test social media and an explosion of mobile applications, and leverage an end-to-end quality life cycle (from requirements to deployment for a DevOps handoff), lab management, service virtualization, SaaS ASQ, ERP, and cloud testing to support overall ASQ growth.

## Key Challenges Addressed by Worksoft Certify

Worksoft's solution portfolio enables ease of adoption and execution for addressing SAP quality challenges via functionality including scriptless testing, business process workflow validation, and SAP application maps to provide application inventory for impact analysis and business test validation with prebuilt test content libraries. Automation and process support are key enablers.

As discussed in the Situation Overview section, we see organizations struggling to keep up with both the complexity and pace of change for enterprise applications. Business processes are interwoven in core ways, yet lack of collaboration between the business and IT and lack of visibility into business process validation often create stumbling blocks for core applications and are areas addressed by Worksoft's portfolio of products.

As SAP evolves its platform with additional cloud, mobile, and in-memory solutions with HANA (including analytics), we see Worksoft evolving its product set commensurately to enable visibility, quality management, and business process validation at a time of increased velocity and volatile resource availability.

Worksoft currently supports automated business process validation for most SAP and non-SAP enterprise applications, including (but not limited to) Oracle, Salesforce, Siebel, Workday, Kronos, and Web applications.

## WORKSOFT AUTOMATED BUSINESS PROCESS VALIDATION SOLUTIONS

Worksoft is based in Addison, Texas (near Dallas), and has 120 employees and 280 customers with revenue growth of around 40% in CY 2014 over the prior year, driven largely by its SAP-centered, intuitive, scriptless quality solutions.

Worksoft's differentiators with the company's Certify software product line are test automation products that do not require programming and that focus on the SAP environment in a targeted, innovative manner that refocused the company's business for the past several years and has been driving growth. (The vast majority of Worksoft's revenue comes from SAP-related quality assurance today; historically, Worksoft has also offered general software testing capabilities and continues to support a wide variety of non-SAP applications that must also interact with SAP). Worksoft products are relatively easy to use by nontechnical users to help provide coordination for both business and IT users and to enable ROI typically in a matter of weeks for SAP users. (This white paper drills down more specifically on ROI benefits.) Worksoft's automation tools are responsive to changes in the underlying SAP application and business processes to 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.

Most recently, Worksoft announced Worksoft Analyze to complement its Certify portfolio and to help business users capture business process flows and visually create automated business process validation. Worksoft Analyze provides business process capture technology and is available now. Worksoft will augment the product with new visualization and analysis capabilities that are scheduled to be available in Analyze 2.0 in 1Q15. 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 unique business process flow and variants by execution frequency, including workload statistics data; identify slow-running business processes that can consume both business analyst and system time; and 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 HTML 5 for mobile, with plans for continued rapid support of other emerging areas, as Worksoft has done already for SAP HANA.

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 HP, IBM, SAP, and JIRA. (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 less focused on broader ASQ capabilities, such as defect resolution and tracking. Partnerships with other vendors are a core focus for Worksoft to broaden its reach.

## BUSINESS VALUE OF WORKSOFT CERTIFY

Organizations interviewed for this white paper have found it persistently challenging to lessen the burden associated with managing and making changes to their applications. They face a constant tension between ensuring that changes are made correctly and trying to minimize the amount of time that staff and contractors must spend doing regression testing. Automated testing solutions have provided partial relief, although one organization noted that before deciding to use Worksoft Certify "*we had looked at automated testing software multiple times before choosing Worksoft. And each time, we walked away feeling like it was going to be too heavy, too much work.*"

As a result, these organizations either allotted significant amounts of staff time to manual regression testing — what one customer termed *mundane tasks and repetitive activities* — or accepted the business risk inherent in not testing all changes to applications. Worksoft customers said that they have been able to leverage their use of the Worksoft Certify scriptless automated business process validation solution to minimize the business challenges associated with this dilemma.

Interviewed customers said that they are achieving value with Worksoft Certify by extending automated testing and quality assurance for important business processes much deeper into their application ecosystems. These customers are accomplishing more automation than they could with other software-based testing solutions because Worksoft Certify's scriptless nature makes it easier to implement without spending significant time on programming since these intuitive capabilities make it simpler for non-IT personnel to use and leverage.

