

SUPERVALU



FAST FACTS

Company

SUPERVALU is the leader in the grocery retailing industry

Industry

Retail

Geography

US

Challenges

- Ensure software delivery predictability
- Support iterative development
- Improve business-IT communication and comply with Sarbanes-Oxley

Solution

on Borland® CaliberRM™

Results

- Supports compliance with the Sarbanes-Oxley Act
- Reduced build times and increased requirements reuse
- Improved business-IT alignment

EXECUTIVE SUMMARY

SUPERVALU is a leader in the grocery retailing industry. Customers recognize the stores in SUPERVALU's retail network by their trusted names, including Acme, Albertsons, biggs, Cub Foods, Jewel-Osco, Farm Fresh, Shoppers, Shaw's/Star Market, Shop 'n Save, Save-A-Lot and more. SUPERVALU sought to ensure its diverse retail companies were best leveraging IT resources by creating an internal team named "Enterprise Advantage". The goal of Enterprise Advantage was to leverage new processes and technologies to create a competitive edge and improve operational efficiency. Targeting the most critical of processes, the Enterprise Advantage team aimed to perfect software requirements management. Today, the SUPERVALU Enterprise Advantage team relies exclusively on Borland® CaliberRM™, which is part of Borland's requirements definition and management solution. Borland CaliberRM provides day-to-day visibility to the right stakeholders in the organization as the IT team iteratively delivers critical IT projects that help SUPERVALU lower their costs and drive revenue.

COMPANY

SUPERVALU INC. is one of the largest companies in the United States grocery industry. Customers recognize the stores in SUPERVALU's retail network by their trusted names, including Acme, Albertsons, biggs, Cub Foods, Jewel-Osco, Farm Fresh, Shoppers, Shaw's/Star Market, Shop 'n Save, Save-A-Lot and more. With its rich, 135-year history of food-industry innovation, SUPERVALU combines expertise in grocery retail and supply chain operations. SUPERVALU holds leading market share positions across the U.S. with its approximately 2,500 retail grocery locations. Through SUPERVALU's nationwide supply chain network, the company provides distribution and related logistics support services to more than 5,000 grocery retail endpoints across the country. SUPERVALU currently has approximately 200,000 employees.

CHALLENGES

Shortcomings in requirements definition and management lead to excessive rework on software projects and to delivered products that fail to achieve full customer satisfaction. Multiple studies have indicated that roughly 50 percent of the defects identified on software projects can be traced back to errors in the requirements. Good requirements practices can accelerate software development. The process of defining business requirements aligns the stakeholders with shared vision, goals and expectations. Substantial user involvement in managing changes to agreed upon requirements increases the accuracy of requirements, ensuring that the functionality built will help users do their jobs more effectively.

Established in 1997, Enterprise Advantage was chartered with consolidating the IT systems of SUPERVALU's multiple retail banners. As part of the company's Retail Merchandising division, the team began to build advanced processes and functionality for a retail hosting system made up of custom and packaged enterprise applications. The Enterprise Advantage team at SUPERVALU understood that establishing good requirements not only creates higher quality software applications, but also increases development team efficiency, saving the company time and money. The team also identified the opportunity to reduce confusion and conflict related to prioritization and implementation of requirements by establishing a fact-based approach to requirements management. A documented, traceable approach would improve the organization's ability to implement applications that would best serve the needs of the business as a whole and eliminate "one-off" requests.

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—Ken Schneider, Systems and Requirements Analyst at SUPERVALU

Ensure software delivery predictability

Due to the sheer scope and sophistication of the projects the Enterprise Advantage team undertakes, manual requirements elicitation and management was unrealistic. The process for gathering requirements from the organization included:

- Drafting or modifying business product requirements (BPRs) from stakeholders
- Drafting systems requirements (SRs) from individuals in IT
- Creating use cases from the requirements
- Reviewing requirements with appropriate stakeholders
- Agreeing that the requirements were correct or needed to be modified
- Approving the requirements to be coded and;
- Enabling QA to create test scripts from the requirements use cases.

Conducting this process manually would have required a massive amount of man hours and left room for innumerable errors, subjectivity and interpretation, and would have lacked a reliable audit trail. Applying automation and structure would result in improved predictability for both IT and business stakeholders whether they were internal or external to the organization.

Support iterative development

By using an iterative development approach, the team sought to release new software builds with enhancements to existing applications and new functionality into production as quickly as possible to meet business needs. Tasked with meeting a rapid build and release schedule, team members needed to know the exact state (draft, submitted or approved) of every software requirement in order to correlate how the state of a requirement would impact dependencies of the project. The ability to understand the impact a requirement change would have on estimated cost, testing and delivery time lines is also critical. The team also needed an automated requirements management system to provide on-line, real-time visibility and quickly generate appropriate reports for management and key stakeholders.

Improve business-IT communication and comply with Sarbanes-Oxley

Communication is a constant challenge in software development. Managing differences of opinion related to requirements prioritization, budget and scope can be as much of a challenge as completing the development work itself. SUPERVALU’s Enterprise Advantage team’s business customers had historically defined, prioritized and applied changes to requirements through hallway conversations, email, and other communication methods that were difficult to capture and track. This led to a breakdown in communication that negatively impacted the IT organization’s ability to collaborate with the business. Therefore, the team sought to standardize on an automated system for requirements management that would improve business-IT alignment and improve internal customer satisfaction.

