Remote Operations SCADA Software

EcoStruxure™ Geo SCADA Expert

se.com

Life Is On | Schneider Electric

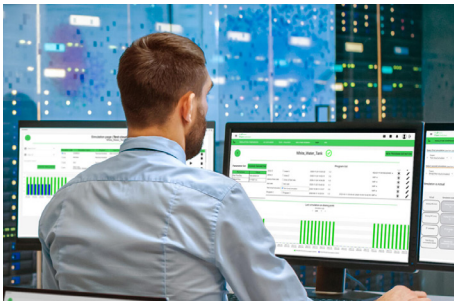
EcoStruxure Geo SCADA Expert

An open, flexible and scalable software solution for remote operations SCADA applications, designed to transform field data into business-relevant information and optimize the operation and management of remote assets across critical infrastructures.

Using high performance graphics, geographical displays, historian analytics and intelligent alarms, EcoStruxure Geo SCADA Expert delivers real-time data intelligence, transforming key process insight into information that is instrumental in optimizing operational efficiency and managing geographically-dispersed assets.

Total cost of ownership is a critical factor in measuring the value of a SCADA system, being a function of up-front and ongoing costs associated with product configuration, operation and maintenance.

Geo SCADA Expert helps to reduce costs across the entire system with optimized SCADA functionality, easy to modify and replicate object templates and remote access via large mobile devices.

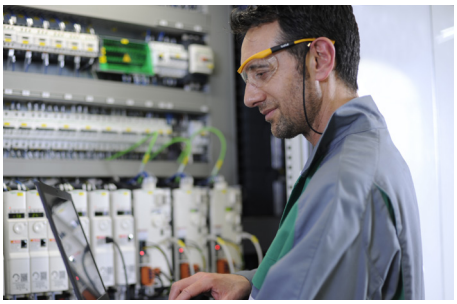


Scalable and Flexible Architectures

- Millions of monitored signals efficiently managed with the smallest number of servers
- Distributed, Redundant, Resilient, Hierarchical systems
- On premises, in-cloud, virtual and hybrid

Configuration – The 'Digital Twin'

- Use powerful templates to keep on-site configuration under control
- Allow controlled site variations where needed, and track change down to field level



True Integration and Protocol Support 'To the Max'

- Exchange configuration with remote devices to reduce site visits and keep site behaviour current and consistent
- Update firmware and control schemes to SCADAPack devices
- Manage multiple redundant communications paths and control bandwidth use with intelligent protocols

Data, Control and Visualization for Dispersed Infrastucture

Reduce Cost of Ownership

Scalability is at the core of the EcoStruxure Geo SCADA Expert's ability to help protect SCADA investments and ensure effective lifecycle management across wide-area network projects – from small systems to large enterprise environments. Geo SCADA Expert allows databases to grow or be split across instances, giving you control over the architecture.

With a suite of integrated tools, Geo SCADA Expert easily adapts to a range of architectural requirements, with features that include:

- Native support for 64-bit platform
- 250 to 1,500,000+ points
- Full, Web and Mobile clients
- Lone server to Triple Redundancy
- Online Configuration Changes

Geo SCADA Expert's scalable and flexible design helps to accommodate customers' expansion plans, increase capacity as needs grow and mitigate the need for system downtime.

Reliability is enhanced by addressing challenges specific to geographically-dispersed assets and resources, communicating over disparate media.

The continuous operation of critical infrastructure and secure management of remote assets is enhanced with:

- Geographic server isolation, synchronization between remote locations
- Up to 3 redundant servers and 3 load-sharing application servers
- Dual LAN/WAN communications paths

Extend Operational Value

Open for Business platform integrates and communicates with external business and IT systems, helping to extend operational value and transform remote asset data into valuable business information. Built around industry standard interfaces and protocols, Geo SCADA Expert is one of the leading open systems and one that can easily integrate third-party systems, with connectivity capabilities to:

- SQL Interface (ODBC, OLE-DB)
- Web Services - SOAP/XML
- .NET Programming
- OPC DA, HDA, AE and UA data

With seamless access to reports and external data sources, process data is consolidated and transformed into business-critical information saving valuable time and money and extending operational value.

