SIEMENS

REDEFINING BUILDING AUTOMATION

Open-platform Desigo Optic software simplifies visualization and control

Optimize efficiency and comfort with Desigo Optic, a completely open building management system that makes integration easier and faster.

usa.siemens.com/desigo-optic

Desigo Optic
uniquely reimagines openness

As one of the first completely open solutions, Desigo Optic software is redefining what building automation can do.

With open architecture and protocols, Desigo Optic reduces complexity and automates data handling. It improves data visibility to deliver more actionable intelligence for better informed decision-making. It boosts profitability by reducing operating expenses, extending asset life, increasing up-time and streamlining workflows by 33%.

Desigo Optic makes buildings smarter and management more intuitive. Setup is quick, and integration with existing building management systems and new technologies is seamless and easy. Performance reporting, such as energy consumption, is simple thanks to powerful navigation menus and tools. Secure remote access means critical data can be managed from any PC or smart device on the network.

Technically Open
- Supports all major protocol standards
- Leverages Haystack open-source tagging

Commercially Open
- Built on open FIN Framework technology and available through multiple vendors

Open Web
- Uses open-source libraries and browsers

Setting new standards in building management software

✔ **Redefining openness**

✔ **Faster workflow**

✔ **Best-in-class user interface**

✔ **Data interoperability**

✔ **Dashboards with depth**

✔ **Improved scalability**

✔ **Secure remote access**

Automatic data tagging **helps eliminate complexity**

Managing today's building systems is increasingly complex due to the amount of data generated by devices connected to the Internet of Things (IoT). By leveraging the latest standards in programming, Desigo Optic simplifies data handling and makes building management easy.

Before data can be turned into useful knowledge, it needs structure. Previously, systems integrators and data deployment specialists had to manually apply "tags" to the data to give it the necessary structure – a timely and costly process that lacks consistent naming conventions. Now, Desigo Optic automatically applies standardized tags using the built-in Haystack 4 semantic tagging system.

Haystack tagging also provides a standardized structure that makes the data interoperable to provide real-time insight into system operations. Haystack 4 is embedded in FIN 5, the openly distributed framework on which Desigo Optic

is built. FIN 5 was designed to be open so it can support all major protocol standards used in buildings today, including BACnet, Modbus, KNX, SNMP and OPC.

Haystack also seamlessly integrates with the Niagara framework and supports MQTT and REST protocols to provide visibility of real-time data in one place. Together, FIN 5 and Haystack 4 make Desigo Optic a truly open system that helps eliminate building management complexity.

A smarter way to work

Semantic tagging provides significant advantages over manual tagging.