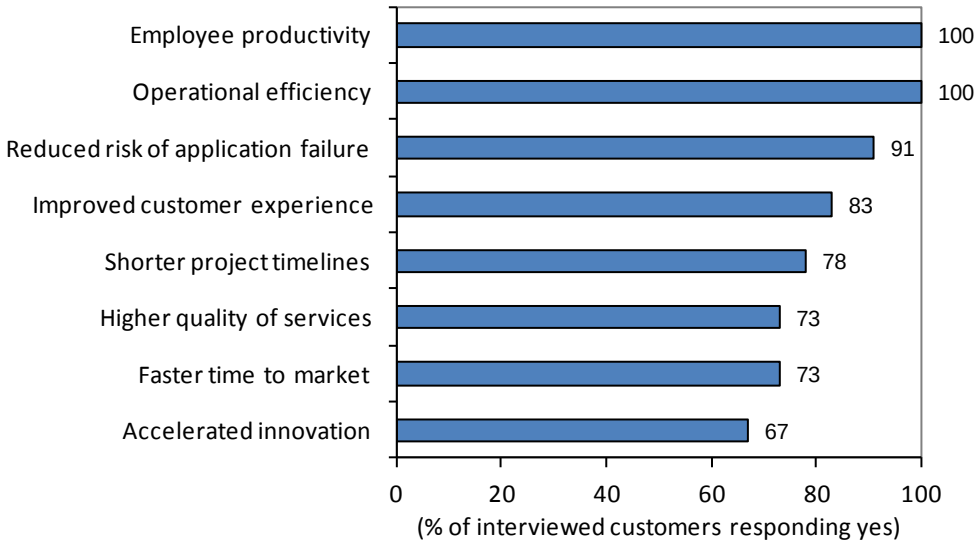
Worksoft customers said they are achieving substantial operational and business benefits, including:

- Tripling the percentage of business processes automated in less than three years
- Saving substantial amounts of staff time previously spent on running regression tests
- Improving the quality of services by catching data-related defects before production
- Speeding up testing and application deployment cycles to create greater business agility
- Fostering collaboration between IT and business experts to streamline technology projects

Figure 2 lists the benefits of using Worksoft.

## FIGURE 2

### Benefits of Using Worksoft




n = 12

Note: Data represents percentage of interviewed organizations saying the items listed in the figure are benefits of their use of Worksoft Certify.

Source: IDC, 2014

## Financial Benefits Analysis

IDC aggregated data derived from its interviews with Worksoft customers to measure the financial impact on these organizations from their use of Certify. In total, IDC calculates that these organizations will record an average discounted benefit of $13.59 million over five years, with an average NPV of $11.46 million.

The financial benefits averaged $4.02 million per year for each enterprise and fall into five main areas:

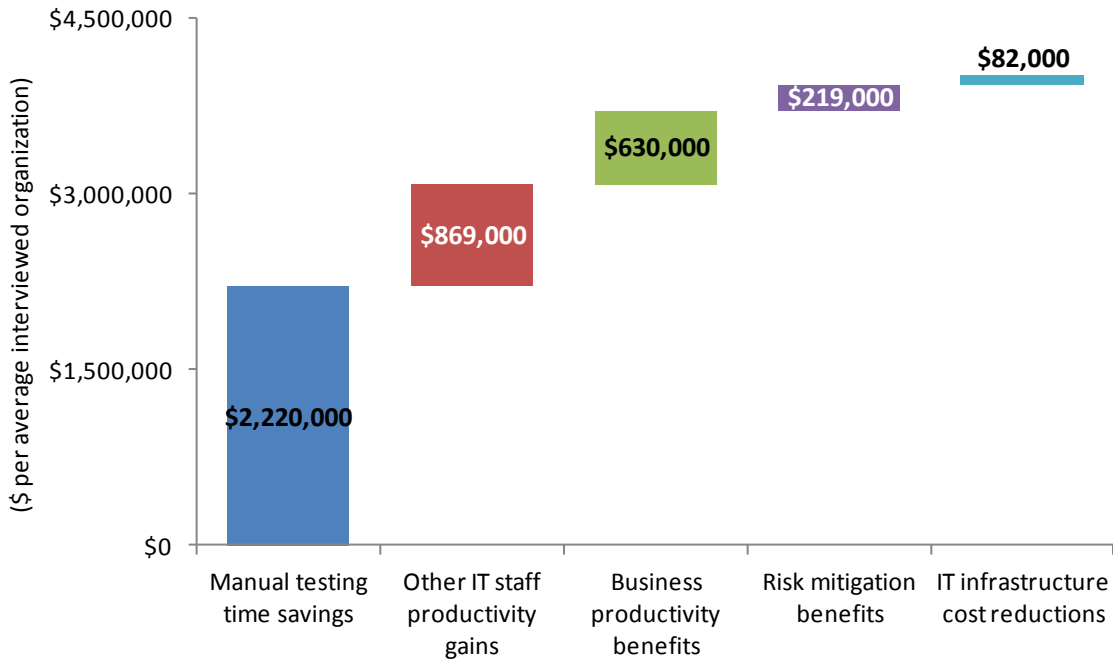
- **Expanding automated testing to additional business processes brings benefits:** Extending automation to far more business processes has allowed these organizations to nearly halve the time that staff and contractors spend on manual regression tests. IDC projects that over five years, this is worth an annual average of $2.22 million in productivity benefits per organization.
- **Other IT staff productivity gains:** Leveraging efficiencies achieved with greater testing automation is enabling Worksoft customers to save IT staff in other business process- and quality assurance-related areas. IDC calculates that these time savings are worth an average of $869,000 per organization per year over five years.