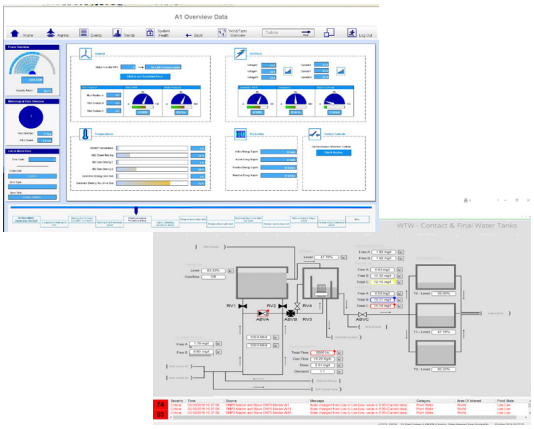
What's New!

Geo SCADA Expert 2023 builds on previous Geo SCADA and ClearSCADA releases to offer new major features:

We have continued to update and extend the SCADAPack x70 and Realflo communications drivers, including support for Realflo 7.11 and SCADAPack 47Xi.

We have added an OPC UA data server, and a driver for MQTT Text and JSON communications.

Native high performance historian feed to AVEVA PI and AVEVA Data Hub.



Trusted Operation for Critical Infrastructure

Built for Security delivers superior system-wide security with trusted solutions that address challenges specific to the management of remote assets and infrastructure.

A holistic view of operations and security down to the object level, helps optimize operational efficiencies throughout the network. Geo SCADA Expert minimizes the effects of potential equipment failure and reduced system performance with:

- Multi-level security handling
- Support of secure protocols
- Enterprise security integration
- Performance Server behind DMZ

Enchance Operation & Maintenance

Hardware Integration enables tight integration with telemetry platforms yielding significant operational and maintenance advantages. The capacity to configure field devices from a central location helps enhance operational efficiency with:

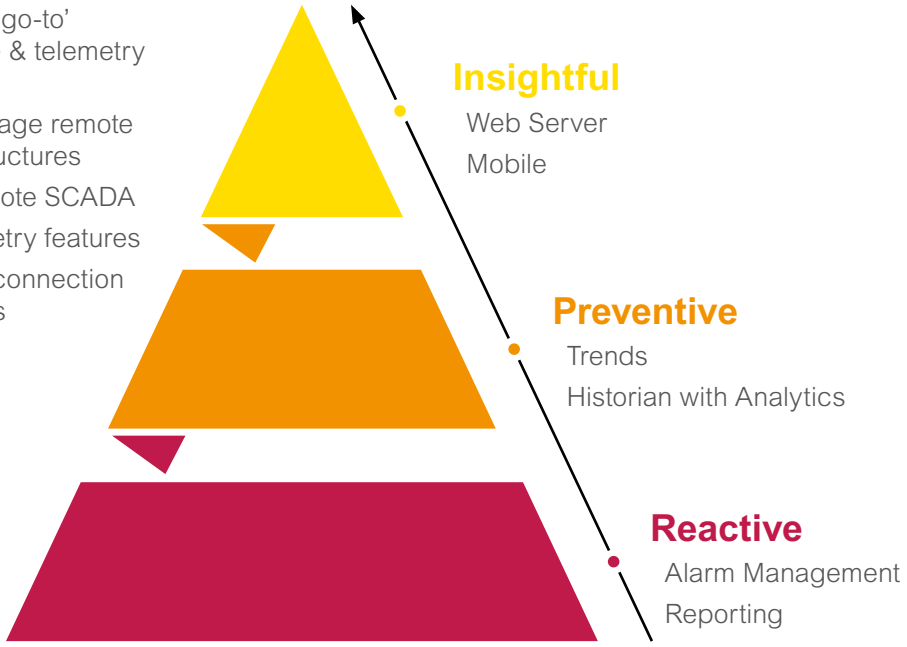
- Management of SCADAPack™ x70 Smart RTU configuration
- Management of SCADAPack E Smart RTU configuration
- Configuration and data collection from SCADAPack Flow Computers
- Direct access to Trio™ Data Radio diagnostics
- OFS (OPC Factory Server) communication with new and legacy Schneider Electric hardware

A Complete Solution

A superior cost-effective solution that helps reduce total cost of ownership for telemetry and remote applications with a suite of integrated functions including:

Geo SCADA Expert is the 'go-to' SCADA product for remote & telemetry markets

- Highly optimized to manage remote assets in critical infrastructures
- Integrated, scalable remote SCADA with ready-to-use telemetry features
- Open platform for easy connection to business & IT systems



Capable and Efficient Communicator

Extending Operational Value

Connect to external historian and analytics software.

