Truly Covered.™

SmartFocus Accelerates Time to Market With Synopsys

BUSINESS BENEFITS

- **Reduce release cycles while improving quality and testing**
  The number and criticality of problems in the code were greatly reduced, enabling SmartFocus to transition to and sustain a monthly release schedule.

- **Reduce development costs**
  Synopsys enabled SmartFocus to reclaim 5% of their development budget—time which had been spent investigating false positives when using their previous tools.

- **Improve development productivity**
  Coverity and Test Advisor established automated analysis and testing coverage at SmartFocus, enabling developers to quickly make code changes without fear of accidentally breaking the code.

"We operate in a very competitive market and it is essential that our customers enjoy quality service, anywhere in the world. For this, our dedicated team of 50 experts needs strong IT solutions which they can rely on, which is why we chose the Synopsys platform."

Christophe Charlet
R&D Manager at SmartFocus

Business Overview and Challenge

SmartFocus is a growing leader in the real time interaction management marketing segment. Founded in 1999, SmartFocus built its success on SmartEmail, its web solution for managing email marketing campaigns. Over the years, including a series of acquisitions, the company has grown internationally and expanded its product portfolio.

Recently, SmartFocus launched The Message Cloud, a new Saas platform helping brands to deliver contextualized and personalized messages to customers. The French teams at SmartFocus develop and maintain this tool which handles 5 billion emails per month for over 1500 active clients.

Success in this highly competitive market requires sustaining a high level of service while delivering high quality software and quickly responding to rapidly evolving customer needs. SmartFocus recognized that their traditional semi-annual release cycle could not meet these requirements. They needed to become more agile to ensure they could deliver new features quickly while ensuring maximum quality.

As part of a strategic plan to increase agility and minimize cost while improving quality, SmartFocus started to reconsider its software development process and engaged in an evaluation of the Synopsys Software Integrity Platform. They were specifically looking for a static analysis solution that would help them efficiently manage the quality of the code they were writing, and for a testing solution that would help them quickly understand which sections of code had the greatest need for additional testing coverage.

Solution Evaluation

For several years, SmartFocus had been using a competitor's static analysis solution that provided satisfactory results but required significant effort from developers. With each analysis of their code they received a long list of issues—each of which required extensive investigation, yet ultimately many did not need to be fixed. Their code audits became extremely time- and labor-intensive while providing only marginal improvement to product quality.

In 2013, the R&D team led by Christophe Charlet launched an initiative to improve productivity and reduce development costs while minimizing the risk of uncovering defects in production. With this goal in mind, they decided to evaluate the impact of Synopsys Test Advisor and Coverity in real conditions.

Julien Charier, Integration Manager at SmartFocus, explains: "Performing a POC was an obvious step because it was the best way to verify that the solution would adapt perfectly to our internal processes and to our needs. We also wanted our team of developers to become familiar with the products to make sure they were on board".

With assistance from Synopsys professional services, SmartFocus was able to successfully evaluate Coverity and Test Advisor solutions on a real pilot project in a matter of days.

"Thanks to the very high quality of Synopsys support, as well as the amazing performance of its solutions, this approach finally paid off and the entire team immediately got involved in the project!" continues Mr. Charier.

The successful evaluation led to the full deployment of Synopsys Test Advisor and Coverity at the beginning of 2013.

Coverity Deployment and Benefits Realized

Installation was achieved within a single day and Synopsys' Professional Services ensured that the solutions were implemented and customized to integrate seamlessly with the SmartFocus environment including the company's test and development processes. The Synopsys team trained three members of Mr. Charlet's team, who became responsible for sharing this knowledge with other teams during the first few weeks. Within a matter of days, nearly a dozen projects were analyzed by Synopsys.

The Synopsys platform assists SmartFocus teams on two critical levels. First, every change in the code is validated by Code Advisor and the developer is immediately notified of any detected issues. In parallel, Test Advisor identifies and reports any lack of adequate testing according to the impact of their code changes.

"One of the major advantages of Synopsys solutions is the ability to set rules and exceptions. This allows them to be extremely accurate, and the results were visible from the first analysis. Whichever problems are identified, are real. For developers it's a real relief because it avoids wasting time to verify that each alert is not a false positive. In addition, since they can self-correct, code

quality is further improved and we have almost no critical issues to fix at production time", Christophe Charlet exclaims, delighted.

Synopsys solutions delivered increased productivity and efficiency for developers. Unlike competing technologies, Test Advisor and Code Advisor can integrate directly with the development tools of the SmartFocus team. This grants each developer real-time visibility into the anomalies within their code, including where there is a lack of unit testing. Any required change can be made quickly and autonomously during development, rather than finding them several months into the production phase which forces urgent corrections and extensive research. Test Advisor also helped developers to adopt unit testing, something which previous attempts had failed to accomplish; with Test Advisor, the benefits finally 'clicked'. The Synopsys platform enabled SmartFocus to define specific rules identifying exactly which code needs to be tested, and to automatically enforce testing coverage as part of the development workflow—making it easier to submit tested code changes and approve them instantly.

"For teams, having total control over the work done every day is a real advantage, and developers have been able to use the solution to its fullest potential. Identifying faults immediately encouraged them to be more rigorous, and today we notice a real improvement in code quality and test coverage. The Synopsys solutions have adapted to our processes, but they also motivated us to improve", concludes Mr. Charier.

Conclusion

Thanks to Synopsys and the drastic reduction in the number of critical problems in their code, SmartFocus was able to successfully move from semi-annual product releases to a monthly release cycle. This improved agility has enabled them to better adapt to customer demands and offer many more features that benefit end users.

Synopsys' solutions have found their place in the daily lives of SmartFocus teams, while effectively meeting the challenges of constantly improving the quality and reducing the development costs of The Message Cloud.