- **Business productivity benefits:** Cutting the duration of testing cycles and application deployments is increasing non-IT staff productivity levels. On average, over five years, these productivity benefits are worth $630,000 annually per organization.
- **Risk mitigation benefits:** The ability to identify defects and prevent defects from entering the production environment is saving productive time of end users of applications and minimizing the business risk these organizations face from application defects. These benefits are worth an annual average of $219,000 per organization over five years.
- **IT infrastructure cost reductions:** Avoiding contractor costs and licensing fees associated with other automation solutions is saving Worksoft customers an annual average of $82,000 per organization over five years (see Figure 3).

These five areas are explained in the sections that follow.

## FIGURE 3

### Average Annual Benefits




**Total: $4.02 million per interviewed organization**

Source: IDC, 2014

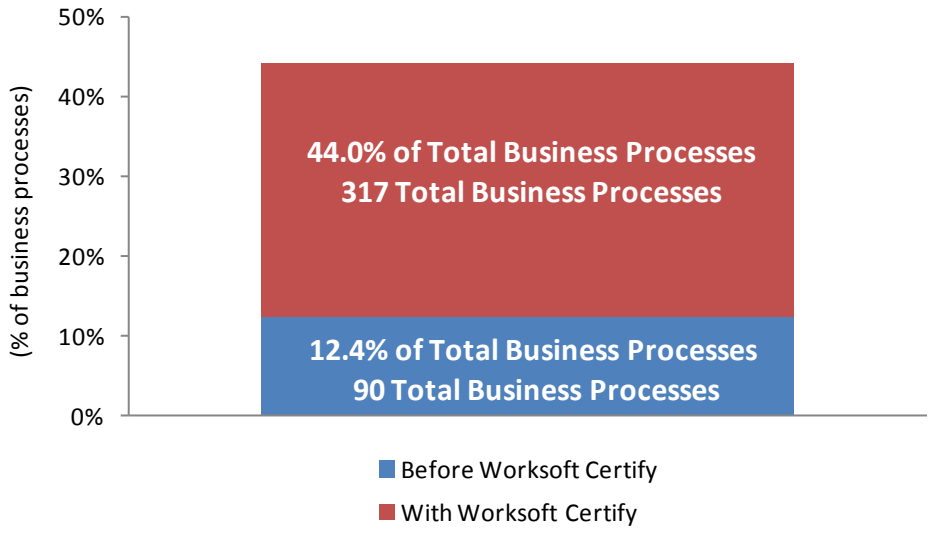
## *Increasing Automation Means Savings in Testing Processes*

Interviewed organizations are leveraging Worksoft Certify to automate substantially more business processes in their application environments. All interviewed organizations identified "operational efficiency" and "employee productivity" as key benefits of Worksoft Certify, which are directly tied to increasing automation levels of testing and quality assurance. This extension of automation is occurring even though more than three-quarters of these organizations were already using at least one other software-based testing solution. On average, interviewed customers report increasing the percentage of business processes they have automated from 12.4% to 44.0% in two and a half years with Worksoft (see Figure 4).

