CoolAVR™

New 3rd party SCADA system
For Basler DECS excitation control systems…

CoolAVR - SCADA

Generator control powered by

Basler

Press Ctrl+L
for Full Screen

Introduction

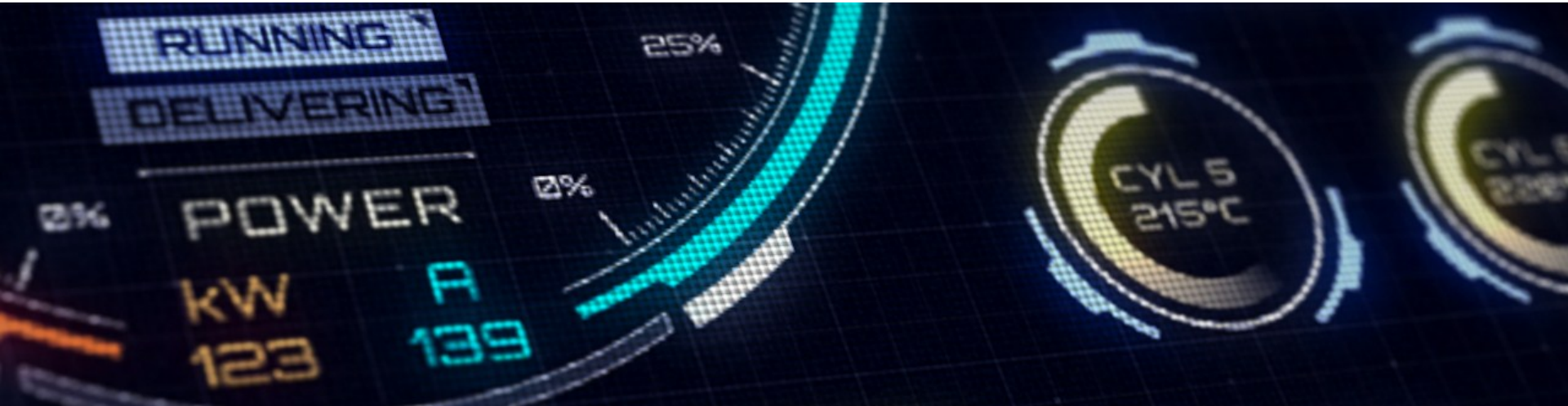
- CoolAVR™ is a 3rd party, lightweight and full scale version of SCADA system developed for DECS digital excitation control systems manufactured by Basler Electric. For more information about their products visit www.basler.com

- CoolAVR™ is a custom made SCADA for power management systems and digital AVR excitation units. Primary target are customers who want to implement top edge SCADA system into their projects, but have no capacity or resources to develop their own supervisory control and data acquisition system

- Marine CoolAVR™ is custom made SCADA for marine power plants and power management applications

Features

- Hassle-free, ready to use software for your application
- AVR monitoring up to 16 Gen-Sets
- Circuit breaker control and real time monitoring
- Graphics layout of the plant
- Real time historical Trends, Alarms, Events
- Reporting capabilities, export to PDF format
- Daily backup of historical trends
- Modbus RTU and Modbus TCP connectivity
- Statistical calculations of power, productivity, etc.
- Thin Client comm. up to 8 stations
- Password protected settings
- Screen resolution 1280 x 1024 for small 17” display
- Screen resolution 1920 x 1080 scalable up to 100” display or TV set
- OEM design for system integrators available
- Operating system Microsoft Windows 7 or Windows 7 Embedded

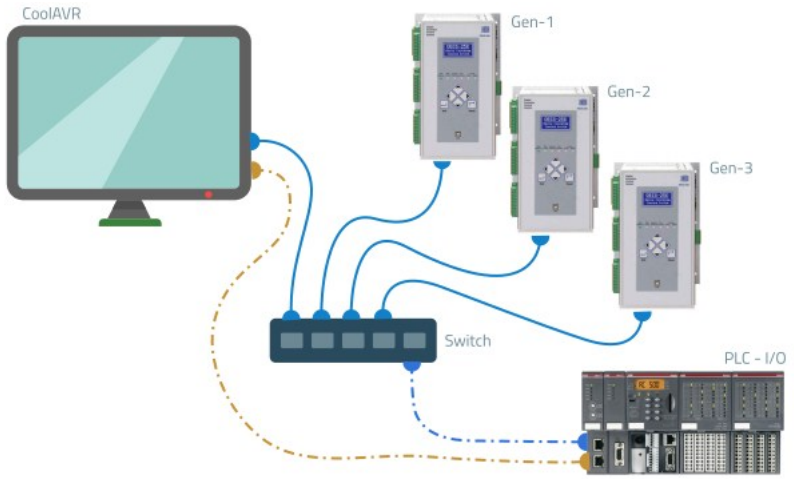


Connectivity

- Modbus TCP and Modbus RTU are available communication protocols and ComAp™ hardware can be connected to either of them. Usually Modbus TCP is providing main communication backbone due to speed advantage over Modbus RTU. Therefore Modbus RTU can be utilized for other data acquisition tasks if necessary

Example:

Three DECS nodes on Modbus TCP with one CoolAVR™ station. Additional PLC is optional.



