



# Examples of Automated Business Process Discovery & Analysis

Erin Burke, Product Marketing, Worksoft Inc.

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## INTRODUCTION

Whether used for software testing or streamlining operations, an understanding and accurate record of business processes is critical. It's impossible to test or optimize a process without first knowing what the current process actually is. Unfortunately, process documentation and analysis are often based on idealized models, rather than on how users navigate the applications that form a complete end-to-end business activity.

Worksoft Analyze™ addresses this common challenge by providing always up-to-date process flow diagrams and documentation based on actual user interaction with the applications used to complete an end-to-end business process. This can now be performed seamlessly - the user simply goes about his or her normal job and the Worksoft platform does the rest.

### **Worksoft Analyze provides the ability to:**

- Automatically capture what users are doing as they perform their jobs - interacting naturally with the set of applications they use to accomplish tasks. This provides an accurate picture of how users are actually performing their jobs rather than what they are "supposed" to be doing.
- Automatically generate business process flow diagrams and statistical overlays for quick analysis of the time spent on individual business activities, the cost basis for each process, the number of users that follow a particular path, and much more.
- Automatically create training or compliance documentation for business processes, complete with screenshots and a narrative description of each step taken.
- Efficiently identify operational trends using business process analytics to create best practice flow diagrams.
- Deduplicate test cases when multiple users conduct the same activities.
- Create automation which may be imported into Worksoft Certify® in order to conduct business process testing.

## WHAT THIS PAPER WILL COVER

Organizations across industries, ranging from a dairy company to a large appliance manufacturer, have utilized Worksoft Analyze for both business process optimization and high-velocity testing scenarios. This white paper will delve into several recent, notable Worksoft Analyze use cases.

## CREATING BEST PRACTICE BUSINESS PROCESSES:

### A DAIRY COMPANY

A large dairy company was seeking to discover and standardize business processes across decentralized geographical divisions. Best practices were not documented and management lacked visibility into how basic processes were being conducted, such as how branch locations:

- Checked and stocked inventory
- Created sales orders for distributors
- Conducted contract fulfillment

With Worksoft automation running in the background, business users performed their activities as usual and processes were automatically captured. Using this actual data to analyze the end-to-end business processes, along with the help of a major consulting firm, the client was able to determine the best practice process paths for each geography. With this insight, best practices were established worldwide.

In addition, Worksoft automatically generated step-by-step documentation and flow charts for every captured process. The company used these to create consistent training materials for its worldwide operations. The same captured business processes also became assets that can be used for automated business process testing.



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## IMPROVING CALL CENTER EFFICIENCY:

### A TELECOMMUNICATIONS COMPANY

A Fortune 200 telecommunications company engaged a major consulting firm looking for ways to reduce the headcount of their 2,000+ call center employees. Given specific headcount reduction targets, the consulting company set about performing typical activities for an engagement of this type: they interviewed employees to determine the cost of process elements, eliminated and reduced steps when possible, and optimized overall processes. Although this helped meet headcount reduction targets, it did not fully achieve the project's objectives.

The consulting firm then brought in Worksoft, which worked hand-in-hand with the consultants. Call center employees performed normal day-to-day activities while Worksoft technology automatically captured the business process steps they took. The following automation assets were generated as a result of the work:

- Process flow diagrams were created to automatically consolidate like paths and shared processes into a single flowchart view. Path segments performed by individuals or departments were also joined together in the end-to-end process model.
- A complex collection of workflow statistics were captured and stored for analysis. These metrics included: click frequency, applications opened, sequence of activities, the objects each user interacted with, and how processes varied among multiple users. Heat map overlays were applied to process diagrams including the duration of each activity in aggregated and individual capacities. Statistics also included error information and the system execution time for each step. This helped to determine the cost per business transaction and for the overall process.
- Documentation was created detailing the exact transaction path each user took, including captures of each value entered, screen viewed, and button clicked. A detailed narrative of the process performed by each user was also generated.
- Process automation was created based on the actions performed across applications.
- Using these assets as a starting point, the consulting company applied a custom heat map matching every process step with the associated cost to manually execute the process. Analysts then easily identified which elements to automate first for the most effective return on investment (ROI). This helped pinpoint what the company could do to fully meet their objectives, and what FTE reduction targets could be achieved in a subsequent engagement proposed to the telecommunications company. Simply stated, automation helped the consulting firm deliver success, and set the stage for future improvement projects.