Organizations can drive automation deeper into their application environments with Worksoft in part because they do not have to create custom coding. Also, Worksoft Certify can automatically take into account application changes and identify where new tests are needed. This functionality reduces the burden on organizations as they prepare tests and allows them to extend automation to more business processes. One customer praised Worksoft's impact on its automation efforts: "*We were looking for more seamless automation and fewer starts and stops for our regression testing. Worksoft filled that gap. We went from having about 50% to 80% of our regression processes automated.*"

## FIGURE 4

### Business Process Automation with Worksoft Certify




Source: IDC, 2014

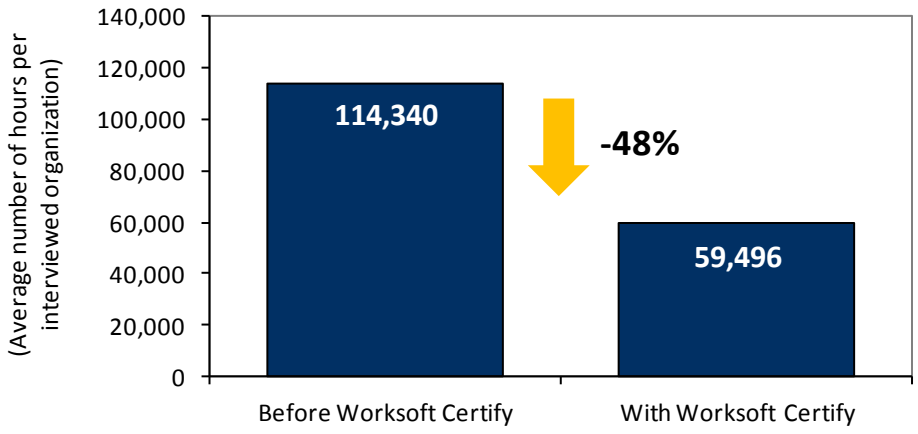
As automation is extended, Worksoft customers minimize the resources needed for conducting manual regression testing. Thus these organizations report saving significant amounts of employee and contractor time previously dedicated to carrying out manual regression testing even as they improve quality assurance levels. These time savings can be put to other more productive uses, such as delivering more projects with the same staff or reducing the spending on external contractor staff.

Reducing the amount of manual regression testing needed is the single most significant quantifiable benefit these organizations are capturing from their use of Worksoft. The surveyed organizations all operate significant SAP environments and allotted an average of 114,340 hours to manual regression testing per year before their Worksoft deployments. Now, these organizations report extending automation of testing to the point where they have nearly halved (48% reduction) the average time their staffs must spend on manual regression testing, with average annual savings of 54,844 hours per year per enterprise (see Figure 5).

Customers trace this substantial reduction in staff burden to their decision to deploy Worksoft Certify. One Worksoft customer explained: "*Before, we couldn't fit all the testing we needed to do in our two-week windows. If we were going to hire to do the types of tests we're doing now, we'd probably have to double our staff.*" IDC calculates that time savings on manual testing achieved with Worksoft results in a financial benefit to these organizations of an annual average of $2.22 million per organization over five years.

## FIGURE 5

### Average Hours of Manual Regression Testing per Organization per Year




Source: IDC, 2014

## *Realizing Other IT Staff Time Savings Through Benefits of Automation*

Interviewed organizations also reported realizing additional IT staff time savings in areas impacted by increased testing automation. Greater automation has reduced the burden on IT staffs for tasks related to business process testing and data assurance. Automation assets also serve as an accurate source of documentation for training and regulatory compliance with minimal incremental effort.