Historical Data

- CoolAVR™ is logging and storing alarms, events and data trends for service, troubleshooting, maintenance or statistical purposes

Data Trends

- Up to five signals from each controller can be logged in historical Trend chart. Usually generator Power (kW) and Current (A) are commonly used among others. Sampling rate for historical Trend data is adjustable by user in three steps:1000ms, 500ms, 250ms.Total data trend storage capacity for sampling rate 1s / 24h is currently set to 1 day. Each sample has its own Timestamp. There is possibility to automatically save daily trend data to separate files or take a snapshot of actual trend for evaluation. History logger can store historical data up to few years

Active Events

- Important actions of controller and user actions on the Station are stored in Event logger. This feature allows troubleshooting of potential problems or tracking events

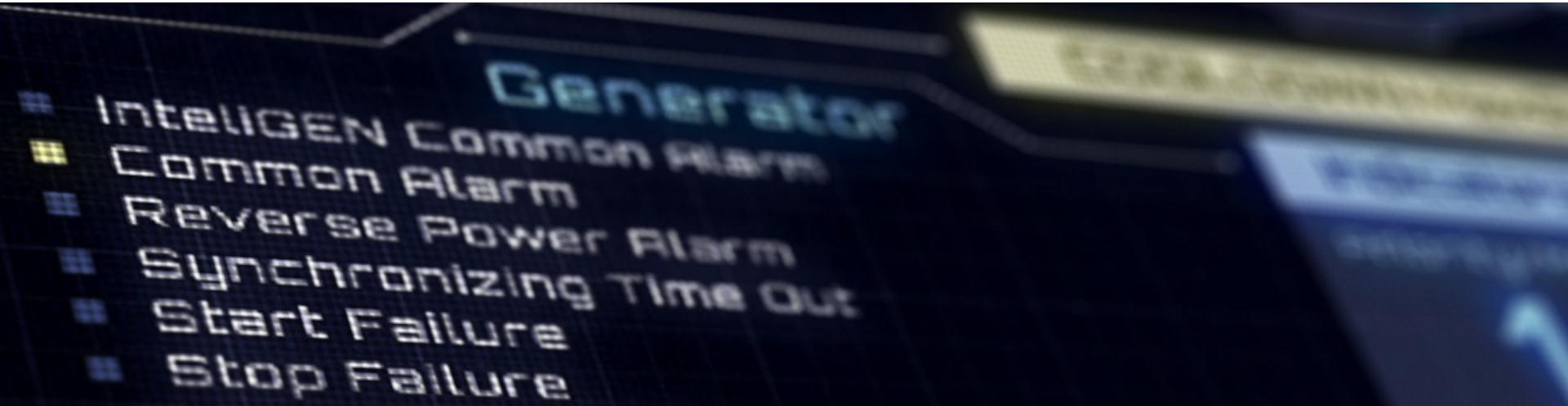
Active Alarms

- Each controller can generate different alarm or warning messages. All messages are logged, highlighted and stored by CoolPMS™ to internal database. Alarm processing block can hold up to 100000 alarm messages and is configurable. Every message has two Timestamps. One is showing Alarm occurrence and second Alarm acknowledgement by operator. Alarm list can be exported into separate PDF or Excel file in necessary

Statistical calculations

- CoolAVR™ allows calculating of statistical data for production or maintenance purposes. This feature is project dependent and usually will be done upon specific request

  - Generated power by whole plant on Daily / Weekly / Yearly basis
  - Generated power of each Gen-Set on given basis
  - Consumption of each load segment on given basis
  - Calculating of fuel consumption of given engine or whole plant
  - And much more…



Hardware and screen resolution

- There are six versions of CoolAVR™ hardware. Available screen sizes are from 17” to 55”. Screen resolution can be 1280x1024 or Full HD 1920x1080

- Part of CoolAVR™ package is Barebone industrial PC supporting both resolutions. If customer will choose this option, small industrial PC with preinstalled software will be delivered. Size of the monitor will be decided by user in project specification

- Industrial PC has HDMI output. Therefore all modern Smart TV set can be used as display device. This option is cheaper alternative to big PC monitors which are way too expensive for this task

Demo Application / Marine Example

- Every CoolAVR™ application is considered as unique as configuration and functionality is solely dependent on project architecture
- Layout of every application will consists of standard and special screens and will be dependent on customer's specification
- Specific unique design and topology can be developed for system integrators

Thank You !