



Industry:
Manufacturing

Siemens Accelerates Innovation and Developer Experience with JFrog and GitHub Integration



DevOps Modernization



Toolchain Consolidation



AI-Driven Developer
Productivity

50K

Developers

300,000+

Employees

€75.9B

Revenue



The combination of JFrog as our binary management system and GitHub Actions in our CI/CD pipelines has proven to be a highly effective solution for software development

— Khosro Rahbar, Director IT Application Lifecycle Management, Siemens

Overview

For Siemens, one of the world's largest industrial manufacturing companies, software development is at the heart of innovation. With many thousands of developers building embedded software for industrial PCs, PLCs, and process automation products, managing the complexity of its development toolchain became a strategic priority.

Challenges

Previously, Siemens' development teams were facing a range of challenges:

- ✔ Binaries were stored in databases, creating massive bottlenecks and scalability issues.
- ✔ Tool sprawl introduced inefficiencies and compliance risks, particularly with security and package management.
- ✔ Development environments were fragmented across on-premise, multi-cloud, and hybrid deployments.
- ✔ Migration paths from legacy systems like Azure DevOps Server were unclear and tedious.
- ✔ Developers spent too much time managing tooling rather than writing code.



Developers had adopted tools that were not yet part of the standardized IT landscape. Our role was to enable their continued use by integrating them securely and ensuring compliance.

Solution

A Unified DevOps Experience with GitHub + JFrog

Siemens adopted a strategic integration of GitHub Enterprise Cloud (hosted on Azure) and the JFrog Platform (hosted on AWS) to establish a modern, scalable, and secure software supply chain. This joint platform allowed Siemens to bring together:

- ✔ GitHub as the system of record for source code management and security, and CI/CD pipelines.
- ✔ JFrog as the system of record for binary, package, and container security and management.

Key elements of the integrated solution:

- ✔ **GitHub Actions + JFrog Artifactory:** Streamlined CI/CD automation across thousands of developers, enabling fast and reliable deployments.
- ✔ **Security Integration:** JFrog Advanced Security findings are surfaced directly in GitHub's 'Code Security' tab, creating a unified, actionable security dashboard.
- ✔ **AI at Scale:** Siemens rolled out GitHub Copilot to all 25,000 developers, becoming GitHub's largest Copilot customer in Europe. JFrog's package, artifact, and security insights boosted developer productivity, while policy-based controls helped reduce open-source risk.
- ✔ **Cloud-Native Flexibility:** Supports both on-prem and multi-cloud needs, with seamless connections between platforms—even across cloud providers.



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Results

Since implementing the JFrog and GitHub integration, Siemens has achieved tangible improvements across its software development lifecycle:

Faster, Smarter Developer Workflows

- ✔ Developers now operate in a single-pane-of-glass environment, reducing context switching and manual intervention.
- ✔ With Copilot, developers spend more time coding and less time on repetitive tasks.
- ✔ Reusable pipeline components through GitHub Actions improved speed and standardization.

Enhanced Security & Compliance

- ✔ Integrated security visibility between GitHub and JFrog improved trust and compliance across toolchains.
- ✔ Siemens is exploring full SBOM lifecycle management to remove manual steps and strengthen audit trails.

AI-Driven Efficiency

- ✔ GitHub Copilot combined with JFrog Curation ensures developers use only policy-approved open-source packages, further reducing cognitive load and risk.
- ✔ Siemens plans to leverage agentic workflows to drive automation in onboarding, governance, and compliance.



We want our developers focused on creativity, not administration. With GitHub and JFrog working seamlessly together, we're reducing complexity and unlocking developer happiness – ultimately making them more productive as a result.

JFrog + GitHub: Better Together for Modern Software Supply Chains

As Siemens continues its digital transformation journey, the partnership between GitHub and JFrog has become a cornerstone of its developer strategy. The unified platform enables Siemens to:

- ✔ Migrate away from legacy systems at their own pace.
- ✔ Prepare for an AI-native future where agentic tools will automatically write, validate, and deploy code.
- ✔ Maintain trust and traceability across a growing and increasingly complex codebase.



It's going to be even more crucial in this agentic AI world that we have the single pane of glass where we can have that traceability – from source code all the way to the cloud.

— Thomas Dohmke, CEO, GitHub

For Siemens, the integration of GitHub and JFrog isn't just about tools; it's about transforming how software is built, secured, and scaled across a global enterprise.

Together, these platforms provide the automation, security, and developer experience needed to thrive in the next generation of software development.

SIEMENS



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ABOUT JFROG

JFrog empowers thousands of DevOps organizations globally to build, secure, distribute, and connect any software artifact to any environment using the universal, hybrid, multi-cloud JFrog Platform.



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