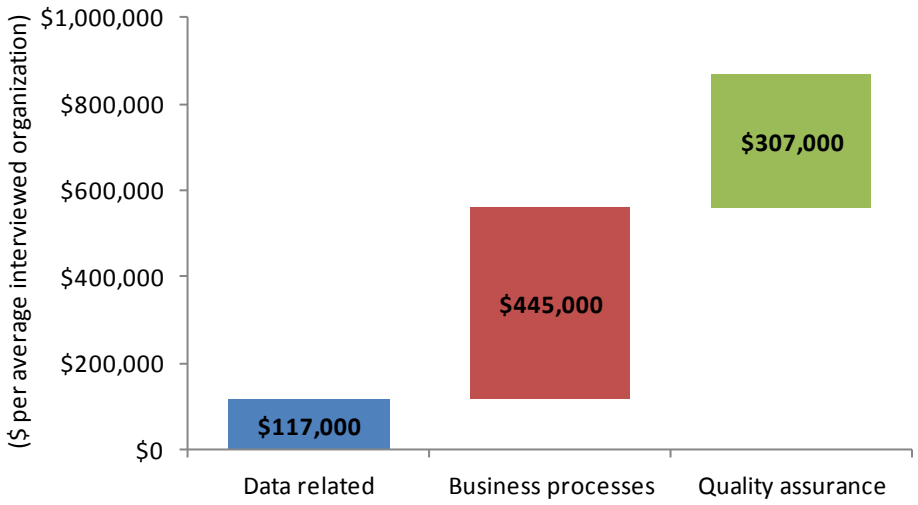
Organizations said that Worksoft is allowing them to save IT staff time in three areas:

- **Data related:** The burden of analyzing, entering, and reviewing data needed for testing has been reduced. One customer explained: "*With the tools Worksoft provides you with, you can go step by step through what is actually being executed, and it gives you all of the data and the variations that you use.*"
- **Testing processes:** Processes related to carrying out tests have become more efficient by reducing the burden on IT staff in areas such as document creation, maintenance, and compliance. One customer explained: "*I now have a very traceable test process with Worksoft, so our auditors are able to come after a project and see what we've done. As a result, we always meet our system audits and are saving staff time.*"
- **Quality assurance:** Ensuring the quality of tests is less burdensome. Customers are benefiting from reusing requirements definitions, not needing to create code, and implementing more upgrades in a timely and correct fashion. One customer explained: "*Because we have the dataset already, we can save 10 hours per project on defining requirements. It's the largest ones where we run the whole suite, where we get our biggest benefit.*"

In total, IDC calculates that Worksoft's customers are realizing annual IT staff time savings worth $869,000 per organization over five years (see Figure 6).

## FIGURE 6

### Other IT Staff Productivity Benefits




**Total: $869,000 per interviewed organization**

Source: IDC, 2014

## Driving the Business with Automation

Worksoft customers are also leveraging their use of Worksoft Certify to create business value by increasing employee productivity and capturing more revenue through greater agility and faster deployment of innovative technologies. A strong majority of interviewed organizations credited Worksoft with helping them improve their "customers' experience" (83%), shortening "project timelines" (78%), and improving their "time to market" (73%).

Worksoft Certify is having a positive impact on the organizations' business agility by driving automation deeper into their application ecosystems, which is speeding up testing cycles and application deployment timelines. This benefits end users by saving time and getting applications to them faster; on average, these organizations report accelerating time to market for application projects by an average of 5.3 weeks. In addition, these organizations have been able to capture additional revenue by allowing fewer defects to enter the production phase and by deploying applications faster.

On average, IDC projects that interviewed organizations are realizing business productivity benefits of $630,000 per organization per year over five years with Worksoft.

## Reducing Risk by Minimizing the Number of Defects Entering Production

Worksoft customers are reducing organizational business risk and increasing productivity levels by identifying a higher percentage of defects before they make it into the production process. These organizations recognize the impact Worksoft has had in this area: A full 91% of them identified "reduced risk of application failure" as a key benefit of Worksoft Certify. As a result, their business process quality is improving and fewer software defects are getting through to the production environment. Therefore, end users are having less productive time taken away by application defects.

Interviewed organizations have seen productivity losses caused by application defects decrease by about 44% since deploying Worksoft Certify. One customer explained: "*Before Worksoft Certify, we were discovering 84% of defects during testing, which meant that 16% were escaping into production. With Worksoft Certify, we got that up to about 95% discovered during testing, which means a 5% escape rate.*"

For these organizations, there is real business value in minimizing the number of defects going through to production:

- One customer explained that it typically leaves an application with a defect until a fix can be pushed out but that this can result in a 20-30% productivity decrease for application users.
- One customer explained that it provides emergency fixes for defects at an average cost of $7,500 per such response. It has reduced the number of emergency fixes and can better carry out scheduled actions to make its applications more robust with Worksoft Certify in place.
- These organizations are also benefiting because it is less costly for them to resolve defects in the pre-production environment rather than in the production environment.

