

GENESIS 11: Empowering the Industry of the Future

Redefining the future of industrial automation, Mitsubishi Electric introduces GENESIS 11, a next-generation platform that delivers enhanced productivity, simplified integration, and high return on investment for manufacturing facilities. Christian Nomine, Strategic Product Manager Visualization & Analytics at Mitsubishi Electric Europe B.V., shared insights on the innovations and key application areas of the new platform.

Nomine highlights three major advancements introduced with GENESIS 11: “The new version delivers three tangible improvements—unlimited tag licensing that eliminates scaling costs, an integrated industrial historian that removes the need for third-party data recorders, and web-based 3D visualization capabilities. These allow manufacturers to expand their systems without additional licensing fees, streamline their data infrastructure, and address issues faster through remote visibility.”

A New Era of Unlimited Licensing

One of the most significant innovations of GENESIS 11 is its unlimited licensing model, which fundamentally transforms how automation projects are designed. “Eliminating tag and client connection limits means companies no longer need to account for extra license fees as their systems grow,” **Nomine** explains. “This empowers them to focus on innovation and development. The platform therefore becomes more accessible and cost-efficient—particularly for companies taking their first steps in digital transformation. In the long run, it makes a substantial difference in project planning and cost management.”

Built on the .NET 8 architecture, GENESIS 11 seamlessly integrates with Mitsubishi Electric’s automation products while supporting third-party systems via industry-standard protocols such as OPC UA and MQTT. “We have greatly simplified the integration process,” says **Nomine**. “Engineers can now connect different systems with minimal configuration. Thanks to built-in cybersecurity and redundancy features, these integrations remain both secure and efficient.”

David Bean, one of Mitsubishi Electric’s specialists based in the UK, emphasizes the importance of these features, particularly in sectors such as transportation and water infrastructure. **Nomine** adds: “As in the UK, compliance with the NIS2 Directive has become mandatory for critical infrastructures across the EU. The platform’s advanced security capabilities help our customers meet these regulatory requirements.”

From Weeks to Days: Accelerating Deployment

In today’s rapidly changing manufacturing landscape, time-to-market is more crucial than ever. “We focused on simplifying project development and commissioning,” **Nomine** notes. “With automated configuration tools, pre-built templates, and no-code deployment options, we can reduce implementation time from weeks to days—enabling manufacturers to achieve faster return on investment.”

Advancing Sustainability Goals

GENESIS 11 provides powerful tools to help organizations improve energy efficiency and reduce their carbon footprint. Mitsubishi Electric’s real-time monitoring and business intelligence capabilities enable companies to better understand energy consumption and minimize waste. Manufacturers can take proactive measures to save energy, track and report carbon reduction progress, and when combined with solutions like EcoAdviser and predictive maintenance, achieve significant reductions in both energy use and emissions.

Turning Data into Value

With the exponential growth of production data, **Nomine** highlights that the new platform offers a major advantage in this area: “Thanks to its integrated industrial historian module, GENESIS 11 is designed to manage large volumes of data effectively. All critical data is collected within a single platform—without the need for external recorders or complex scripting. It doesn’t just store data; it makes it instantly available for decision-making.” This capability enables companies to develop predictive maintenance programs, optimize production planning, and enhance quality control processes.

Significant Impact Across Different Industries

GENESIS 11 is already demonstrating its impact across multiple industries, including wastewater treatment, data centers, and process industries. “In wastewater treatment plants, our distributed architecture supported by redundant servers ensures continuous data collection and control—vital for critical infrastructures,” **Nomine** says. “In data centers, GENESIS 11 efficiently manages numerous PLC and device connections, enabling reliable monitoring and control.” System integrators can now also utilize the cloud-based version of GENESIS to deliver comprehensive ‘Maintenance as a Service’ offerings, creating new revenue models and added value for customers through enhanced monitoring and reporting services.

Addressing Industry Challenges

According to **Nomine**, manufacturers today face two primary technical challenges, high licensing costs and cybersecurity threats. “GENESIS 11 eliminates the cost barrier with its unlimited licensing model,” he explains. “At the same time, its encrypted communication, role-based access control integrated with Microsoft Active Directory, and robust cybersecurity features protect systems against evolving threats. This enables companies—from small applications to enterprise-scale deployments—to scale freely while meeting modern cybersecurity standards.”