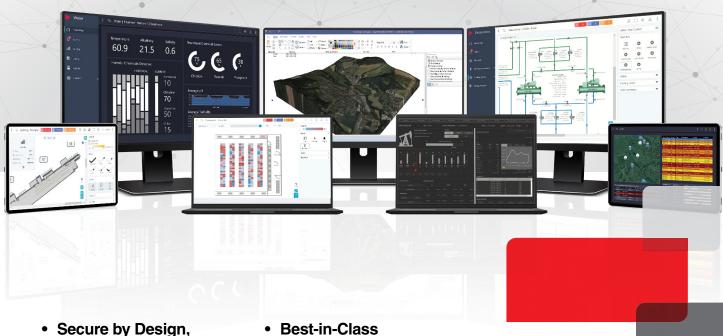


# A BOLD NEW GENERATION IN AUTOMATION PLATFORMS





- Secure by Design, Mission Critical Ready
- Universal Connectivity for IT, OT, and IoT
- Flexible and Scalable Deployment
- Integrated Industrial Historian

- Best-in-Class Visualization
- Robust Extensibility with Modern APIs and Adaptable Codebase
- Contemporary Lifecycle Management



GENESIS is an advanced digital platform used for both traditional Supervisory Control and Data Acquisition (SCADA) applications and a wide range of information-centric projects involving operational technology, industrial control systems, and building management systems.

Built for deployment flexibility, the platform enables rapid, scriptless application development and seamless scaling—from single-node setups to distributed, high-availability architectures for mission-critical operations.

GENESIS version 11, the latest release from Mitsubishi Electric Iconics Digital Solutions, delivers a set of strategic capabilities that elevate performance and usability:

- Certified design aligned with Mitsubishi Electric Iconics Digital Solutions' IEC 62443-4-1 Security Development Lifecycle Assurance (SDLA) certification
- · Optimized and accelerated installation process
- Unified redundancy capabilities for improved resilience
- Integrated platform features, including process historian, asset structures, and alarm and reporting capabilities
- Compatibility analyzer for easier lifecycle management of complex systems
   Simplified, flexible licensing model with unlimited clients and tags

## Why Choose GENESIS?

Choosing a SCADA platform is a long-term commitment—most systems remain in place for a decade or more—making the initial decision critical.

Forward-thinking organizations, operations teams, and system integrators look for platforms that meet today's demands while being able to scale for future needs. GENESIS provides that foundation, combining advanced capabilities, proven supplier stability, comprehensive connectivity, and full lifecycle support.

## CORE CAPABILITIES THAT DEFINE LEADING SCADA SOLUTIONS

GENESIS offers the capabilities that set top-tier SCADA platforms apart—delivering reliable performance today and the flexibility to adapt as your operation evolves.



## DATA-CENTRIC DESIGN & ADVANCED VISUALIZATION

An advanced SCADA platform should combine data-centric design with powerful visualization to provide a unified, consistent view of operations across diverse technologies. Core capabilities include asset modeling, normalized alarms, and standardized data collection to simplify enterprise-wide interactions; support for 3D graphics, scalable vector graphics, and HTML5 to ensure secure, high-performance visualization across environments; and built-in data virtualization through a business intelligence layer to unlock analytics capabilities that empower operators and decision-makers with deeper, real-time insight.

## INDUSTRIAL-STRENGTH HISTORIAN

Efficient data collection, storage, and retrieval require a built-in process historian optimized for time-series data—an essential capability in any modern SCADA platform. A reliable system of record from the historian enables operational insights, supports advanced analytics, and helps maintain regulatory compliance.

#### **ALARM MANAGEMENT**

To comply with ISA 18.2 and enable effective alarm strategies, platforms must offer flexible alarm configuration, alerting, and notification features. Alarm management tools should also support historical alarm data storage, retrieval, and reporting for end-to-end management.

## SCRIPTING & EXTENSIBILITY

Versatility is essential in a modern SCADA platform to adapt to evolving operational needs. Built-in scripting supports custom calculations, automation sequences, and workflows, while extensibility ensures seamless integration with unique applications, APIs, and third-party systems. Features like cloning further accelerate deployment and simplify ongoing maintenance, enabling tailored functionality and long-term scalability.

## UNIVERSAL CONNECTIVITY

A platform should connect with existing devices and data sources while adapting to future production changes, supporting industry-standard interfaces across operational technology, databases, IIoT protocols, and APIs.

