

zenon with ICCP

zenon supports ICCP/IEC 60870-6/TASE.2

For connection with a higher-level system, zenon offers an ICCP interface in accordance with IEC 60870-6/TASE.2. The ICCP interface has been implemented as a zenon Process Gateway and, therefore, has access to the entire variable set in the zenon application.

The Inter-Control Center Communications Protocol (ICCP) is used for transmitting data between network control centers. ICCP is also known as IEC 60870-6/TASE.2 (Telecontrol Application Service Element 2) and is based on the internationally standardized messaging system MMS (Manufacturing Message Specification – ISO 9506).

It is implemented in zenon with the aim of enabling bidirectional data exchange with another process control system. In this scenario, zenon acts as either the ICCP server or the ICCP client. Data can be exchanged periodically (conformance block 1), spontaneously (conformance block 2), or via commands (conformance block 5).

The ICCP connection between a third-party control system (or several of them) and zenon can be established in the form of an ICCP server. In any additional configurations between zenon and a remote control system, zenon can act as the server or the client. Until the point at which the communication set-up request is issued, zenon acts as the server. Following this, data is exchanged in both directions. In all system configurations, zenon checks the domain names and bilateral tables in order to

prevent unauthorized connection. Bidirectional data exchange will not commence until this is established.

FEATURES IN ZENON

- ▶ Point type: state, discrete, and real
- ▶ Support for None, Quality Flags, Time Stamp, Extended, and Time Stamp Extended classes
- ▶ Supported telegram types for commands: Operate, Select (server only), Success, plus additional indicators: Timeout, Local Reset, and Failure (client only)
- ▶ Synchronization of domain names and bilateral table
- ▶ Online checks of whether all ICCP data points configured in the zenon ICCP client exist on the remote ICCP server
- ▶ Object name for ICCP communication independent of zenon variable name



FAST FACTS

- ▶ Data exchange as server and client in one service
- ▶ Support of Read, Write and Commands
- ▶ Automatic configuration of Data Sets and Transfer Sets
- ▶ Optional manual parameterization of Data Sets
- ▶ ICCP Server connection to multiple remote ICCP Clients
- ▶ Automatic check of match of bidirectional table
- ▶ SBO (select-before-operate) commands supported for ICCP Server and Client
- ▶ Support of TLS encryption and authentication (IEC 62351-3/-4, incl. compatibility mode)



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