Connect to SMS, Email and external systems for alarm annunciation by messaging and voice.

Integrate with IT infrastructure with Active Directory, backup and archive software, and Internet Information Server.

Extend the Value of your SCADA System

Built-in configurability, programmability and programming interfaces (APIs) enables extensions. Helping leverage:

- Advanced alarm management and situational awareness libraries
- Operator simulation, training and knowledge management solutions
- Enhanced performance through asset-management solutions

Switch from Preventive to Predictive

Geo SCADA Expert is designed to optimize the management of remote assets over non-permanent communications with total data reliability and integrity. A comprehensive feature set helps reduce costs and drive efficiency across the entire SCADA system with:

- Automatic back-filling of EcoStruxure Geo SCADA Expert Historian
- Multiple WAN and RTU line communication handling

Geo SCADA Expert's superior standards of integration, reliability and integrity help ensure engineering efficiency in the deployment and management of wide-area system networks.

Industry-Standard Event-Driven Protocols

- DNP3
- IEC60870-5-101/104
- IEC61850

Industry-Standard Scanning Protocols

- OPC
- Modbus
- SNMP

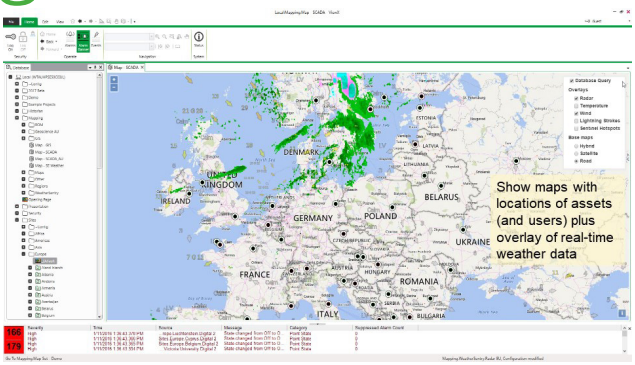
Proprietary Device Protcols

Many protocols available – see: Knowledge Base

Integrated Mapping

"The mapping functionality is probably the biggest change in the product since its release and has the potential to deliver significant business benefits in better understanding our asset base"

(Consultant, Large Enterprise Energy & Utilities Company)
Source: TechValidate Customer Survey Ref: TVID: 932-17B-3C5



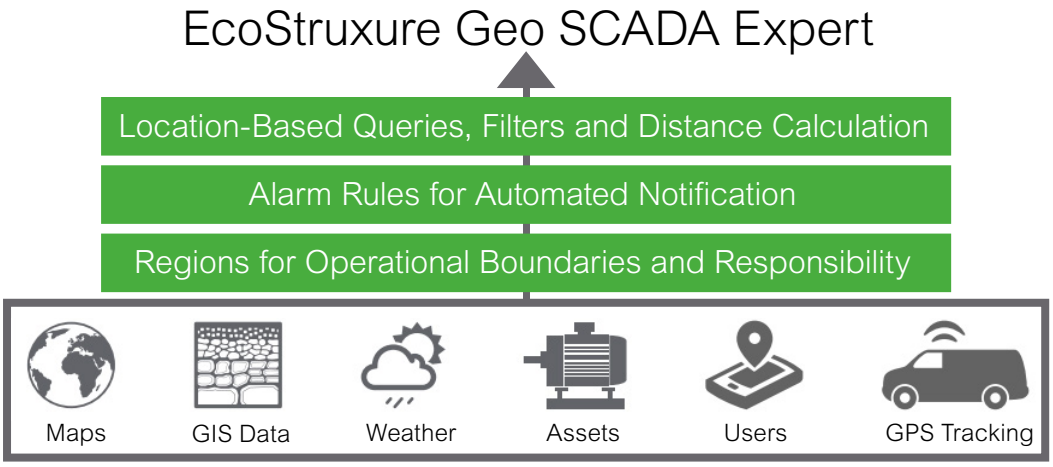
EcoStruxure Geo SCADA Expert offers intuitive in-built location-based alarming and filtering, overlaid with real-time weather data and GPS mapping; providing customers with unprecedented insights and control over their asset base.

