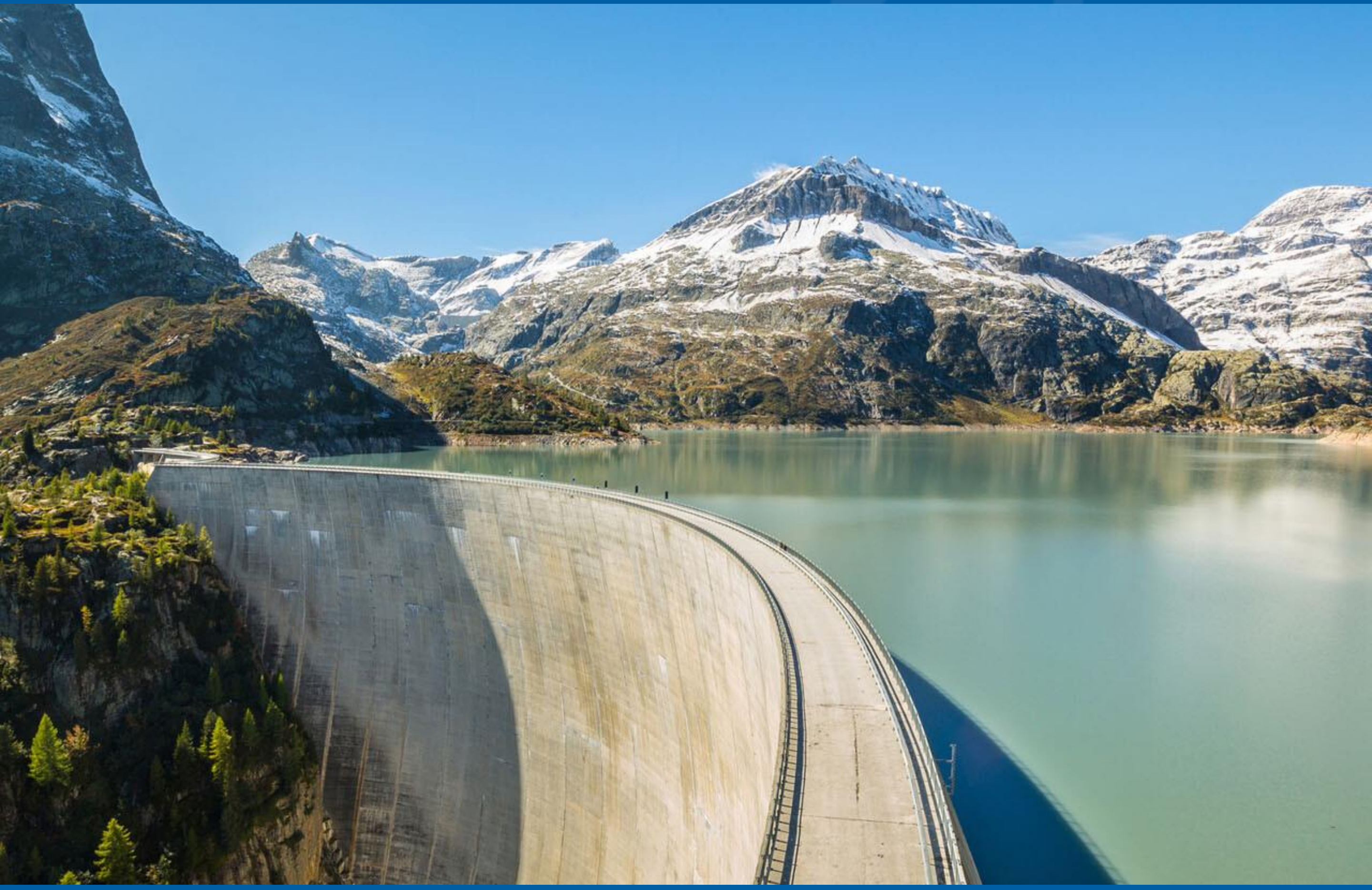
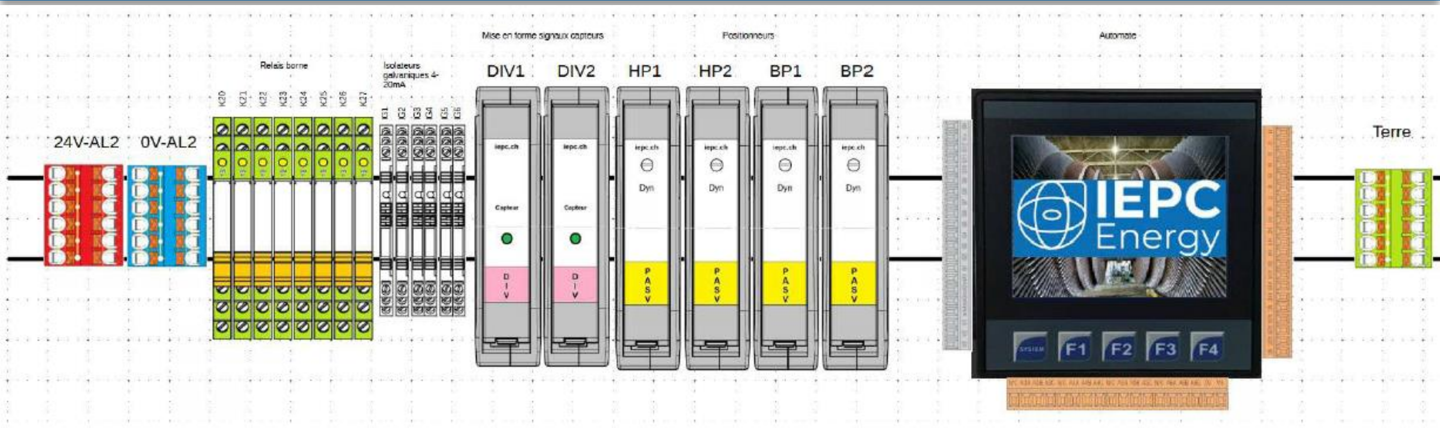
IEPC Energy