# Architectural Scale & Flexibility

The GENESIS platform architecture is modular by design, providing organizations with a foundation that can evolve alongside their operational requirements.

Its open, component-based structure streamlines deployment, integration, and extension, ensuring long-term adaptability across diverse environments.



#### SYSTEM SCALE

The platform supports deployments ranging from small, single-computer systems to large, multi-server installations distributed across multiple data centers. Standardizing with GENESIS ensures consistent performance and usability at any scale. With truly unlimited client connections, organizations can expand their systems without incurring additional costs, gaining the flexibility to grow seamlessly as needs evolve. Built-in capabilities such as cloning further simplify maintenance and expansion, allowing teams to replicate configurations quickly and deploy new systems with minimal effort.

#### TIME TO VALUE

Building a custom SCADA system in-house is costly, slow, and risky, with teams facing steep integration, maintenance, and upgrade challenges. GENESIS eliminates this burden by providing a proven, readyto-deploy platform that is configurable, extensible, and continuously enhanced. Instead of investing years in development, organizations gain universal connectivity, visualization, alarm managemen, a built-in data historian, and scripting out of the box—reducing engineering effort, accelerating deployment, and delivering measurable value from day one.

### REDUNDANCY & HIGH AVAILABILITY

GENESIS includes built-in support for redundancy and failover to maintain high system availability in mission-critical environments. Load balancing further ensures a responsive user experience, even under demanding operational conditions.

## DEPLOYMENT FLEXIBILITY

Organizations can align system architectures with their OT/IT convergence strategies. GENESIS enables service distribution across segmented networks, supports cloud-based or hybrid infrastructures, and integrates securely through firewalls and DMZs.

#### MODULAR ARCHITECTURE

Platform services are deployable across multiple nodes and networks to support resiliency, scalability, and contextualized data delivery. This modular approach ensures that data collection, visualization, alarming, security, and analytics can be configured to meet diverse operational requirements.

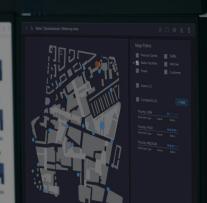
#### **GENESIS Modular Architecture**



#### **USABILITY & USER INTERFACE**

GENESIS simplifies the user experience with intuitive tools that accelerate deployment, reduce engineering effort, and support long-term maintainability. The platform is designed to empower users—from system integrators to operators—with accessible, efficient interfaces.

- **Graphic Development** A user-friendly interface with drag-and-drop design capabilities and low-code/no-code options enable rapid development of displays, dashboards, and reports with minimal programming.
- · Lifecycle Management Wizard-driven configuration tools streamline initial deployment, reduce engineering time, and support change management throughout the system lifecycle.



#### PLATFORM SECURITY

Security is foundational to the GENESIS platform, which provides comprehensive tools and capabilities to safeguard systems, data, and operations.

- Secure Implementation A secure-by-default installation includes an extensive set of granular security features and encrypted communications to protect against unauthorized access and data breaches.
- Identity and Access Control The platform supports modern authentication protocols such as SAML 2.0 and integrates with enterprise IT standards like OIDC, enabling streamlined identity management and multi-factor authentication.
- Audit Logging Built-in audit logging records security events and operator actions in a tamper-resistant format, ensuring accountability and maintaining a reliable system of record for applications in regulated industries requiring compliance with standards such as the FDA's 21 CFR Part 11.

#### **SUPPLIER COMPLIANCE & STANDARDS**

Supplier reliability is essential when selecting a long-term SCADA platform. GENESIS is backed by rigorous development practices and a mature security response framework.

- Certified Development Practices The platform is developed under independently certified quality management systems (ISO 9001) and secure software development lifecycle processes (IEC 62443 Part 4-1).
- Security Incident Response A dedicated Product Security Incident Response Team (PSIRT) provides publicly accessible channels for vulnerability reporting and ensures timely remediation and communication.



