

ACCESS Reduces Software Defect Detection Time



“Prevent was easy to install, and made an immediate impact on our important development projects. With a false positive rate under 10%, Coverity Prevent has the most accurate results of any static analysis tool we’ve seen.”

Shinichi Tsunashima
Director, Development Support Group, ACCESS



ACCESS Challenge

ACCESS is a leading provider of mobile phone technology, so its software developers are responsible for delivering a wide array of applications according to strict timelines. New handset models require development of tailored software, and with new models being released on a frequent schedule, the development process needs to be controlled so that all new features are successfully implemented by their delivery dates. However, because technical specifications can sometimes adjust at the last minute, developers at ACCESS are often required to make adjustments in short timelines, which can test even the best manual testing processes.

To ensure continued, high-quality embedded software development at ACCESS, an internal quality improvement project team was created to streamline development processes. To accelerate the productivity of its development teams, ACCESS looked to find new ways to automate quality software development processes. Because ACCESS supports multiple, large-scale development projects with short turnaround times, the company needed a solution that could be seamlessly deployed to support different projects without affecting the pace of development.

Solution

After reviewing a number of technologies, ACCESS elected to leverage static analysis to provide its development teams with the ability to identify potential quality and security defects prior to run-time. By identifying defects early in the software development lifecycle, ACCESS anticipated generating significant cost and time savings through shortened testing cycles and reduced developer time. When the company sought to find an effective solution, it conducted a competitive review of seven different vendors. At the end of this evaluation, ACCESS selected Coverity Prevent.

ACCESS was able to deploy Coverity Prevent quickly after only 1.5 days of training. Software developers began deriving value from analysis results to support the company's NetFront™ Browser development project. Based on this early success, ACCESS has relied on the use of Coverity Prevent, with development teams running Prevent to help them accelerate software development cycles.

Industry: Mobile and Beyond-PC software

Business Challenge: With research and engineering centers throughout the world and a progressive company culture that emphasizes and nurtures innovation and creativity, ACCESS delivers unique solutions that bring value to its customers and partners. Working to deliver multiple, sophisticated embedded mobile applications simultaneously, ACCESS wanted to further accelerate development efforts through the early identification of potential defects.

Results: ACCESS installed Coverity Prevent in less than two days and immediately found value in the ability of the product to find and manage the elimination of potential defects. Development teams responsible for the NetFront™ Mobile Client Suite, a comprehensive client software suite for mobile devices, and NetFront an advanced, full-Internet browser, recognized as one of the leading browsers in the world, reduced the time to identify to 1/5 of the time previously required.

Details

Coverity Prevent successfully delivered analysis results with a false positive rate under 10%, a significant improvement over the company's previous static analysis tool. Prevent's low false positive rate helped ACCESS developers save time when reviewing analysis results because of the high density of real defects.

"Coverity Prevent's reporting system is very easy to use, it automatically identifies defects in our code bases, allows us to prioritize them." Akira Kawase, Assistant Manager, Development Infrastructure Section, Development Support Group

Because of this low false positive rate, ACCESS estimates that developers now cut defect detection time to 1/5 compared to before. This has allowed development teams to accelerate overall development. An additional benefit ACCESS has realized by using Coverity Prevent has been an overall improvement in development processes based on nightly analysis runs.

Conclusion

At ACCESS, developers use Prevent to ensure the quality and security of their code. Defects are found at an early stage of development by running the analysis during nightly builds. Due to the low false positive rate, the time to detect defects is 1/5 of what it was, and the whole development process has been streamlined by Prevent. A summary of results includes:

- Implemented Coverity Prevent, which delivered industry best false positive rate of less than 10%
- Reduced time required for developers to identify software defects to 1/5

"Compared to other similar tools, Prevent's false positive rate is particularly low. Even adding manpower and product purchase costs, we can expect a good return on investment with Prevent. Based on the value Coverity Prevent has already delivered to development teams, we are considering Prevent for use in upcoming development projects to guarantee continued code quality"

Akira Kawase
Assistant Manager, Development Infrastructure Section
Development Support Group

Free Trial

Request a free Coverity trial and see first hand how to rapidly detect and remediate serious defects and vulnerabilities. No changes to your code are necessary. There are no limitations on code size, and you will receive a complimentary report detailing actionable analysis results. Register for the on-site evaluation at www.coverity.com or call us at (800) 873-8193.

About ACCESS

ACCESS CO., LTD. is a global company providing leading technology, software products and platforms for Web browsing, mobile phones, wireless handhelds, and other networked devices. ACCESS' product portfolio, including its NetFront™ Browser, Garnet™ OS (formerly Palm OS®) and ACCESS Linux Platform™, provides customers with solutions that enable faster time to market, flexibility and customizability. The company, headquartered in Tokyo, Japan, operates 24 subsidiaries and affiliates within Asia, Europe and the United States. ACCESS is listed on the Tokyo Stock Exchange Mother's Index under the number 4813. For more information about ACCESS, please visit <http://www.access-company.com>.

About Coverity, Inc.

Coverity (www.coverity.com), the leader in improving software quality and security, is a privately held company headquartered in San Francisco. Coverity's groundbreaking technology enables developers to control complexity in the development process by automatically finding and helping to repair critical software defects and security vulnerabilities throughout the application lifecycle. More than 450 leading companies including ARM, Phillips, RIM, Rockwell-Collins, Samsung and UBS rely on Coverity to help them ensure the delivery of superior software. For more information about Coverity, Inc., visit http://www.coverity.com/index_jp.html.

Coverity Inc. Headquarters

185 Berry Street, Suite 2400
San Francisco, CA 94107 USA
U.S. Sales: (800) 873-8193
International Sales: +1 (415) 321-5237
sales@coverity.com
www.coverity.com
scan.coverity.com

Coverity Asia Pacific

Shinjuku Nomura Building 32F
1-26-2 Nishi-Shinjuku, Shinjuku-ku,
Tokyo 163-0532, Japan
Asia Pacific Region Managing Director
Rich Cerruto
Phone: +81-3-5322-2978
japan_sales@coverity.com
coverity.com/index_jp.html