

SimCorp A/S

FAST FACTS

Company

SimCorp develops and markets integrated investment and treasury management systems globally.

Industry

Financial Services

Geography

EMEA

Challenges

- Automate two-week manual test cycle to improve quality
- Maintain software quality levels as application functionality expanded
- Reduce errors caused by patch release process

Solution

- Borland® SilkTest®

Results

- Smoke tests and menu tests run in hours, allowing prompt identification of issues
- Comprehensive patch release procedure ensures no new errors are introduced into the application code base
- Verifiable, repeatable test process thoroughly validates application functionality

COMPANY

SimCorp develops and markets integrated investment and treasury management systems. Its applications help customers around the globe perform the many tasks needed to conduct business in today's complex international financial markets. Representative customers range from multinational investment banks to local securities brokerages and include such international powerhouses as SmithKline Beecham, Chiquita Brands International, LF Wasa Kapitalförvaltning, Deutsche Genossenschafts-Hypothekenbank AG, Frankfurter Sparkasse, MEAG Securities, Gjensidige NOR Kapitalförvaltning, Sampension, Zurich Insurance and Suva. At its headquarters in Copenhagen and offices and subsidiaries around the world, SimCorp employs about 650 employees.

SimCorp's primary offerings are SimCorp Dimension (formerly called TMS2000) and IT/2. SimCorp Dimension, an investment management system, gives financial institutions the functionality necessary for volume trading of securities and other financial instruments. IT/2 is SimCorp's powerful, cost-effective solution for corporate treasuries, featuring integrated cash, deal and risk management functions.

CHALLENGES

Nina Rasmussen is the manager for the SimCorp Dimension Test Department. The department has been utilizing Borland® SilkTest® for regression and verification testing for several years. SimCorp Dimension is written in C++ and APL. The technical environment includes Oracle® database software and supports the Windows NT®, Windows® 2000, Windows XP™ and UNIX® operating systems.

Rasmussen explained the testing process, "Major releases are issued semiannually. Minor releases and/or patches are issued as needed. The testing process is conducted on two levels. First, the Test Department runs a number of batch jobs—at a macro level—to be sure overall system functioning is accurate. Borland SilkTest is then used to test every part of the system in detail and validate all results. In between our major releases we may issue patch releases, which are also put through a rigorous process of testing. The integrity of this process is high and ensures that we are not introducing problems into the SimCorp Dimension code base in between major releases.

"Our initial impetus to automate was to improve quality," continued Rasmussen. "SimCorp Dimension was evolving into the fully featured, robust solution it is today. We were initially allowed two weeks to test—and were performing all of the testing manually. In the early days of the product [when still known as TMS2000], we got by. But over time, with the powerful functionality that was being added into the application, we needed to ensure we could continue to release a high-quality product; two weeks of manual testing could not guarantee us that."

SOLUTION

Borland SilkTest automation allows SimCorp to increase quality and test coverage of SimCorp Dimension with a verifiable, repeatable testing process. Rasmussen and her team researched all of the available test tools and ultimately chose Borland SilkTest. Rasmussen reviewed the reasons: "There were several. First, Borland SilkTest worked with SimCorp Dimension; compatibility was an issue for some of the other products. Second, more functionality was provided within Borland SilkTest and we were able to quickly code minor test scripts ourselves. Further, with SilkTest we could flexibly set parameters that provided an even higher level of compatibility with SimCorp Dimension. Because our application was

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— Nina Rasmussen, Test Department Manager, SimCorp

partially developed in APL, we had some problems with fields dynamically changing types. We turned these field types into text fields—and in so doing, Borland SilkTest was able to recognize even more of the application.

“Borland SilkTest has been terrific for us in producing verifiable, repeatable results,” said Rasmussen. “Our batch jobs validate the functionality of the system at a macro level. We then use SilkTest to verify the results at a more detailed level. It is far easier to locate errors with Borland SilkTest—automation catches the errors that would have gone undetected by mere manual testing. Our Borland SilkTest automation is faster too, and requires fewer resources once implemented.

“Just to give you one example,” added Rasmussen, “we have 35 different security types. If one changes, of course we will test that one. But there may be a ripple effect throughout some of the others. So, we need to retest all 35. Manually this would be a horrendous task; with our batch jobs and Borland SilkTest automation, it’s simple.”

RESULTS

SimCorp runs two major types of tests with Borland SilkTest. The first is a smoke test, which opens all windows in the application and closes them again. Rasmussen discussed the advantage of having Borland SilkTest run the smoke test versus manual testing: “The smoke test takes 14 hours to run because SimCorp Dimension contains 2,000 screens. Manually it would take much, much longer—and would be excruciating work.”

The second test is SimCorp’s menu test. For this test, Borland SilkTest runs a script against a screen that performs a task such as saving a record, then selecting that record, changing it, and saving it again. After the record is saved with changes,

Rasmussen’s staff uses Borland SilkTest to verify that the result obtained was the result expected, “This test takes four hours to run with Borland SilkTest. Manually, it would take at least one week.”

Interestingly, the test cycle has not shortened with automation. There are several good reasons for that, as Rasmussen explained, “When we were testing manually, we were not allowed more than two weeks for testing. That is not a lot of test time—particularly in a nonautomated environment. Now we have two months to test—which is more realistic. Also, the application has grown in functionality over the last several years, so it has become more complex to test. In fact, our automation has been essential because we can cover so much more of the application. We could never have kept up with the increased application functionality if we were still testing manually. So timing is deceiving! Yes, we are taking longer to test, but now in two months we are covering the application like never before with a verifiable, repeatable testing process.”