



GEDLux

ELECTRICAL SYSTEMS AUTOMATION
SINCE 2008

SCADA Systems

www.gedlux.com

SCADA Systems

SCADA Expertise at the Core

Foundational Focus:

Since 2008, GEDLux has centered its Substation Automation solutions around Hitachi Energy's (formerly ABB) MicroSCADA X system.

SCADA:

SCADA is a system that monitors and controls industrial processes in real time. It collects data from sensors and devices, processes it, and allows operators to control operations remotely.

Pioneering SCADA Implementation for CIDE:

- Developed a customized MicroSCADA X solution for CIDE, serving over 230 rural Spanish distribution companies.
- Innovations included automated GIS data import, satellite-based map overlays, and legal reporting for fault incidents.
- GEDLux's SCADA expertise was the deciding factor in CIDE's selection, surpassing competitors like Schneider and Applus.



INNOVATE



Collaboration with SCADA Systems Hitachi Energy Finland:

- Shared proprietary SCADA code enhancements to support broader applications in future projects.
- Strengthened ties with Hitachi Energy in Germany, Finland, and Sweden, establishing GEDLux as a trusted SCADA partner.

Recognition as a Hitachi Energy External Channel Provider:

- Designated as an official provider of MicroSCADA and Substation Automation products in 2014
- Demonstrated leadership in SCADA-centric solutions for diverse energy sectors.



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Modernizing the Catalan Train Network (FGC):

- Delivered a comprehensive SCADA modernization for FGC substations, enhancing reliability and control for critical infrastructure.

Expanding SCADA Services with EDP Renewables:

- Secured and executed SCADA maintenance contracts for substations in Spain, Poland, and Romania.
- Built on successful European projects to win new contracts with EDP, demonstrating consistent SCADA performance and adaptability.

Latin American SCADA Excellence via Grupo TSK:

- Engineered and commissioned IEC 61850 Relion Transmission Relays and SAS systems for the Termosur 230 kV substation in Bolivia.
- Highlighted GEDLux's SCADA expertise with Hitachi Energy platforms, leading to expanded roles in Latin American energy projects.



Continual Innovation in SCADA Solutions:

- Developed and integrated custom SCADA applications tailored to client needs, such as automated fault reporting and GIS data mapping.
- Committed to advancing SCADA technologies that deliver efficiency, reliability, and scalability across global markets.
- GEDLux's focus on SCADA systems has positioned the company as a leader in advanced industrial automation, consistently delivering tailored solutions to meet the unique challenges of clients worldwide.

This trajectory reflects GEDLux's commitment to excellence and innovation, solidifying its reputation as a leader in Substation Automation solutions worldwide.



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Spotlight on project

I. Centralized Distribution Management System

The Association of Electricity Distributors, representing 190 independent companies, serves two million people across half a million homes in rural Spain.

To help its members meet new EU energy sector directives, CIDE sought an economically feasible solution that would support real-time monitoring, infrastructure control, and consistent reporting as mandated by legislation.

To address these needs, CIDE partnered with GEDLux to develop a customized solution for its small utility clients, resulting in a centralized SCADA system accessible to all members.



GEDLux Solution

- In collaboration with Hitachi Energy, GEDLux co-developed a Distribution Management System, customizing the MicroSCADA SYS600 to fit client needs.
- Members were given the flexibility to localize the SCADA system to their specific operations.
- Included a GIS import module for network distribution mapping.
- Integrated reports for SAIDI and SAIFI metrics.
- The GEDLux/Hitachi Energy Geographical Map import module, created through this partnership, was later officially integrated into the DMS600.

The centralized DMS and distributed SAS implementation became an industry model, showcasing GEDLux's ability to manage complex utility networks effectively on a smaller scale.



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Spotlight on project

2. Railway Control Centre Modernisation

Catalan Government Railways (FGC) sought to modernize its dispatch center for managing Barcelona's railway network to improve service reliability, operational efficiency, and cybersecurity.

A key part of this upgrade involved enhancing the dispatch center's remote-control system with a more visually intuitive, user-friendly telecontrol system equipped with advanced cybersecurity measures.

The entire modernization was to be completed without disrupting Barcelona's railway services, ensuring uninterrupted operations for Metro, commuter lines, tourist mountain railways, and rural train networks.



GEDLux Solution

- Migrated the telecontrol system from MicroSCADA 9.3 to 9.4.
- Introduced network topology coloring to improve clarity, allowing operators to interpret critical data more easily.
- Added advanced display features including zoom, panning, and de-cluttering options.
- Enabled real-time insights and comprehensive data analytics.
- Key technologies supporting the upgrade included the latest MicroSCADA Pro SYS600C, Historian data management, and newly integrated routers.
- Reinforced network cybersecurity to protect data integrity and system functionality.



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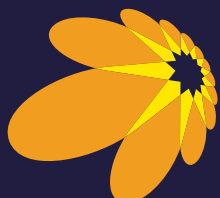
Spotlight on project

3. Transmission Dispatch Centre Upgrade & Migration

Celeo Chile expanded its operations by acquiring 29 transmission line assets, adding 899 kilometers of transmission lines and 27 substations across Chile. This acquisition required implementing a web-based HTML5 SCADA system to manage the new infrastructure.

To support this expansion, the Dispatch Centre's MicroSCADA PRO system, which initially controlled around 20,000 I/Os, needed to be upgraded and migrated to the MicroSCADA X system,

capable of handling 65,000 I/Os. Given the Dispatch Centre's continuous 24/7 operation, close coordination was essential throughout the project.



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GEDLux Solution

Developed a customized SCADA design with advanced visual displays and enhanced user interaction.

Supplied and configured RTU560s and 670s for new connection points.

Established a dedicated project team to respond to and adapt engineering solutions to real-time operational demands.



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