



User Story: SoftCorp Unifies Teams with Code Collaborator

By Tom Jones, Senior Software Engineer, SoftCorp

A note from Smart Bear: Tom Jones and SoftCorp are fictitious names, but this content is not. One of our customers was kind enough to work with us to write this story, and then discovered that the legal department at his company would not approve its publication unless we removed all identifying details. Though his real name is omitted, the data, quotes, and stories below came directly from our customer.

Code Collaborator provided the foundation for us to standardize and improve our review process. Code review is now faster, more efficient, and a whole lot easier. The tool's automatic review metrics help us continue to improve our process. Now that we've rolled it out company-wide, we can more easily review 100% of our code.

SoftCorp specializes in building technology-intensive systems for sensitive government products. Hundreds of software developers, located across the country, work on a variety of mission-critical systems built for ruggedized, mobile government applications, so it's imperative that the code be reliable and fully functional in the field. As part of the Software Engineering Operations team, my role is to look at new tools, enhancements to current tools, and processes to see how we can increase efficiency.

Before working with Code Collaborator™, our company conducted code reviews in multiple ways: one team used Codestriker, another used a custom-built tool based on ClearQuest, and other teams tracked issues in spreadsheets. While some projects required 100% code review (which took large amounts of time), others reviewed only a few lines here and there. Still others didn't do code review at all. We knew we needed to perform more code review, but like many companies, we found it challenging to get developers on board. And time constraints further crippled the review process.

So we tried out Code Collaborator, running a pilot from March to June 2007. We found that Collaborator did a much better job of meeting our needs than anything else we'd used. After a very successful pilot project, our Operations group mandated that all SoftCorp developers use Code Collaborator to review their code because the improvement to our process was so pronounced. Starting in July 2007, SoftCorp deployed Code Collaborator throughout the whole company.

We've been very impressed by the improvements Code Collaborator has brought to our process. Before we started using it, our review process was not as structured or focused as we wanted it to be: we didn't have control over who was doing reviews and what was being reviewed. And the process took a *long* time. Many of our teams did Fagan-style reviews, gathering a whole team in a room for a review meeting for 1.5 -2 hours.

Platform: UNIX, Linux, Windows

Source Control Management Software: Rational ClearCase®

Development Environment: Various

Industry: Mobile Government Systems

The Challenge: Standardizing the code review process for hundreds of programmers across the country and conducting reviews for 100% of code.

"Using Code Collaborator, we find twice as many bugs in 25% of the time."

– Tom Jones

Now programmers do reviews at their own pace, on their own schedule, sitting at their desks – and reviews take them 20-30 minutes. That's a savings of about 75% of code review time using Code Collaborator.

Most importantly, because Code Collaborator is more efficient, easy to use, and developers actually use it, we're finding twice as many bugs in 25% of the time previously spent. With Code Collaborator, we can review 100% of our code. And senior management can assess detailed review metrics on a monthly basis.

We also get much better review participation now. We used to invite ten people to code review meetings, and five would show up. Now all ten participate and provide analysis, in far less time.

Our Operations team attributes Code Collaborator's efficiency improvements to several reasons:

- The software highlights changes in the code ("diffs") so they can be quickly identified. Our programmers don't have to shuffle through a bunch of printouts.
- Code Collaborator is integrated with our source control management systems, ClearCase® and CVS, so code reviews are easy to set up and conduct.
- Our reviews are now more accurate.
- People are more efficient because they're focused more on the actual review and don't get sidetracked. When a team is sitting in a two-hour meeting, the likelihood of discussions going off-topic is high.
- Developers can review code at their leisure when their schedules permit, rather than disrupting the day (or "the zone") with scheduled meetings.
- It's very easy to learn.

We find Code Collaborator's integration to ClearCase (source code management) and ClearQuest (problem reporting and tracking) especially helpful – it makes setting up reviews especially easy. We submit code to ClearCase in the usual fashion and Code Collaborator automatically pulls in the code for review and ensures that reviews are conducted and defects are tracked.

But to me, it boils down to ease of use. Code Collaborator makes it easier for code review to be adopted by everyone. Once people start using it, they all like it. All the other benefits we got boil down to the fact that if you have a tool that's easy to use and does its job well, people will use it. If it's complicated, they won't. We only did minimal training and that was mostly for managers; developers picked it up instinctively. With this tool, life is so much simpler for everyone.

It has also really helped that Smart Bear has great tech support. It's nice to work with a company that's big enough to put out a good product but small enough to care. And Smart Bear cares. You don't get that kind of personal service from most companies.

For more information on Code Collaborator, contact Smart Bear Software today!

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