



*The HMI for gas terminals*

# zenon is chosen for KOGAS's Samcheok LNG terminal

The Korea Gas Corporation (KOGAS) required an electrical supervisory and control system for its latest liquefied natural gas terminal, at Samcheok. It decided on an innovative solution using COPA-DATA's zenon proposed by Korean system integrator NEXPO.

NEXPO had made several earlier bids to provide solutions for KOGAS's forthcoming liquefied natural gas terminals. This time around, NEXPO was determined to propose a winning solution. It partnered with Austrian industrial automation innovator, COPA-DATA, to design a solution using COPA-DATA's zenon HMI software with Schneider Electric relays. It was an innovative approach that offered a simple but complete solution for the extremely reliable control and monitoring of the facility.

## AN IMPRESSIVE SOLUTION

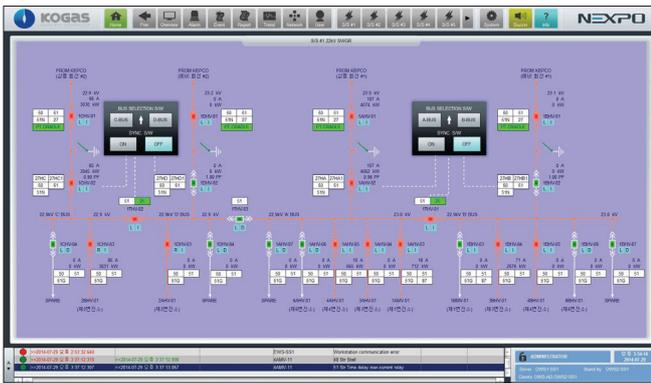
Kim Jung-Bae, CEO at NEXPO, was impressed by both COPA-DATA's technology and its support: "zenon is a better quality system than any we have used before. The ease of integration and the quality of the HMI and its report generator really stood out for us. We also enjoyed excellent communication with

COPA-DATA Korea from whom we received excellent technical support. This was a really important project for us strategically, as we are a new entrant to this sector – we needed to ensure that our proposed solution stood head and shoulders above the others."

NEXPO were looking for a solution that would:

- ▶ Reduce operating man power and human error
- ▶ Enable electric power protection, control and monitoring
- ▶ Limit power failure spread, and
- ▶ Reduce fault recovery time

In addition, KOGAS wanted to ensure that any solution would be simple to operate and maintain. In January 2013, NEXPO decided that the electrical supervisory and control system (ESCS) using zenon would best meet these requirements.



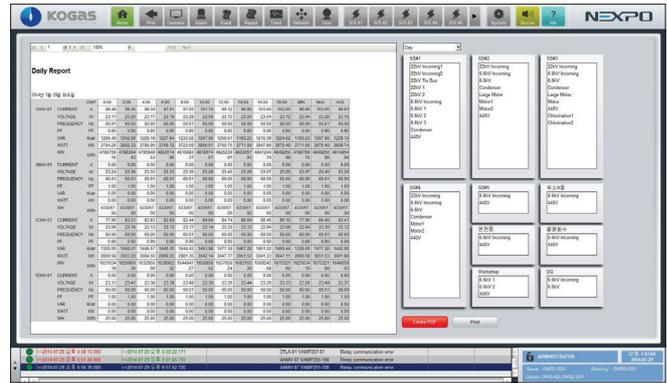
Using zenon, NEXPO was able to create a clear visual overview of electrical network operations across the entire Samcheok site.

## FLEXIBLE ENGINEERING

Hong Seok-Bong, the project manager at NEXPO with responsibility for the KOGAS Samcheok LNG terminal project, explains why zenon was a compelling factor in NEXPO winning the bid: “zenon promised easy fault analysis, a stable communication network and a reliable system of redundancy. KOGAS was very satisfied with the graphical design and the functionality of the software.” zenon also impressed during the project implementation, as Hong Seok-Bong explains: “Initially KOGAS required numerous functions of the project specifications. Thanks to zenon’s flexibility and many preconfigured function buttons, we were easily able to deliver our various requirements. zenon made the project team’s work much simpler.” The scope of the project included the control and monitoring of the entire facility and all its electrical equipment, including the IEDs, E/M generator, transformers and capacitor banks. This meant that any system had to adhere to the IEC 61850 standard.

## ENSURING IEC 61850 COMPLIANCE

Project manager Hong Seok-Bong describes how zenon helped NEXPO to meet this requirement: “The KOGAS project required IEC 61850 standard communication between the IEDs and zenon. We worked in conjunction with COPA-DATA Korea to test the system and ensure compliance with the protocol. Because it was our first project involving this requirement, COPA-DATA sent out an expert in the standard from its headquarters in Salzburg to support us. We have been very impressed by the support and service provided by the COPA-DATA team at all levels. The team here and at the client found zenon far superior to other software.”



zenon’s Report Generator is highly valued by the Samcheok team; providing insight into overall performance, or that of particular pieces of equipment or parts of the network, over different time periods.

## A REWARDING PARTNERSHIP

NEXPO’s CEO, Kim Jung-Bae, has been impressed by the overall commitment by the COPA-DATA team. “The level and professionalism of support we have received, combined with the impressive functionality and rapid, simple engineering of the zenon software, has impressed us no end. We feel that using zenon for this LNG terminal project has helped cement our technical and industrial expertise. We expect that this project will be the first of many successful projects in this sector for NEXPO and zenon.”

## KOGAS SAMCHEOK LNG TERMINAL ESCS

- ▶ Innovative system design using IEDs and zenon HMI software
- ▶ Rapid and flexible project engineering
- ▶ Impressive graphical interface
- ▶ Simple system operation and maintenance
- ▶ zenon Report Generator for powerful reporting functionality
- ▶ IEC 61850 compliance
- ▶ Integration with PIS system through Ethernet
- ▶ Remote monitoring and control
- ▶ Optimum reliability and security