✔ **Standard names**

✔ **Consistent data structure**

✔ **Recognition of data**

✔ **Automated process**

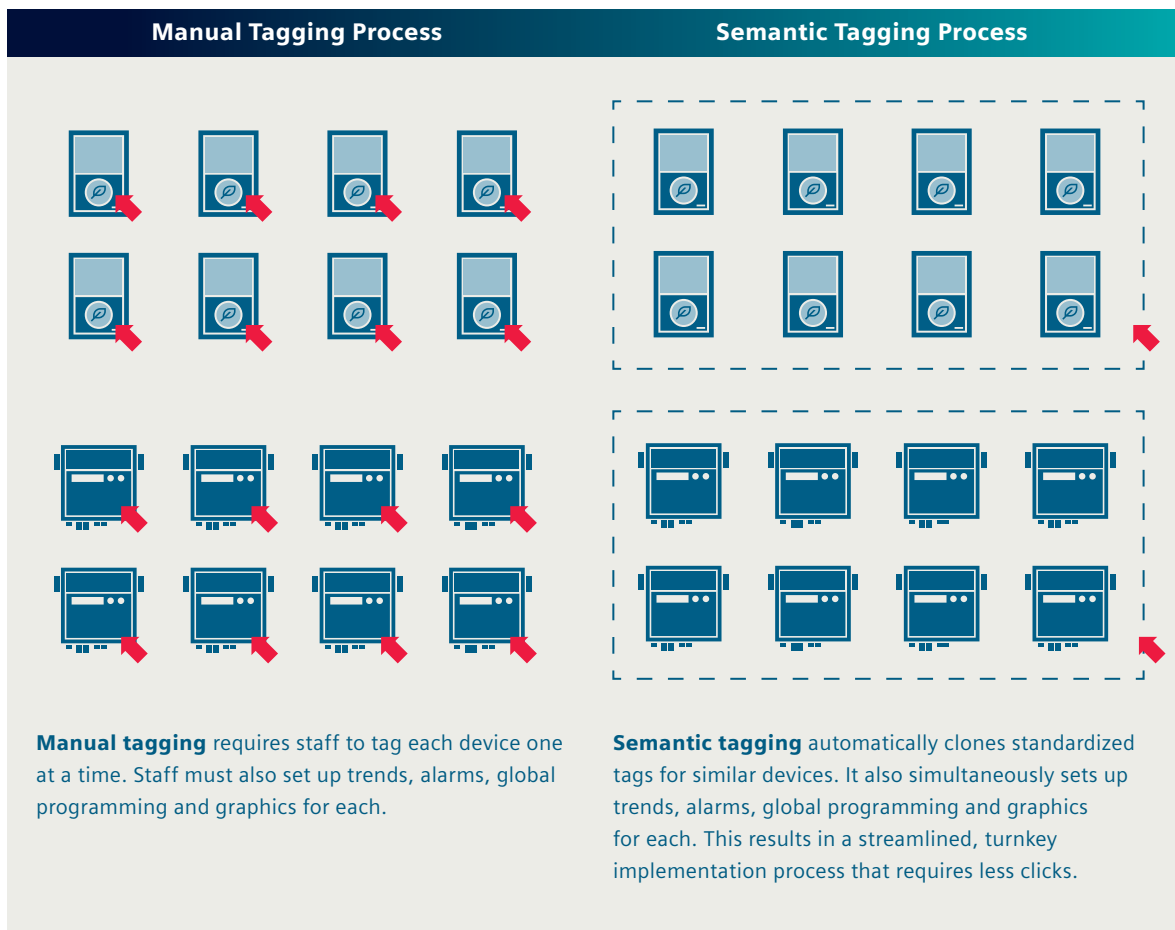✔ **Lower labor costs**

✔ **Faster integration**

Semantic tagging
improves engineering workflow by 33%

Desigo Optic's full implementation of Haystack 4 semantic tagging significantly improves workflow by reducing labor inefficiencies.

Manual tagging requires using the same multi-step process for each piece of equipment. The manual process is iterative, time-consuming and inconsistent, increasing project costs.

Haystack semantic tagging, on the other hand, uses cloning to distribute standardized tags across similar devices. It's efficient, consistent and has a less repetitive engineering workflow that saves time and money.

As a result, Haystack semantic tagging increases integration speed by 33%.

Manual Tagging Process	Semantic Tagging Process

Manual tagging requires staff to tag each device one at a time. Staff must also set up trends, alarms, global programming and graphics for each.

Semantic tagging automatically clones standardized tags for similar devices. It also simultaneously sets up trends, alarms, global programming and graphics for each. This results in a streamlined, turnkey implementation process that requires less clicks.

# Desigo Optic **delivers valuable data-driven insights**

Desigo Optic employs unique dashboards and data visualization tools to deliver powerful insights to optimize building operations, improve efficiency and meet occupant needs.

The dashboards provide data-driven intelligence about performance, operations, maintenance, health, comfort and safety that leads to better informed decisions.

For example, Desigo Optic standardizes workflows to automatically generate graphics and navigation. It creates customized templates that help achieve consistent engineering for equipment, floors and

devices. It harnesses fault detection and analysis to deliver smarter data for predictive maintenance modeling. It also pinpoints ways to simplify data management, streamline workflow, improve service and maintenance, and reduce operational expense.