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## LEVERAGING ANALYTICS TO PRIORITIZE INVESTMENT:

### A LARGE APPLIANCE MANUFACTURER

The manufacturer was seeking to discover, visualize and document test cases for their SAP environment. While some of these test cases were regularly executed, others had not been discovered and created. In order to increase test coverage, the appliance manufacturer wanted to automatically discover the individual paths users took to complete various tasks.

The company employed Worksoft technology to capture actual processes performed by business users. Existing test cases were also used to provide a holistic view of coverage analysis for actual processes performed vs. test coverage. The manufacturer then overlaid analytics including error rates, execution time, and SAP transaction code execution rates to increase visibility, dramatically reduce analysis time, and ensure 24x7 availability of their SAP environment.

#### Future plans:

- The organization plans to have their business analysts use Worksoft Analyze to record ideal optimized processes. After performing each task exactly as a normal end-user would, the company's analysts will have access to a detailed interactive process model, and can generate training documentation that includes screenshots and a narrative description of each step taken.
- Optimized processes will then be exported directly into Worksoft Certify®, where they can be automated and tested with a single click.



“Analyze gives us key insight into our business we wouldn't otherwise have. With Analyze, we can visualize the actual paths users are taking throughout a business process.”

## VISUALIZING AUTOMATED TEST RESULTS:

### A MAJOR UNIVERSITY

A major medical university regularly used Worksoft Certify® to perform automated tests against a wide variety of applications, ranging from SAP to dynamic web apps. They also employed Worksoft capture technology that allows users to perform normal, uninterrupted business activities while recording interaction and data input across applications.

The university had Certify tests spanning multiple applications and processes. Certify displays the test results in a tabular format, allowing users to quickly and easily identify which tests passed and failed. However, the testing team also wanted a method for visual depiction of the process flow and associated errors. Moreover, they wanted their model to display test results in real-time without the effort manual creation and updating of flowcharts requires.

### **The university imported their tests from Certify into Worksoft Analyze and achieved the following benefits:**

- Automatic business process modeling covering end-to-end tests, and each business activity within a test, made it easy to visually identify trends across the hundreds of tests in the repository.
- Automatic test deduplication consolidated and visually identified duplicate tests. This significantly reduced overall solution maintenance and reduced end-to-end test execution time.
- The automation engineers could easily view and connect multiple test fragments into a single orchestrated flow, increasing efficiency and coverage.
- Accompanying analytics provided testers with the ability to overlay either preset or custom statistics on top of the end-to-end test flow. Captured analytics included: elements of processes which contained errors, system run-time for each test, weighted priority for each element in the process, and overall frequency of user execution for various elements of the application under test. This led to a wealth of insights on test optimization and defect removal prioritization.



Quick and easy to visually identify trends across the hundreds of tests in the repository.

## CONCLUSION

As a leader in intelligent automation technology, Worksoft enables high speed discovery and testing of business processes across applications. Worksoft Analyze™ automates complex process documentation, visualization and analysis activities. Armed with data driven business process knowledge, organizations can make accurate and effective decisions on how to optimize processes by determining which business activities to eliminate, re-engineer, or automate.

## ABOUT WORKSOFT, INC.

Worksoft® is a leading global provider of automation software for high-velocity business process testing and discovery. Enterprises worldwide use Worksoft intelligent automation to innovate faster, lower technology risk, reduce costs, improve quality, and deeply understand their real end-to-end business processes. Global 5000 companies across all industries choose Worksoft for high speed process discovery and functional testing of digital, web, cloud, mobile, big data, and dozens of enterprise applications, including SAP®, Oracle, and Salesforce.com.

**For more information, contact Worksoft at [info@worksoft.com](mailto:info@worksoft.com) or visit [www.worksoft.com](http://www.worksoft.com).**

### CORPORATE HEADQUARTERS

15851 Dallas Parkway  
Suite 855  
Addison, Texas 75001  
ph. +1.972.993.0400  
ph. +1.866.836.1773  
[info@worksoft.com](mailto:info@worksoft.com)

### CUSTOMER SUPPORT SERVICES

ph. +1.800.858.0813  
[support@worksoft.com](mailto:support@worksoft.com)