In addition to avoiding the inconvenience and costs associated with productivity losses and issuing short-term fixes, Worksoft also helps organizations reduce the likelihood of more impactful downtime events occurring as a result of serious defects making it to the production environment. For organizations that increasingly rely on applications to drive their businesses, it is critical for their applications to be as stable and be online as much as possible.

In total, IDC calculates that the organizations interviewed for this white paper are achieving average productivity gains worth $219,000 per organization per year over five years by reducing the number of defects impacting applications.

An additional benefit in risk mitigation that deserves mention but is not quantified in this white paper is the extent to which Worksoft business process validation solutions can help mitigate the risks associated with a catastrophic system defect. The total cost of such large but rare systems failures can be substantial in terms of lost revenue, manufacturing disruption, logistics-related delays, customer service, and company reputation.

### *IT Infrastructure Cost Reduction*

Interviewed organizations are also avoiding costs by using Worksoft Certify. In particular, several Worksoft customers said that they have eliminated or reduced licensing costs by decommissioning their previous software-based testing solutions. Another organization noted that it has avoided contractor costs that it incurred with a different solution because Worksoft Certify is so intuitive that it no longer needs this support. In addition, faster testing cycles, faster deployments, fewer project delays, and fewer production defects all make budgeting more predictable. In total, IDC projects that the organizations interviewed for this white paper are realizing average IT infrastructure cost savings of $82,000 per organization over five years.

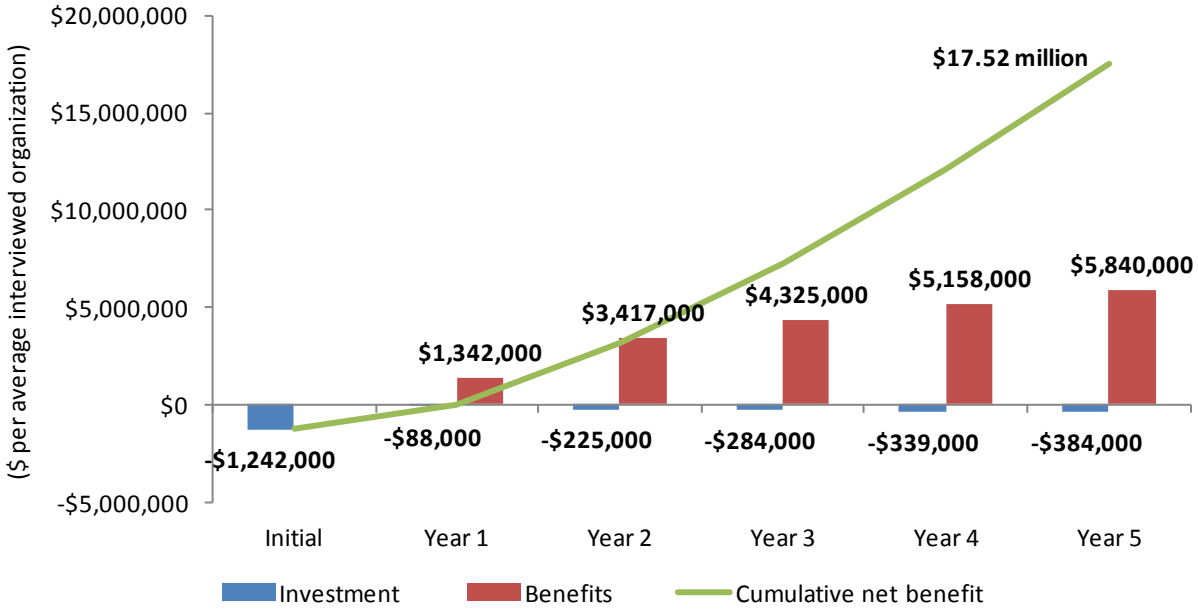
## ROI ANALYSIS

IDC uses a discounted cash flow methodology to calculate the return on investment and payback period. ROI is the ratio of the net present value and discounted investment. The payback period is the point at which *cumulative* benefits equal the initial investment.

IDC assessed the cost, benefits, and value associated with the use of Worksoft Certify by the 12 organizations interviewed for this white paper over a five-year period (refer back to Figure 5). IDC calculates that these organizations are spending an average of $512,000 per organization each year over five years, including initial costs. Based on these investments, these organizations will achieve annual benefits worth an average of $4.02 million per organization over five years. IDC projects that these organizations will realize an average cumulative net gain of $17.52 million over five years.

