SUCCESS STORY: BOMBARDIER ACCELERATES ITS SAP ROLLOUT

EXECUTIVE SUMMARY

Bombardier is a global company with business operations covering manufacturing, engineering and services, with 65,400 employees in 23 countries around the world. Bombardier managed to boost the number of SAP rollout projects during a business downturn by successfully deploying Worksoft Certify® software tools to automate its application testing activities using a minimum number of internal SAP experts. Key findings include:

▶ SAP test automation tools can expedite SAP change management processes, especially if they offer highly reusable test scripts and are really suitable for use by business users.

▶ Robust SAP change control processes require automation of as much application testing activity as possible.

▶ Test automation scripts, in general, are notoriously difficult to maintain.

▶ End-to-end business process testing scenarios must include all interfaces to be fully representative.

▶ Worksoft Certify has demonstrated the ability to be very maintainable, due to its business user suitability and object orientation.

▶ High levels of test script reusability have been realized with the Worksoft Certify testing tool.

▶ Bombardier achieved the delivery of high-quality, complex SAP application changes with minimal production issues, including performance. This resulted in a lower cost of support delivery at go live.

▶ Bombardier was able to conduct four testing cycles per new project, compared with two before Worksoft Certify was implemented, with the absolute minimum of testing resources involved.

THE CHALLENGE

Bombardier had faced a number of SAP customer life cycle support challenges. Here is a profile of SAP product usage at Bombardier:

▶ First SAP go-live: 2000

▶ SAP live applications: SAP ECC 6.0 for HR, plus financials and logistics modules, Supply Chain Management, Extended Warehouse Management, Business Warehouse and Enterprise Portal

▶ Users: 19,000 active SAP users in total

▶ Database size: 6.5 terabytes, ECC 6.0 production system

SAP business applications are highly complex and require a long-term life cycle focus to fully realize expected business benefits and to minimize ongoing application management costs. These costs include activities for application maintenance and small enhancements to existing SAP systems, as well as the all-important new projects required by business users. This all means that highly effective SAP change management is vital.

For many years, SAP has provided the Solution Manager software tool to help address these life cycle support challenges. Earlier versions of the product were hard to implement, but each new version has provided new capabilities that have made it easier to implement and operate the optional Solution Manager modules.

Testing is a central activity within the SAP change management process. This includes testing of new functionality, regression testing of existing business processes or stress testing to resolve a performance issue. But testing is so expensive. Automated test tools can help, but only if they are highly reusable throughout the SAP life cycle. While some users of SAP Test Acceleration and Optimization (TAO) have reported improvements in this area, many companies still struggle to beat this reusability challenge and measure a real payback from such heavy investment.

THE SOLUTION

Bombardier decided to streamline its life cycle support processes, then automate them as much as possible with proven software tools. At the same time, Bombardier was under pressure to reduce its overall SAP life cycle costs, while undertaking many planned SAP implementation projects.

APPROACH

In 2006, Bombardier needed to implement the Human Resources (HR) module within SAP ERP as part of an important new global HR transformation. Bombardier took the opportunity to prepare for this vital project by implementing as much of Solution Manager 3.2 as possible at the time.

This Solution Manager project required some two days of installation, configuration and setup, and approximately one year to fully imple-

RECOMMENDATIONS

▶ Optimize the way that your SAP change management processes handle all testing activities.

▶ Include the creation of test automation scripts for any new SAP functionality within your SAP change management processes.

▶ Use expert SAP testing teams to develop detailed test scenarios that accurately match your business processes and are highly reusable by business process experts.

▶ Select an easy-to-use testing system that can handle the full end-to-end business process and lets you achieve very high levels of test automation.

ment all of these modules, using just two internal full-time-equivalent (FTE) resources. The change management module was very new at the time and required a lot of intensive support messages to SAP to get it working properly. Solution Manager 7.0 has since become much more reliable, but it remains to be seen if the new version, Solution Manager 7.1, has further improved this. However, Bombardier succeeded in getting the SAP Solution Manager project documentation and change management functions working properly in time for its bigger SAP HR new implementation project.

When Bombardier moved to the next step of its life cycle simplification and automation project, it faced additional concerns. The company wanted to bring all of the non-SAP HR applications within the scope of the new project documentation and change management functions. However, like many other SAP customers, Bombardier quickly discovered that it was labor-intensive to manually retrofit all of the detailed solution documentation settings into the Solution Manager Business Process Repository.

GETTING EXPENSIVE SAP TESTING OPERATIONS UNDER CONTROL

Until May 2009, Bombardier had used HP QuickTest Professional (HP QTP) software tools to automate its SAP testing operations. However, Bombardier had found that this generation of test automation tools needed too many technical programming skills to support, which resulted in poor reusability. Faced with a growing list of planned SAP development projects, as well as an overall resource shortage, Bombardier embarked on an altogether simpler SAP testing strategy. Bombardier selected the Worksoft Certify® for SAP testing suite, knowing that business users would find it easier to use, with fewer IT resources to support it. By reducing its SAP testing costs, Bombardier planned to simultaneously squeeze its overall SAP life cycle costs.

Worksoft Certify proved easy to use, to the extent that even university intern students with zero SAP experience, could, under the guidance of an SAP functional expert, set up the testing of new SAP business processes. It took approximately 15 weeks to build 50 integrated, reusable SAP test scripts for some 30 SAP business processes, involving around 120 transaction codes. This was complicated by the need to include all interfaces within the processes in order to make them fully representative. All of these test scripts were set up by just three FTEs.

RESULTS

As a result of this process improvement work, the following benefits were obtained:

▶ Delivery of high-quality, complex SAP application changes, with minimal production issues, including performance. This resulted in a lower cost of support delivery at go live.

▶ Ability to conduct four testing cycles per new project, compared with two before Worksoft Certify was implemented, with the absolute minimum of testing resources involved.

▶ Ability to reliably handle more SAP project releases per year, using more automated regression testing.

▶ High levels of test script reusability have been realized with the Worksoft Certify testing tool.

▶ Ability to streamline User Acceptance Testing (UAT) by stepping through the automated test for each end to end business process with business users, and then using the generated results to obtain sign off.

LESSONS LEARNED

Any company considering the procurement of an automated test tool for its existing manual SAP testing procedures should carefully consider the following recommendations:

▶ End-to-end business process testing scenarios must include all interfaces to be fully representative.

▶ All types of SAP projects, large and small, can benefit from an SAP automated change management process incorporating automated regression testing, but only if it is easy to set up and execute.

▶ SAP change management processes should include the creation of any new automated test scripts for any new functionality, and early involvement is the key.

▶ Dedicated testing teams and clean, detailed test cases are always needed to successfully automate SAP testing operations.

▶ Setting up and running SAP automated testing operations does not require specialist technical skills if tools like Worksoft Certify are used.

▶ Bombardier found that close integration is needed between Solution Manager and the Worksoft Certify testing tool. SAP and Worksoft both now offer this with a certified test automation framework and supported interface in the latest version of their products (i.e., Solution Manager 7.1 and Certify 8.5.1, respectively).

▶ Strong executive support is needed for the overall SAP release management process. You have to get experienced business process experts involved in workshops for the definition and sign-off of all change management types, as well as test scenarios.