Compliance with the Sarbanes-Oxley Act (SOX) also drove the need for an automated solution for requirements management. SOX compliance would be supported through the ability to trace application functionality changes back to the justification, or requirement, for the change.

SOLUTION

SUPERVALU’s Enterprise Advantage team selected Borland® CaliberRM™, which is part of Borland’s requirements definition and management solution, over competing solutions to help improve iterative development efforts, communication and predictability.

“Our IT team was pulled from throughout the business to put new processes and tools in place that would help the company move beyond legacy systems and create an enterprise advantage,” said Bill Schulte, development architect at SUPERVALU. “Borland CaliberRM helped give us a clear picture of the task that lay before us by putting structure around the myriad requirements coming in from the business and galvanized our team.”

Today, business analysts within the Enterprise Advantage team continually enter requirements and manage them throughout the application lifecycle using Borland CaliberRM. The require-

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—Bill Schulte, Development Architect at SUPERVALU

ments are entered and then managed in different states. For example, “draft” means the business analyst and stakeholder are still defining the requirement and signals that development should not start work from the requirement. Business Analysts change the status to “reviewed” once the business stakeholder has approved the requirement. At this point, if the requirement is based on a priority, it is pushed to management for review and approval before development even sees the requirement. At that time, management changes the status to “submitted,” which signals development to begin work on that particular requirement. For many development teams, communication is the number one challenge, and SUPERVALU’s Enterprise Advantage team has eliminated errors by communicating status and associating all status comments to requirements exclusively within the tool.

The team uses requirements in Borland CaliberRM to build external use cases. Traceability is then used to tie those use cases back to requirements in Borland CaliberRM. The relationship of original business product requests, requirements and use cases managed in Borland CaliberRM provides consistent visibility to users across the lifecycle and supports compliance with the Sarbanes-Oxley Act.

“A requirement has to be approved in Borland CaliberRM before any requirements analysis or development work can begin,” explained Ken Schneider, systems and requirements analyst at SUPERVALU. “In addition, in order to make any changes to a use case, design document or code, a requirement supporting the change must be approved in Borland CaliberRM. The tool supports our process and makes compliance with the Sarbanes-Oxley Act much easier.”

The team also uses the Discussion Tab feature extensively to document stakeholder feedback on requirements. Prior to Borland CaliberRM, discussions regarding requirements, including justification, prioritization and adjustments, were conducted over email or even in hallway conversations, with much of the detail and history being lost. With Borland CaliberRM, all of this valuable interaction is stored at the requirement level in the repository, instead of on a user’s

desktop or never documented at all. This allows the team to document requirements in the richest form possible without wasting time and effort pulling together input from any number of communication points. The ability to track this level of interaction around requirements also makes it easier to show stakeholders why decisions were made and why certain functionality does or does not make it into builds, which creates accountability among project stakeholders.

Enterprise Advantage consists of 60-70 IT professionals, with a dozen or so who are developers. In the past two years, the team has been able to deliver 17 software builds (which include multiple applications) to production, with each build typically consisting of 20-30 applications of varying size and scope, including enhancements, new functionality and entirely new applications.

“Without a tool to support our requirements management process, we would struggle to maintain a release schedule of a magnitude of 17 builds every 2 years,” said Schulte. “Borland CaliberRM helps us communicate better, be more predictable in our software delivery and improve the quality of our projects.”

Perhaps most importantly, Borland CaliberRM is allowing the Enterprise Advantage team to conduct a ‘post-mortem’ on projects once they are completed. Through the ability to report on justification and prioritization related to specific requirements, the Enterprise Advantage team can show project stakeholders why certain decisions were made throughout the software development lifecycle. If a project misses its projected completion date, the team can audit and report on the factors that caused this to happen, which greatly improves the IT organization’s ability to communicate with the business. For example, using Borland CaliberRM, the team can report on how long a requirement sat in a specific status and who was accountable for that piece of the process. This ability to audit and trace requirement and status throughout the software delivery lifecycle enables IT to better communicate with the business and improves their ability to deliver on stakeholder expectations.

RESULTS

Using Borland CaliberRM, the SUPERVALU Enterprise Advantage team automated its requirements management process to provide greater predictability and visibility across the entire development lifecycle.

Supports compliance with the Sarbanes-Oxley Act

Because of the audit and traceability features in Borland CaliberRM, the tool helps the SUPERVALU Enterprise Advantage team support compliance with the Sarbanes-Oxley Act. This enables the team to aggressively deliver value to the business while lowering its operating risk.

Reduced build times and increased requirements reuse

Combining the Enterprise Advantage team's process with Borland CaliberRM has been a huge time savings for the organization, said Schulte. "Since implementing Borland CaliberRM, we are able to extensively reuse our systems requirements from project to project, which eliminates requirements rework and supports efficiency for the entire application development lifecycle."

Improved business-IT alignment

When a project is finished, the SUPERVALU Enterprise Advantage team typically has a satisfied customer. If for some reason the stakeholder is not satisfied, then the team is able to instantly produce the use cases, design specifications, data mapping, and code that was generated from the approval of a particular requirement to uncover the disconnect. "We are a team of business-driven implementers," concluded Schulte. "With Borland CaliberRM, information about requirements is at our fingertips and can easily be shared with our business stakeholders, which makes our job easier, more efficient and certainly more effective."

Borland is the leading vendor of Open Application Lifecycle Management (ALM) solutions - open to customers' processes, tools and platforms - providing the flexibility to manage, measure and improve the software delivery process.