Major Manufacturer

StarTeam® supports a boost in developers’ satisfaction by reducing software build failure from 25 percent to 0.2 percent while saving time through process automation.

Challenge
One of the company’s divisions develops solutions through major software development centers around the world. Maintaining updates and configurations for all the software builds in progress is a big job, as its Software Configuration Manager explains: “All software comes through our team and we ensure that the correct information and configuration is applied, depending on language and market requirements, before we distribute the software to its final destination. Software files arrived at our team in a variety of ways and the lack of consistency and traceability in the build process caused product issues in the field, negatively affecting our build quality and our development teams’ satisfaction. To position us for anticipated global growth, we had to create greater control over the software release cycle.”

He had a long history with Micro Focus® StarTeam, which was deployed as a defect tracking solution within the company, and wondered if this could be the answer for more effective code management, scalable and automated system builds, and creating test builds to support continuous integration.

Solution
He liked the version control and access controls provided within StarTeam, as well as the richness of the views and the different ways of branching and referencing. Soon all inputs for software builds were stored in StarTeam for distribution to global development teams. A small team builds and releases about 300 different product configurations annually, with a high degree of binary reuse and market-defined specialization, so having the automated support is vital for scalability. Using StarTeam as a single source of build inputs enabled an automated build process using Jenkins, Visual Build Pro, and other build support software, to dynamically configure builds using only two generalized build processes.

“StarTeam has given us unprecedented build stability. In fact, the build failure rate went from an unsustainable 25 percent to an unbelievable 0.2 percent, boosting developers’ satisfaction around the world.”

SOFTWARE CONFIGURATION MANAGER
Major Manufacturer

At a Glance

■ Industry
  Manufacturing

■ Location
  Wisconsin, USA

■ Challenge
  Inconsistent traceability in the software build process caused product issues in early development builds, negatively affecting engineering productivity.

■ Products and Services
  Micro Focus StarTeam

■ Results
  + Build failure rate improved from 25 percent to 0.2 percent
  + Build automation saved the team a day per week
  + Time to introduce new release cycle went from 3.5 weeks to just one week
  + Dramatically reduced time to introduce new products
The Software Configuration Manager comments on the use of StarTeam: “When the build process was a manual effort, we copied our builds to various locations and local servers. The copy effort alone would take eight hours after finishing each build. Working with Micro Focus and deploying StarTeam to automate and streamline the process, we reduced this to just 20 minutes; an incredible productivity gain for our team.”

Increasing the visibility into the build process has had unexpected benefits. He remembers a problematic configuration file: “Five different global teams were editing code pages, and different characters weren’t being consumed correctly. If any team member made a mistake, the whole process would fail and it was simply classed as a ‘build problem’. Understanding the particular inputs through StarTeam helped us create the configuration file automatically during the build process, resulting in much more stable builds.”

Tying build files to defect tracking has been transformative too. The team can easily sort, group, and filter on particular items, enabling them to identify issues much quicker. The company is subject to ISO certification, involving different team approvals and documentation. A StarTeam release task is dedicated to this, with full version control history so that binary deliverable rollbacks can be executed without any problems.

StarTeam labelling is used extensively to communicate between the development, build, and integration teams, to indicate which revision of the files should be used for the build.

**Results**

Using StarTeam has made the team much more scalable. The current release schedule is twice every year, but the automation has streamlined processes so much that the team could even manage monthly releases.

StarTeam’s open and customizable nature has encouraged close cooperation between development and engineering teams, fostering an innovative atmosphere.

The Software Configuration Manager is very clear on the benefits: “StarTeam has given us unprecedented build stability. In fact, the build failure rate went from an unsustainable 25 percent to an unbelievable 0.2 percent, boosting development team satisfaction around the world. The automated, overnight, builds save us an entire day each week. We are now a true service department focusing on integration requirements and adding value to our worldwide development teams. Whereas previously it could take us up to 18 months to develop a new product for a new market, we have recently done this within a single day!”

He concludes: “Micro Focus engineering went beyond the call of duty when they introduced new StarTeam features to automate setting up a new release cycle for us. Already this has enabled us to reduce the time we spend from 3.5 weeks down to just one week, with the expectation that within a year it will be completely automated. We are delighted with the support we receive from Micro Focus.”