## FIGURE 7

### Cost Benefit Analysis per Average Interviewed Organization




Source: IDC, 2014

Table 2 provides IDC's ROI analysis for the organizations' use of Worksoft Certify over five years. The five-year ROI analysis shows that the average organization interviewed for this white paper will spend $2.13 million per organization on Worksoft Certify and on preparing to use Worksoft Certify. In return, the average organization will realize $13.59 million per organization in benefits. This results in a net present value of $11.46 million per organization. This means that interviewed organizations will have an average time to break even on their investment in Worksoft Certify of 11.9 months and an ROI of 537%.

## TABLE 2

### Five-Year ROI Analysis

| | Average per Organization | Average per 100 Users |
|---|---|---|
| Benefit (discounted) | $13.59 million | $69,503 |
| Investment (discounted) | $2.13 million | $10,916 |
| Net present value (NPV) | $11.46 million | $58,586 |
| Return on investment (ROI) | 537% | 537% |
| Payback period | 11.9 months | 11.9 months |
| Discount rate | 12% | 12% |

Source: IDC, 2014

## CHALLENGES/OPPORTUNITIES

Organizations remain challenged to improve quality approaches to ERP applications by cultural and process barriers and lack of training and expertise. Typical test tools are expensive and require extensive training. They also do not provide context for business process workflows to address the need for adaptability in ERP and business applications. Intuitive automated solutions with strong business process support can help address these issues.

Worksoft has targeted automated functionality for testing and quality, and partnerships and integration with providers such as IBM and SAP augment Worksoft's position and extend functionality to fill out the Certify portfolio.

Opportunities exist for organizations to respond more quickly to changing business and competitive pressures by improving quality approaches via automation and increased efficiencies for staffing and velocity and by addressing this issue of business process validation for underlying core applications.

Organizations should evaluate and adopt automated solutions to address quality challenges with their SAP and other ERP applications. They should not only address the need for customization and impact analysis for their ERP applications but also understand business process workflow and validation to enable competitive agility.

Organizations should assess current gaps and challenges for SAP and ERP quality and transition to combined use of automated solutions along with appropriate process and organizational support to help cut costs, improve business adaptability, and leverage the most out of core business applications, which enable corporate execution.

## APPENDIX: RESEARCH METHODOLOGY

IDC utilized its standard ROI methodology for this project. This methodology is based on gathering data from current users of the technology as the foundation for the model. Based on these interviews, IDC performs a three-step process to calculate the ROI and payback period:

- Measure the savings from reduced IT costs (staff, hardware, software, maintenance, and IT support), increased user productivity, and improved revenue over the term of the deployment.
- Ascertain the investment made in deploying the solution and the associated training and support costs.
- Project the costs and savings over a five-year period and calculate the ROI and payback for the deployed solution.

IDC bases the payback period and ROI calculations on a number of assumptions, which are summarized as follows:

- Time values are multiplied by burdened salary (salary + 28% for benefits and overhead) to quantify efficiency and manager productivity savings.
- Downtime values are a product of the number of hours of downtime multiplied by the number of users affected.
- The impact of unplanned downtime is quantified in terms of impaired end-user productivity and lost revenue.
- Lost productivity is a product of downtime multiplied by burdened salary.
- Lost revenue is a product of downtime multiplied by the average revenue generated per hour.
- The net present value of the five-year savings is calculated by subtracting the amount that would have been realized by investing the original sum in an instrument yielding a 12% return to allow for the missed opportunity cost. This accounts for both the assumed cost of money and the assumed rate of return.

Because every hour of downtime does not equate to a lost hour of productivity or revenue generation, IDC attributes only a fraction of the result to savings. As part of our assessment, we asked each company what fraction of downtime hours to use in calculating productivity savings and the reduction in lost revenue. IDC then taxes the revenue at that rate.

Further, because IT solutions require a deployment period, the full benefits of the solution are not available during deployment. To capture this reality, IDC prorates the benefits on a monthly basis and then subtracts the deployment time from the first-year savings.

## About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

## Global Headquarters

5 Speen Street
Framingham, MA 01701
USA
508.872.8200
Twitter: @IDC
idc-insights-community.com
www.idc.com

---