

Siemens advances integrated circuit verification with new, data-driven Questa Verification IQ software

- **Questa Verification IQ helps global engineering teams collaborate in real time to accelerate the verification management process and provide real-time project visibility**
- **Seamlessly integrates with industry-leading Polarion REQUIREMENTS to deliver a platform that automatically captures all data from every engine run across the life of a project**

Siemens Digital Industries Software today introduced Questa™ Verification IQ software – a groundbreaking solution that helps logic verification teams overcome a host of challenges associated with the dramatic rise in design complexity of sophisticated, next-generation integrated circuits (ICs). Team-based, cloud-enabled, data-driven and powered by artificial intelligence (AI) technology, Questa Verification IQ helps to accelerate verification closure, streamline traceability, optimize resources and speed time-to-market.

Logic verification traditionally consumes over 70 percent of the overall IC development cycle. Achieving design closure – knowing engineers have done enough of the right kind of verification to ensure your design will work flawlessly – is an ever-increasing challenge as each new generation of IC designs introduce high-levels of complexity. According to a 2022 Wilson Research industry study, verification teams achieving first silicon success has declined from 31 percent in 2014 to just 24 percent in 2022, which represents the lowest level recorded in the past 20 years.

Engineered to help design teams achieve design closure faster, Questa Verification IQ is tightly integrated with Siemens' industry-leading Polarion™ REQUIREMENTS software to deliver a platform that automatically captures all data from every engine run across the life of a project, helping customers manage requirements, coding, testing and release management across the design and verification process. This powerful combination provides a tight digital thread optimized for functional safety compliance tasks, providing a traceable solution from requirements down to verification results and implementation.

Questa Verification IQ unifies coverage data from the formal and simulation engines within Siemens' Questa™ platform, OneSpin® software, Symphony™ platform for analog and mixed-signal simulation, as well as Siemens' Veloce™ hardware for emulation and prototyping. The machine learning functionality in Questa Verification IQ then analyzes the data to predict patterns and holes, identify root causes, and prescribe solutions to potential issues; thereby helping to improve efficiency and giving teams the information needed to signoff with confidence.

“Companies across the globe on the cutting edge of chip design and verification are leveraging big data to spark innovation, streamline operations and boost efficiencies,” said Abhi Kolpekwar, vice president and general manager of Design Verification Technology for Siemens EDA. “With the launch of Questa Verification IQ, Siemens is transforming IC verification with a state-of-the-art, data-driven verification solution that can speed and simplify the verification process using analytics, collaboration and traceability – especially when married to Siemens' Polarion REQUIREMENTS software.”

Questa Verification IQ is implemented in a web-based application framework, providing scalable verification management with minimal install cost, while achieving device and OS independence. Supporting public, private and hybrid cloud configurations with native collaboration and centralized data access, Questa Verification IQ helps global engineering teams collaborate in real time to accelerate the verification management process and provide real-time project visibility. Questa Verification IQ is also fully integrated with popular Continuous Integration (CI) tools such as Jenkins to automate workflows.

Industry leaders on Questa Verification IQ

“The rapid pace of innovation today means that time-to-market is more critical than ever for us to meet the growing demand for computing power,” said Tran Nguyen, senior director of Design Services for Arm. “The Questa Verification IQ solution from Siemens allows for greater collaboration across teams and geographies during the verification process, and enables analytical navigation to improve productivity, significantly reducing our closure times.”

“Nordic Semiconductor specializes in wireless communication technology that powers the IoT. Knowing the verification status of the design throughout the development cycle is critical to planning, execution, and the final quality of our products,” said Christoffer Amlo verification team lead for Nordic Semiconductor. “As an early adopter, Questa Verification IQ provides us with a central portal with high level trending. The live status automated by the tool replaces the manual effort of gathering our regression information. And for investigating uncomplete verification work, Questa Verification IQ provides an efficient collaborative workflow for coverage closure.”

Siemens' Questa Verification IQ is available now. For more information, please visit <https://eda.sw.siemens.com/en-US/ic/questa/simulation/verification-iq/>

Siemens Digital Industries Software helps organizations of all sizes digitally transform using software, hardware and services from the Siemens Xcelerator business platform. Siemens' software and the comprehensive digital twin enable companies to optimize their design, engineering and manufacturing processes to turn today's ideas into the sustainable products of the future. From chips to entire systems, from product to process, across all industries, [Siemens Digital Industries Software](#) is where today meets tomorrow.

Contact for journalists

Siemens Digital Industries Software PR Team

Email: press.software.sisw@siemens.com

Siemens Digital Industries (DI) is an innovation leader in automation and digitalization. Closely collaborating with partners and customers, DI drives the digital transformation in the process and discrete industries. With its Digital Enterprise portfolio, DI provides companies of all sizes with an end-to-end set of products, solutions and services to integrate and digitalize the entire value chain. Optimized for the specific needs of each industry, DI's unique portfolio supports customers to achieve greater productivity and flexibility. DI is constantly adding innovations to its portfolio to integrate cutting-edge future technologies. Siemens Digital Industries has its global headquarters in Nuremberg, Germany, and has around 76,000 employees internationally.

Siemens AG (Berlin and Munich) is a technology company focused on industry, infrastructure, transport, and healthcare. From more resource-efficient factories, resilient supply chains, and smarter buildings and grids, to cleaner and more comfortable transportation as well as advanced healthcare, the company creates technology with purpose adding real value for customers. By combining the real and the digital worlds, Siemens empowers its customers to transform their industries and markets, helping them to transform the everyday for billions of people. Siemens also owns a majority stake in the publicly listed company Siemens Healthineers, a globally leading medical technology provider shaping the future of healthcare. In addition, Siemens holds a minority stake in Siemens Energy, a global leader in the transmission and generation of electrical power.

In fiscal 2022, which ended on September 30, 2022, the Siemens Group generated revenue of €72.0 billion and net income of €4.4 billion. As of September 30, 2022, the company had around 311,000 employees worldwide. Further information is available on the Internet at www.siemens.com.

Note: A list of relevant Siemens trademarks can be found [here](#). Other trademarks belong to their respective owners.