Because all stakeholders have access to the data wherever and whenever they need it, communication is streamlined across the board. Building owners and facility managers, system integrators, and service and maintenance staff alike benefit from real-time data availability.
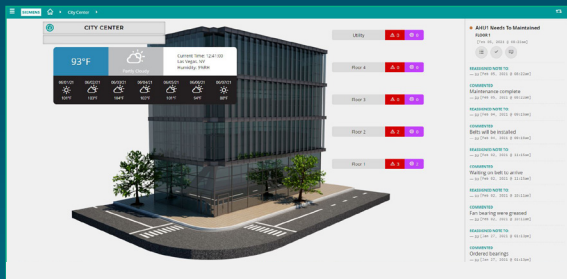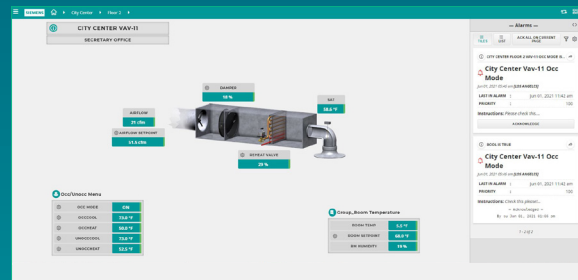

Site Level. Provides overview of site, weather data, points in alarm and points in override.
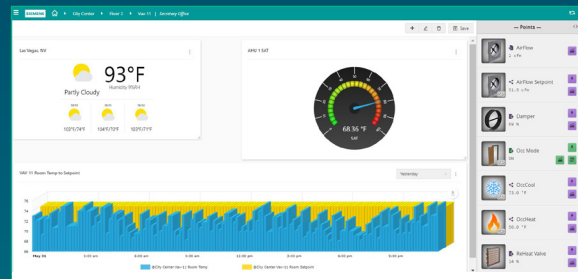
Dashboard Builder. Enables customized dashboards to meet user's specific needs.

Floor Plan. Summarizes current temperatures in all rooms across a floor and whether they meet target temperatures.

Equipment. Delivers critical data needed to analyze equipment performance, command and control the unit, and verify operational needs are met.

Scalable and more secure
for one to many buildings

Capacity as you need it

Deploy Desigo Optic by implementing the software itself or installing the CFG3.F200 controller that's embedded with the software. The software supports up to 100,000 data points and the embedded controller up to 5,000 points.

The embedded controller is sized for most commercial buildings, schools and institutional spaces. This lightweight deployment provides full, cloud-based building management with minimum infrastructure. As needs change or buildings are added, Desigo Optic can scale easily, one controller at a time.

Secure remote access

FIN Edge2Cloud provides a secure connection and eliminates the need for a virtual private network (VPN). The FIN Framework supervisory and control architecture is secure by design and has passed multiple hacker penetration tests. It uses state-of-the-art authentication, encrypts key data, complies with IEC62443 and SAL2, and applies smart cyber security hardening guidelines.
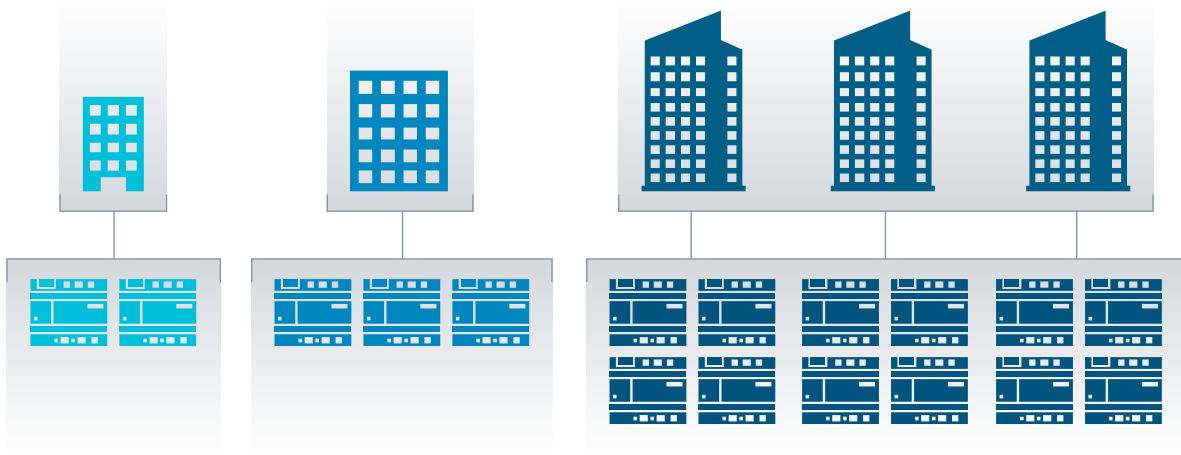