#### **GENESIS PLATFORM COMPONENT OVERVIEW**

The modular architecture of GENESIS includes a comprehensive set of components designed to support system configuration, data connectivity, visualization, analytics, and lifecycle management. The table below outlines the primary components and their roles within the platform.

| Key Component        | Description  |  |  |  |
|----------------------|--|--|--|--|
| Platform Services    | FrameWorX platform for connectivity, authentication, aliasing, and failover across GENESIS components.   |  |  |  |
| Workbench            | Central workspace for configuring assets, data sources, transactions, reports, and other business logic.   |  |  |  |
| Assets               | Hierarchical asset model compliant with ISA 95 and ISA 88. Supports physical structures (e.g., Site > Well > Pump) and virtual groupings for consistent monitoring.  |  |  |  |
| Connectivity         | Native drivers and open-standard protocols—OPC UA, Modbus, BACnet, MQTT / Sparkplug B, SNMP, web services, and Mitsubishi Electric Factory Automation (FA) Connector—plus third-party OPC servers such as TAKEBISHI DeviceXPlorer.                 |  |  |  |
| Software Integration | Utilities and APIs for linking external systems, automating processes (recipes, security, alarms), and upgrading/importing organization structures to the latest GENESIS version.  |  |  |  |
| Visualization        | GraphWorX design environment for creating 2D/3D displays, dashboards, and control screens that run in desktop or HTML5 web modes.  |  |  |  |
| Alarming             | ISA 18.2-compliant Alarm Server and Alarm Historian for real-time alarm processing, logging, and export.   |  |  |  |
| Data Historian       | High-performance time-series storage for efficient data collection, aggregation, and retrieval—enabling trending, analytics, and compliance.   |  |  |  |
| Bridging             | Graphical logic engine for configuring transactions, protocol bridging, and custom workflows via the built-in Activity Library.  |  |  |  |
| Reporting            | Automated report generation in Excel, PDF, HTML, or CSV, consolidating data from devices, OPC servers, web services, and databases.  |  |  |  |
| Notifications        | Configurable email and SMS notifications with escalation and scheduling to deliver real-time equipment status, alarms, alerts, and reports.  |  |  |  |
| MobileHMI            | Native iOS and Android applications that provide secure mobile access for monitoring, control, alarm acknowledgement, and trending.  |  |  |  |
| Analytics            | Components that transform and analyze real-time data to improve visibility, efficiency, space utilization, quality, and uptime. The built-in BI Server enhances these capabilities, delivering unmatched analytics for deeper operational insight. |  |  |  |



## Outcomes You Get with GENESIS

GENESIS empowers organizations to operate with greater intelligence, efficiency, and confidence—delivering measurable improvements in visibility, reliability, and sustainability. With the platform's key capabilities below, organizations can streamline operations and drive continuous improvement:

- · Centralize real-time visibility and control across all systems
- Establish a secure system of record for historical process and alarm data
- Streamline alarm management with unified alerting, notifications, and escalations
- Enhance asset reliability and enable proactive maintenance practices
- · Eliminate manual, paper-based data collection



## GENESIS SYSTEM SIZING & LICENSING

GENESIS version 11 introduces a flexible, node-based architecture to support a wide range of deployment requirements. Systems can scale from a single node to multi-node deployments that support distributed data collection, client access, and redundancy.

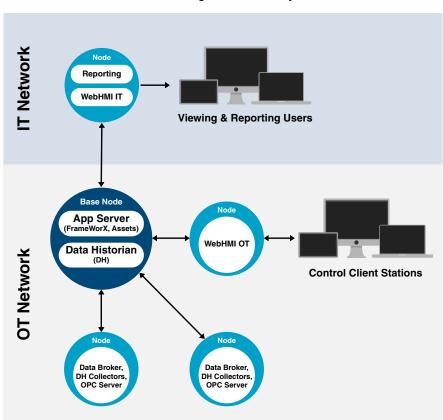
Licensing is based on the number of nodes rather than capacity counts (clients, tags, alarms, historian points), simplifying system planning and growth. This architecture enables:

- Secure, encrypted GENESIS-to-GENESIS communication
- Segmented OT and IT networks with distinct read/write or view-only access
- Load-balanced, high-availability configurations
- Deployment across firewalled environments, WANs, or hybrid cloud systems

By distributing services across nodes, organizations can build scalable, resilient systems that meet enterprise security and performance standards.

