Case Study

hp OpenView

Web Services Management Organization



IntelliJ IDEA spread like wildfire as HP software developers told their colleagues: "You have to try this IDE!"



A t HP, creating the best products is the bottom line. The company gets optimum results, they say, by letting developers pick their own tools. When a top Java developer tried and

loved IntelliJ IDEA, word spread fast. Now upwards of 70% of this geographically dispersed development team has made IntelliJ IDEA 3.0 their Java coding tool of choice as they build the company's innovative HP OpenView Web Services Management software portfolio.

A "Grassroots" Movement

Productivity is always important, in good times or bad, but in a challenging economy it can be the key to survival. When HP executives decided to expand the successful OpenView business into the Web services management space, they assembled some of the top software designers from around the company. Many of these engineers were expert Java developers who were using a variety of tools, from hand-coding text editors to free and commercial Java IDEs. Now market conditions required them to work even faster and produce even better code—a mean challenge at any time.

"Our group needs to create sharp, errorfree code without losing efficiency. Adopting IDEA was really a grassroots movement, developers sharing their experience with each other about refactoring inside IntelliJ IDEA. It caught like wildfire."

—Bruce Kratz, Director Engineering East,

HP Web Services Management Organization

A team member downloaded IntelliJ IDEA from the JetBrains website (www.jetbrains.com) and was immediately amazed that such an easy-to-use tool could be so powerful.

"JetBrains IntelliJ IDEA provided HP with the solution it needed to build enterprise Java technologies quicker, without sacrificing quality," says Bruce Kratz, Director of Engineering East. "One of the developers saw IntelliJ IDEA and tried it, and realized the refactoring capability was really great. We don't have a mandated IDE and people use whatever they choose, so more developers tried it. It was really catching on fast, so we purchased a license for everyone who wanted it."

He adds, "That turned out to be pretty much the entire organization."

IntelliJ IDEA at Hewlett-Packard

JetBrains IntelliJ IDEA has become the most widely used development tool in HP's Web Services Management Organization. At HP, where developers choose their own tools to let them produce the best possible code, more than 70 percent in the organization now use JetBrains IntelliJ IDEA 3.0. It simply makes coding more efficient, so they can be more productive—and that leads to the best possible software for their customers.

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HP "XP" Development Practices

HP's Web Services Management team has adopted Extreme Programming, or XP, which employs unique practices such as testing first, pair programming and refactoring to gain sharper,

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more efficient code. Many top developers favor XP because it puts the code first, increases team collaboration and stresses simplicity to produce clear, specific, incremental objectives.

As part of its XP approach, HP uses "pair programming," in which developers work two to a console in continual collaboration. The brainstorming that results keeps creativity and productivity high, while the collaboration sharpens coding practices and catches bugs before they proliferate downstream throughout a project.

The result is better, tighter, higher-quality code.

"I'd sit with another engineer in a pairprogramming team and they would do
something in IDEA that I didn't know was
possible. I'd stop them to ask 'how'd you
do that?' We all learned the ins and outs
of IDEA just by sitting together and seeing
what other people found out they could do."

—Brian Robinson, Senior Software Designer, HP Web Services Management Organization

Near constant testing, revision and redesign require continual refactoring, which creates a problem for traditional tools.

Refactoring is a highly detailed process, taking fine judgment all along the way. On large projects, simple, traditional tools like editors and unintelligent IDEs create unnecessary work as mistakes creep in and builds break. It becomes such a problem for many organizations that budget and time constraints discourage refactoring. The code suffers and maintenance costs climb drastically.

Faster, Better Development

The demands of refactoring make it no surprise that IntelliJ IDEA's powerful refactoring features created the initial, most powerful impression among HP developers. Senior software designer Brian Robinson notes, "I personally found two things most useful right away—'extract method' and 'replace temp with query.' I find I use those two a lot, particularly 'extract method,' which helps keep the code clean and maintainable."

The ease of navigating code, even old code, inside IntelliJ IDEA has also saved many hours, says Robinson. "IDEA is the best tool to use to learn about code that you didn't write personally. It's easy to move through classes."

As he continued to use IntelliJ IDEA he quickly realized its builtin intelligence was making it a snap "to do things that are very common when you program, things that you normally have to take time to watch carefully," he says. "It lets you work faster."

Faster, Better, Higher ROI

At HP, the faster, tighter development that attracted its developers to IntelliJ IDEA has also generated a very attractive return on the investment. Software projects are now completed faster, with fewer bugs and much lower maintenance. Compared to other IDEs, the low initial cost and continuing superior performance of IntelliJ IDEA make it the tool top developers want.

"From a business point of view, the cost is very attractive. Not free, but at a really good price point that immediately offers a very apparent ROI."

—Bruce Kratz, Director, Engineering East,

HP Web Services Management Organization

In addition to its reasonable price, says Kratz, IntelliJ IDEA enhances ROI through superior integration with other tools currently in use, such as ANT, CVS and JUnit.

"The developers are not bouncing out of their development environment every few minutes to go to another tool," he explains. "They're more efficient, and today more than ever, efficiency is very important."

The Bottom Line for Customers: A Better Product

IntelliJ IDEA's shortened development time and increased developer convenience directly benefit HP, but also benefit HP's customers, says Kratz. "We're developing enterprise-level software for financial institutions, telecoms, and other large customers who spend anywhere from hundreds of thousands to millions of dollars on our products. Fault tolerance, high scalability and nonstop operations are critical and our code has to be top quality."

The bottom line? Says Kratz: "IDEA allows us to produce a better product, faster and more efficiently."

Contact:

To see the exciting products developed by the HP OpenView Web Services Management team, visit http://www.openview.hp.com/. Learn more about JetBrains IntelliJ IDEA 3.0 and download your free, fully functional version at http://www.intellij.com/idea.



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