The embedded CFG3.F200 controller offers expanded capacity of up to 5,000 data points. FIN Edge2Cloud delivers security.
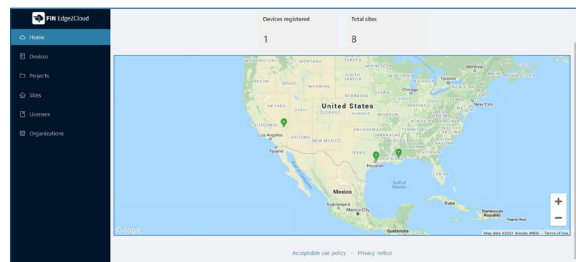
Edge2Cloud provides secure, encrypted remote access to data from any browser, anywhere in the world.

Desigo Optic scales easily to add more points and more buildings

Scale Desigo Optic from one site to hundreds of sites by installing additional CFG3.F200 controllers with a full array of features, high availability and access from any browser, PC or mobile device.

Easy-to-use platform **enhances user experience**

Desigo Optic provides simple, touch-friendly navigation and features enhanced 3-D graphics for a best-in-class user experience. It offers a full package of easy-to-use tools that provides a simplified approach, accessibility and functionality.

Fully web accessible

Using HTML5 and a native mobile-first design approach that is web-responsive, Desigo Optic can run on any device. All apps and tools are fully web accessible. Desigo Optic is engineered and commissioned using openly available web browsers.

Graphics in minutes

Its Dashboard Builder tool has multiple tree views and drag and drop selections. It's easy to use and graphics can be created in just a few clicks. Turnkey trend analysis reports provide the input needed to make any necessary adjustments that keep building operations on track.

Single front end

The powerful Desigo Optic software meets today's needs for openness, data normalization, consistency and ease of use. It enables integrators to work with multiple system protocols from a single front end as they make their buildings more efficient. It's sustainable, scalable and provides data on the go.

Quick, easy integration

Desigo Optic delivers the speed and ease of integration that matters now and in the future. The platform is particularly well suited for office buildings, education, government, hospitality, retail and healthcare.
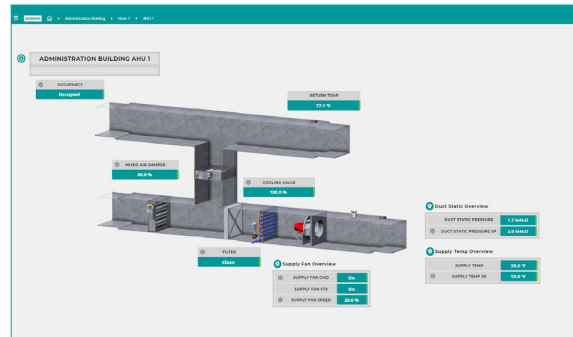
Air-handling unit dashboards deliver real-time data about equipment status and temperatures.

Electrical meter dashboards visualize real-time data about demand, consumption and current output.
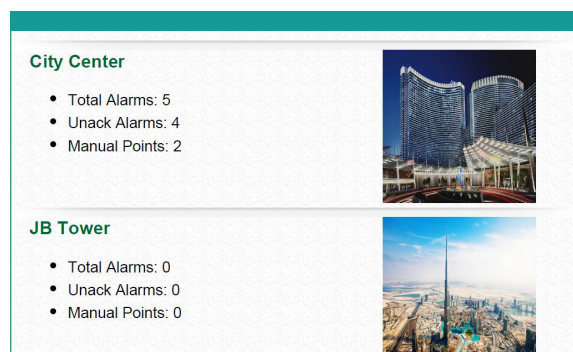
Simplified reporting of total and unacknowledged alarms and manual points indicate overall building health.

Information in this publication is based on
current specifications.The company reserves
the right to make changes in specifications and
models as design improvements are introduced.