#### **GENESIS to GENESIS Nodes for Distributed Architectures**

**Enables Scaling and Resilient Systems** 



#### **GENESIS SOFTWARE SUPPORT & MAINTENANCE**

GENESIS is commercially available as a subscription and with perpetual licensing. SupportWorX is the software support and maintenance offering provided with GENESIS perpetual licenses. The Premier Plan includes a full range of technical resources to help organizations maintain and optimize their systems. Support entitlements are included with subscription licensing.

| GENESIS Version 11 Support     | Premier Plan Entitlement   |  |  |
|--------------------------------|--|--|--|
| Community Portal Access        | Knowledgebase and technical documentation  |  |  |
| Self-Paced Online Portals      | On-demand tutorials and training resources   |  |  |
| Product & License Portals      | Access to software downloads and license management  |  |  |
| Synchronized Renewals          | Coordinated contract renewals to simplify budgeting and procurement for multi-system customers |  |  |
| 24x7 Phone & Email Support     | Global "follow-the-sun" technical assistance   |  |  |
| Software Updates               | Access to maintenance releases, critical fixes, and new versions                               |  |  |
| Instructor-Led Training        | Up to five seats per contract year for instructor-led training sessions                        |  |  |
| Development System ("Sandbox") | Full set of duplicate licenses for development and testing environments                        |  |  |





"Our collaboration with Mitsubishi Electric Iconics Digital Solutions, SINTIA LAB, and StG has marked a pivotal moment in Drago Forneria Genovese's journey towards digital transformation and operational excellence. Leveraging GENESIS has not only streamlined our processes but also unlocked unprecedented levels of productivity and efficiency across our production lines. This strategic initiative has empowered us to uphold our commitment to craftsmanship while embracing the innovations of Industry 4.0. It's a testament to how traditional businesses can evolve without losing their essence, ensuring that our beloved bakery products with authentic taste and quality continue to delight customers."

Martina Drago, Plant Innovation Manager

"Our new GENESIS SCADA system is an immense facelift. We have great visibility into all our sites. Plus, since it is much easier to navigate, our operators have gained new confidence running our technical systems. This upgrade proves to us that having Idnadartaekni implementing GENESIS gives the best possible outcome, and we are ready to expand the system further in years to come."

Amundinus Orn Ofjord, Blue Lagoon Director of Facilities

"The GENESIS solution deployed at our plant helped us with continuous monitoring of gas quality to maintain the optimal efficiency of our gas turbines. The software was straightforward and user-friendly for a simple application like ours. We have been using it for more than a decade now without any performance issues or downtime. We look forward to scaling this solution for other applications in the future, as needed."

Mr. Mohammed Asif, Maintenance Coordinator ENGIE-STOMO (Operations and Maintenance for SMN Power Holding)

"We collect data regularly through GENESIS. And so, we get data from every line, from every product, and from every shift, and that data is accumulated in the database, and a report comes out every day for us to be able to determine how each one of those lines is running."

"The GENESIS product suite has allowed us to develop a system that our operators have confidence in. It is highly scalable and provides seamless integration of new applications into our existing control system."

Randy Stewart, Automation and Controls Supervisor Cucamonga Valley Water District

"The business model and software tools of Mitsubishi Electric lconics Digital Solutions have allowed us to improve quality and efficiency on an ongoing basis. They are a key contributor to our continuing manufacturing improvements and success."

Doug Howell, Director, Polyurethanes Daubert Chemical Company

"The visualization capabilities provided by the GENESIS software allow us as the operator/ landlord of the property to access all relevant building parameters at any time and thus improve the satisfaction of our tenants and users."

Moritz Weeber, Managing Director Geschwister Langer GmbH & Co KG Immobilienbestandshalter

Dan Bracket, Vice President of Operations, Catania Oils

#### ABOUT MITSUBISHI ELECTRIC ICONICS DIGITAL SOLUTIONS

Mitsubishi Electric Iconics Digital Solutions, headquartered in Foxborough, Massachusetts, is a global leader in industrial automation, smart and sustainable buildings, and digitalization software. Our advanced HMI, SCADA, and Smart Building solutions enable businesses to visualize, monitor, and optimize their most critical assets and spaces. With installations in over 100 countries and adoption by more than 70% of Global 500 companies, we drive operational efficiency and continuous improvement across industrial manufacturing, infrastructure, and built environment sectors. Backed by cuttingedge technology and deep industry expertise, we deliver flexible, scalable, and high-performance software solutions. As a testament to our excellence, Mitsubishi Electric Iconics Digital Solutions has been recognized as a seven-time winner of the Microsoft Partner of the Year award.

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