

Kronos

Optimizing their Software Development Process with Micro Focus® AccuRev

Overview

Kronos is the most trusted name in workforce management. More than 20 million people use a Kronos solution every day. Its flagship Workforce Central suite is comprised of applications that help organizations staff, develop, deploy, track, and reward their workforce. Its engineering department, with legacies as discrete autonomous divisions, used to be organized separately around each Kronos product. The local and remote collaboration required for future development work drove the need to adopt a common infrastructure.

Challenge

Kronos had previously tried other solutions; however, none ultimately met their key requirements of an SCM system, including the ability to provide a dynamic platform for changing process and overall ease-of-use. For example, one group that used a popular commercial solution was not pleased with the product's requirement

that their engineering process conform to the tool's workflow—preferring instead that the tool adapt to the group's process. Another group using an open source solution was unhappy with the lack of support available to them.

In addition, many of the development groups were using a popular tool that presented some serious obstacles, such as branches that were too expensive in terms of computing resources, and merges whose difficulty was verging on the impossible. For some time, the teams also had to cope with an error-prone database. As an example of its lack of scalability, in one project a single branch was taking four to five hours, which provided an unacceptable opportunity for data corruption. (It now takes just seconds with AccuRev software.) On top of all of this, Kronos was also hitting constraints that required it to distribute its projects across five servers. In short, "Kronos simply outgrew this popular SCM tool's architecture and capabilities," explains Morris.

Solution

At a strategic level, Kronos needed a new solution. Kronos determined that AccuRev's unique stream-based architecture would give it a competitive advantage by enabling its desired optimal development processes. The methodology Kronos used to choose a vendor involved a year-long effort to compare its

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JOHN MORRIS

Director of Quality and Release Engineering
Kronos



At a Glance

■ Industry

Computer Services

■ Location

United States

■ Challenge

The organization needed to find a tool that would allow collaborative development on a common code base and would also facilitate the movement of large pieces of code between teams.

■ Solution

Use AccuRev's stream-based architecture to enable optimal development processes.

■ Results

- + Introduced an intuitive drag-and-drop interface
- + Provided remote access
- + Introduced TimeSafe architecture, which helps eliminate broken builds and indeterminate states

“We restructured our source tree to match our organization around a suite of products, which meant moving many thousands of files between projects and merging them again. In some cases, these huge merges could be done in a matter of minutes—operations we knew couldn’t be done at all in our existing SCM tool. We found we could get going with relatively light pain, and we jumped in and have no regrets.”

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Director of Quality and Release Engineering
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SCM requirements to industry offerings. During this process, AccuRev met a weighted set of Kronos’s criteria, including high-priority requirements to support advanced parallel development, ease of branching and merging, as well as being a commercial product with low-cost administration and excellent support.

Also critical to Kronos was allowing remote access to its SCM solution over existing connections. According to Morris, “Being able to accommodate remote development was a competitive advantage of AccuRev.” AccuRev is architected to enable seamless development via TCP/IP over both dial-up and broadband connections.

While AccuRev’s integrated StreamBrowser provides an intuitive drag-and-drop interface for most of Kronos’s needs, a powerful command line interface is available for commonly scripted operations like the nightly builds.

Kronos was impressed with AccuRev’s unique TimeSafe architecture, which eliminates broken builds and indeterminate states due to failures during check-in or synchronization and allows Kronos to reproduce any build at any time. An equally notable aspect of this architecture is its preservation of the past. Its ability to get any build from any point in the past was a feature the team judged to be of very high value based on experience with other SCM products that are unable to provide this functionality.

Results

The process identified a winner from among five leaders in the SCM market, including established file-based branch and label tools vendors. AccuRev prevailed with its ability to deliver next-generation SCM with low implementation, training, and ongoing costs, as well as a willingness to partner with Kronos’s other development tool vendors. AccuRev also exhibited an in-depth understanding of Kronos’s challenges and goals. In fact within one hour, AccuRev was able to create a targeted demonstration using the actual Kronos development environment.

Development, Quality Assurance, Release Engineering, the Architecture team, Custom Engineering, and Technical Publications were the functional groups involved in both the selection and the AccuRev deployment. They now use AccuRev software for mainstream development, creating patches (i.e., emergency repairs), handling service packs, and performing custom engineering as well as advanced research and development.

Kronos planned a large pilot project that would use AccuRev for six months before rolling it out to the rest of engineering. However, a groundswell of interest from release engineers and development leads, who found they needed AccuRev to do things they couldn’t do in their existing SCM tool, caused the implementation process to speed up.



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