Overlay the position of your assets and users, with animation based on alarm state, or other parameters.

- Location support – providing improved clarity of asset location via location-based alarming and filtering, with asset locations also displayed on integrated maps.
- Integrated mapping - facilitating the selection of online map sources, ArcGIS map information, and/or Web Map Service (WMS) information that can include other GIS, weather and other valuable real-time information.

Mapping Capability

The central hub for visualization and operation of your remote assets.



Versatile Web Clients

Virtual ViewX

Browser Independence

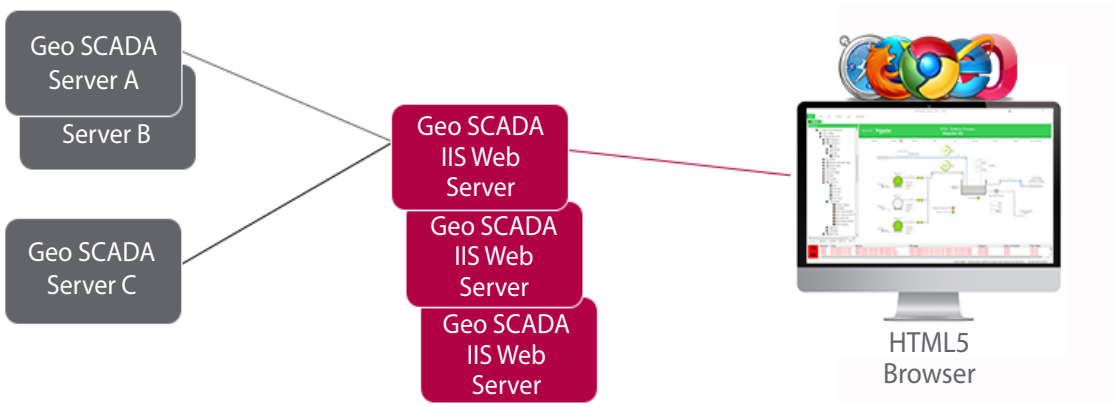
Virtual ViewX replaces the previous WebX server and extends the SCADA web functionality by providing browser-independence. Users can operate Geo SCADA Expert from HTML5 browsers such as Microsoft Edge®, Google Chrome® and Apple Safari®.

Extended Operations

The Virtual ViewX client permits the extended operational features of ViewX, such as editing trends, viewing 'popup' windows, searching for objects and navigating between multiple Geo SCADA Expert Servers.

Architecture

Setting up a Virtual ViewX web server is simple. It is installed onto the Microsoft Internet Information Server (IIS) foundation and is usually on a separate server from the Geo SCADA Expert server to help enhance security and scalability.



Features for Enterprise Remote SCADA

Mobile Apps

- Navigate and view live data

Alarm Management

- Persistence and suppression
- Flexible severities and lifecycle

Redundancy

- No downtime upgrades
- Revert to previous version

Security

- Certificates for assured communications

Life Is On | Schneider Electric

se.com

Disclaimer:
The information provided in this document contains general descriptions and/or technical characteristics of the performance of the described products or services. For detailed specification, performance and instruction of use, refer to corresponding Catalogs and user guides if available.

To the extent permitted by applicable law, no responsibility or liability is assumed by Schneider Electric and its subsidiaries for any errors or omissions in the informational content of this document or consequences arising out of or resulting from the reliance upon the information contained herein.

Schneider Electric reserves the right to make changes or updates with respect to or in the content of this document or the format thereof, at any time without notice.

Schneider Electric

35 rue Joseph Monier
92500 Rueil-Malmaison, France
Email: RemoteOperations@se.com

Document Number TBULM01028 v10

© 2019-2022 Schneider Electric. All Rights Reserved. All trademarks are owned by Schneider Electric SE, its subsidiaries and affiliated companies.
All other brands are trademarks of their respective owners. October 2022