Financial Services Organization Uses CodeExcellence to Automate SAP Code Reviews and Improve Governance

Organization:

- Financial Services Company

Challenge:

- Implementation of SAP software suite.
- Review 2 million lines of code.
- Monitor development team code quality.
- Proactive risk mitigation strategy needed.

Solution:

- Deploy Hawkeye toolset with dashboards, to automate code reviews and gain detailed visibility and control over development.

Business Impact:

- Time consuming and costly manual reviews avoided.
- Greater application performance and stability.
- Granular monitoring of external developer output.
- Improved SAP application governance.

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Business Overview and Challenge:

This mid-sized financial organization was undertaking a transformation initiative involving implementing and extending SAP's banking suite, along with ERP and CRM applications. The company did not have any SAP software in their infrastructure at that time. A large number of external developers would be involved in implementing the applications.

As a best practice, the company conducts code reviews to monitor the quality of software being delivered by external development teams and ensure it is aligned with the corporate guidelines. To meet regulatory compliance requirements, the reviews are conducted by internal staff only. Unfortunately, reviewing such a massive quantity of code would require an excessively large team. Moreover, the team would only be required for a limited time.

They began by doing manual code reviews of the three systems but quickly realized it was an impossible task. According to the key Team Lead, "we just had too much code and too many systems to ever catch up doing manual reviews. We had to look at well over 2 million lines of code. To do that manually with our internal team doing it, it was just not going to work. We looked around but did not see much of a fit with other solutions."

The stakes were obviously high as the organization was concerned with large scale transactional critical systems. They simply could not afford an outage and so a proactive risk mitigation approach was necessary. The organization wanted to leverage existing resources more efficiently. Further, they did not have available resources to review all of the code to achieve the necessary level of confidence.

The Solution:

They realized they needed an automated solution to do the heavy lifting involved in the code audit, assessment and review functions. Through a referral from another colleague, the company's team connected with CodeExcellence. The Team Lead, with 15 years of SAP experience, "had not come across anything like CodeExcellence and the Hawkeye tools."

The company's Chief Architect says "rather than have developers spend 90% of their time doing serial linear code reviews, we could enable a very small team to focus on the top priority items, and to identify any exceptions from best practices and relay that back into the program."

"From an architectural governance perspective, I needed to be able to sample the build to ensure it was in tune with what we have decided as an organization. If the decisions made on the ground and the decisions made in the code were not aligned with the architecture decisions, I'd have a real problem."

CodeExcellence

CodeExcellence Success Story

> "Rather than have developers spend 90% of their time doing serial linear code reviews, we could enable a very small team to focus on the top priority items, and to identify any exceptions from best practices."

> **— Chief Architect**

> "We now have an understanding of our code quality and how it has improved and we know our risk of errors is significantly less. It's a big comfort point of view."

> **— Development Team Lead**

> "It's hard to place a value on CodeExcellence's benefits to my company. With the higher code quality we know the risk is lower and that's incredibly high value to us."

> **— Chief Architect**

> "With CodeExcellence, I am able to get a **handle on code quality on three major systems and over 2 million lines of code**. I now have the information I need to identify and take action on the biggest problems first."

> **—Team lead, Financial Services**

The organization is working with a large number of external developers. With the Hawkeye tool dashboards, they could have much greater visibility, awareness and control of their development environment. This architect also further noted that "With a program this size, we have to be able to understand it at the macro level and be able to delve into the specifics. We need to be able to dig into exceptions and have the ability to ask very specific questions."

"It is very important to us to have the facts and use them in discussions with 3rd party developers. We avoid being challenged when we can point to specific exceptions in the code. When it is time to push them on delivery, we want to ensure they are not cutting corners on quality."

The Results

From the key Team Lead's perspective, "CodeExcellence has helped us get a quick grasp of where our problem areas are so we can concentrate on the severest coding issues first - the ones which impact stability and integrity and are most critical to business operations."

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Significant time savings have been experienced through automating the code reviews. In addition, they discovered that the Hawkeye automated code reviews identified defects which would be difficult to discover manually. The company avoided a huge resourcing issue, including the expense of having to hire a large number of people to do manual reviews.

The Hawkeye toolset is helping to establish more consistent, predictable and transparent software development behaviours which contribute to application governance. The Chief Architect is pleased with having visibility into the development environment. "It's all about transparency – being able to make decisions or escalate accordingly. I can see what the environment looks like and measure how we are doing. I can make sure all levels of design are aligned. It's very important to have a tool which helps us maintain governance, to do so quickly and to advise on improvements or challenges."

"I like the dashboard metrics indicating the exceptions and the trends of those. I want to see those trend lines going down." He saves a significant amount of time in preparing reports for senior executives by relying on Hawkeye's integrated dashboards. In the past, gathering data was very time consuming and not an activity that could be undertaken frequently.

Over time the company is looking forward to seeing IT support and maintenance costs drift lower, with fewer issues and steady gains in developer performance.

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The Conclusion

With CodeExcellence and the Hawkeye toolset, this financial organization has gained the visibility and granular control necessary to ensure teams are developing quality code, so that they can feel confident the risks are reduced. Information is available at their fingertips, to respond quickly, to support decision-making, and to identify and implement improvements in the development environment. It now has the foundation for improved application governance, which will support future transformation initiatives and SAP implementations.

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