



zenon
by COPA-DATA

zenon – Use in Hydro-Electric Power Plants

Hydro-electric power plants are visualized and controlled, as well as optimized with comprehensive reporting, using zenon software.



Get Hydro-Electric Power Under Control

Use zenon Energy Edition for the monitoring, control and optimization of hydro-electric power plants. You thus have not only all plants under optimal control, you also benefit from lower operating costs and increased productivity.

The monitoring and control of hydro-electric power plants with their specific output data is a particular challenge. zenon Energy Edition offers you suitable functions for increasing efficiency – from project configuration through to visualization and control, to reporting. You use the system to control individual power plants or many different plants in a higher-level system.

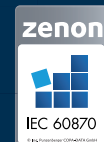
PROCESS AUTOMATION AND ENERGY GENERATION UNDER ONE ROOF

You save time and aggravation, because zenon connects the world of energy generation and distribution to that of process automation in a single development environment. Thanks to the diversity of drivers for both worlds, you can connect all subsections of a hydro-electric power plant in a system directly – without a gateway. The system supports command

processing including driver-specific characteristics such as “Select Before Operate”, as well as the display of hydraulic schematics that have been imported from AUTOCAD, for example, or the use of faceplates for motor and pumping controllers.

VERSATILE – FROM HMI THROUGH TO THE CONTROL ROOM

zenon is highly scalable. The system can be used as a local HMI (Human Machine Interface) for the components of a hydro-electric power station, such as turbines, generators and converters. Alternatively, you can use applications that have been created for this in control room SCADA directly, without having to create the application again from scratch. The display can be exactly the same in the control room as it is on the local system. This is how you ensure quick recognition



and avoid errors. And because maintenance is only carried out in one place and transferred automatically, zenon is particularly easy for both users and maintenance teams.

PERFECT REPORTING CHAINS IN THE EVENT OF AN ALARM OR MAINTENANCE

In the event of problems in unmanned control rooms, zenon uses the Message Control module to inform the on-call staff by means of SMS, email or a text-to-speech call. If somebody cannot be contacted, the system automatically informs the next person in the escalation chain. This reduces staffing costs and ensures a quick reaction in the event of problems.

For many reports, output in certain formats is necessary for further processing. For this reason, zenon outputs alarm lists in a generally readable format (.CSV) so that you can freely analyze data when you need to or can create reports in Excel or other applications.

QUICK ACCESS TO THE ARCHIVE FOR ANALYSES AND REPORTS

Archiving is a central function of zenon. Alarms, events and measured values are recorded and are available for subsequent analyses, reports and trends. Archive data can be

stored in the internal database or, alternatively, in external databases or the cloud. Regardless of its location, all data is always stored transparently, without the user having to worry about where it is.

SIMPLE REVIEW OF THE PAST WITH THE PROCESS RECORDER

Often it is necessary to reconstruct past states in the power plant or in the grid, such as after a problem for example. zenon does away with the laborious search for results and measured values in recorded lists. The integrated Process Recorder displays the past states of switchgear clearly in a process screen. Navigate chronologically using the time bar. This is how you can better analyze problems, record affected areas more quickly, and more easily identify data for entry in the prescribed register of problems.

FROM IEC 61850 THROUGH TO PROCESS SIMULATION

zenon supports all common communication protocols in the energy industry, such as IEC 61850, IEC 60870, DNP3 and others. Further functions include comprehensive visualization possibilities, easy reporting, well-thought-out process simulations and much more.

OUR SOLUTIONS FOR THE ENERGY INDUSTRY:



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