Overview
Sage is the world’s third largest provider of Enterprise Resource Planning (ERP) software. Thousands of businesses rely on the Sage ERP X3 application so stringent product testing is vital. Sage has boosted the speed and efficiency of its test processes with a combination of Micro Focus Application Lifecycle Management software, its integral relationship with ValidIT, and the adoption of SCRUM agile methodology.

Challenge
Enterprise Resource Planning (ERP) software is the lifeblood of the modern business. From sales and manufacturing to finance and customer relationship management, ERP modules span the whole commercial spectrum and any failures can bring serious consequences. Rigorous product testing is vital and it’s a top priority for Sage, the world’s third largest ERP provider. Headquartered in the UK, Sage Group is a multinational enterprise software company with offices in 24 countries and 6.1 million customers worldwide.

Launched in 2013 to deliver growth across the European mid-market, its subsidiary, Sage EME (Enterprise Market Europe) manages a range of products, including the flagship application Sage ERP X3. For over 10 years, Sage ERP X3 has been a proven and comprehensive ERP solution addressing midmarket companies’ specific requirements and challenges in industries including manufacturing, services, distribution and many more. Over 4,800 customers in 100 countries worldwide use Sage ERP X3.

Sage EME has a Sage ERP X3 Research and Development (R&D) team of 150 including 30 Quality Assurance (QA) staff spread over 12 sites in the UK, Germany, Spain, Portugal and France. Concerned with testing Sage ERP X3, the teams previously used IBM's Rational Robot for automated testing but this was not well adapted for new web-based technologies and when the workload reached 3,000 automated scripts, maintenance costs were just too high.

Sage ensures the quality of its flagship ERP application Micro Focus® ALM.

At a Glance

- **Industry**: Software & Technology
- **Location**: Paris, France
- **Challenge**: Increase test efficiency and support a move to SCRUM agile methodology.
- **Products and Services**: Application Lifecycle Management, Quality Center, Unified Functional Testing, Performance Center, Business Process Testing, LoadRunner

**Results**

- Provided the ability to support 400 percent increase in QA teams’ productivity
- Deployed 500 automated scenarios in six months instead of two years.
- Sped time to market, increasing release cycle from three years to six months.

"We have confidence when implementing fixes and patches and when delivering upgrades because the product is tested rigorously with Micro Focus and supported by ValidIT."

SOLON BARRACLOUGH
Head of QA, Product Development for Sage ERP X3
Sage EME
Sage ERP X3 also needed new automated tools to support its move to SCRUM methodology rather than the previous Waterfall variant. SCRUM methodology is an iterative and incremental agile software development framework for managing product development.

“SCRUM methodology requires a lot of testing at different phases of the development cycle,” explains Solon Barraclough, head of QA team, Product Development for Sage ERP X3, Sage EME.

“It’s an ongoing process that requires a lot of non-regression testing because we deliver by increments internally and each increment needs to be stable and working fully. In the past we used waterfall methodology with development done first and testing afterwards. Because we now have to constantly re-test every script, we needed a tool that would deliver automated testing but was also easy and cost-effective to manage and would save time.”

**Solution**

Sage EME, successfully delivered projects and training courses since 2006 managed by ValidIT using products such as Micro Focus LoadRunner, naturally turned to ValidIT to inquire about new automated applications. ValidIT, with its experience of Application Lifecycle Management suite, made successful presales presentations which were instrumental in Sage’s decision to replace IBM along with a proof-of-concept on Micro Focus Unified Functional Testing (UFT).

Going further than just test automation ValidIT extended the demonstration to other products in the suite: Micro Focus Quality Center with the Micro Focus Business Process Testing module, and Micro Focus Performance Center. ValidIT’s expertise in agile development also enabled it to open up discussions with SAGE about SCRUM methodology.

“Our UK Sage colleagues were already using Quality Center and UFT very successfully, and this gave us the opportunity to spread license costs. Also, from their experience, and the knowledge ValidIT had demonstrated, we knew that Micro Focus would meet our needs,” says Barraclough.

“We decided to acquire Performance Center because we already knew the tool quite well. Now we have dedicated people who are expert on this product and we have since purchased Quality Center with the BPT module and UFT.”

Part of the Application Lifecycle Management suite, Quality Center is a quality management application for software quality assurance including requirements and test management; along with Business Process Testing’s BPT module, UFT provides functional and regression test automation for quality assurance.

Sage ERP X3 currently has seven European site licenses for Quality Center and six for UFT plus global licenses to cover North American teams. It has 18 SCRUM development teams working on different parts of the Sage ERP X3 product and every team has its own delivery
planning. They work applying Agile development’s ‘sprints’ and every development is tested and validated at the end of each sprint.

“There are two teams using the products. One deals with performance and we have two experts working only on Performance Center,” explains Barraclough. “For functional testing, we have a dedicated automation team in the quality department with five people in France, two in North America and one in the UK. They are the technical experts who use Quality Center and UFT full-time. They receive testing scenarios from QA analysts in other SCRUM teams all over the world and provide us with the testing plans.”

“First, QA analysts do the tests manually and they then ask the automation teams to automate the scenario. When this is done, the automation team record a video of the test execution using Screen Recorder connected to QC. They then give the video back to the functional QA analysts who validate that the test is correct.”

**Results**

Working with this solution has brought significant efficiency and productivity benefits for Sage EME as Barraclough explains: “BPT enables us to separate the business logic and technical information parts of the testing which allows our QA staff to focus on their own domains.

“The QA managers can concentrate solely on the business applications and the automation team can concentrate on technical implementation and this is a much more efficient process. The increased efficiency means that the functional QAs achieve three to four times more testing because they are not interrupted by technical issues, which was the case with the prior tools.

“Using the software and the relationship we have built up with ValidIT has also enabled us to achieve our top priority which was to reduce maintenance cost. Today, when a change is made in the application interface, we only have to modify one script in Quality Center, instead of dozens and dozens of scripts, working on the same screen.

“It’s now ten-times quicker to maintain the scripts and that will allow us to reduce our patch list delivery cycles because we can test them faster than before. It used to take something like three weeks just to validate the functional part of a patch list over all the different QA cycles. Now with the new solution we can do it in one week. We are even considering delivering more frequent patch lists to our customers, reducing the risk of regression and resulting in lighter packages.”

Increasing test efficiency with Micro Focus and SCRUM methodology has also accelerated time-to-market. Previously there was a three-year release cycle for Sage ERP X3 but that is now being switched to just six months.