STG 1000 Steam Turbine Governor

www.iepc.ch

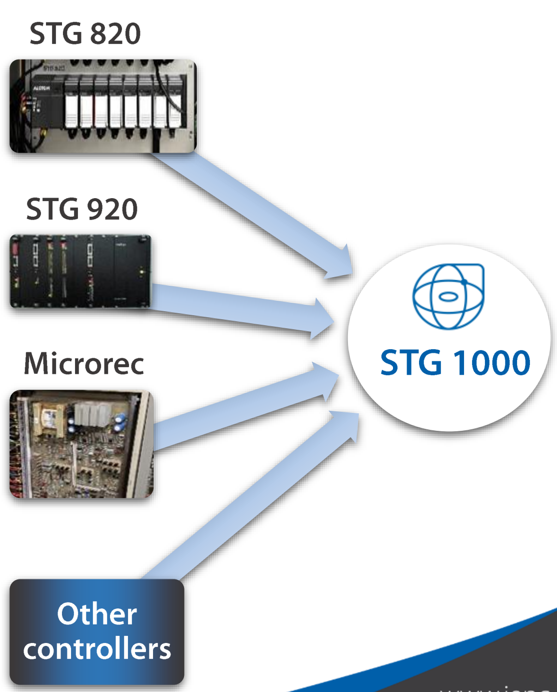
A new generation governor, designed to replace Alstom® older controllers



The STG 1000, designed by Alstom® technology experts specializing in regulation, operation and maintenance, was developed in accordance with the following guidelines :

- Selecting the appropriate industrial programmable controller for regulating steam turbines with multiple communication protocols
- Simplifying programming with increased functionality
- Adapting system for with all turbines and processes on the market (single/multi-intake, regulated intake or extraction, etc.)

RETROFIT



Why choose the STG 1000 ?

The main advantages of the STG 1000

- **Expansion possibilities (remote I/O, remote HMI)**

The STG 1000 can manage a very large number of remote inputs and outputs and has no limit on the number of possible remote HIMs.

- **Dedicated displays**

Vibrations and safety chain are displayed on dedicated synoptic views. HMI views can be customized to suit your requirements.

- **Simplified Maintenance**

Consulting acquired measurements, managing initial faults and online help for operators are tools that improve first-level maintenance. Replacing equipment is simple.

- **Standard Communication**

Thanks to its standard protocols and connectors, the STG 1000 can easily be connected to other systems, such as DCS, overspeed rack, vibration rack…

Why choose the STG 1000 ?

The main advantages of the STG 1000

- **Simplified commissioning**

The valves can be tested from a dedicated view. Start-up curves (speed, valve positions, power, pressure, etc.) are accessible from the HMI.

- **Compatible with all turbine types and industrial processes**

The STG 1000 can control a single-suction or multi-stage turbine, with or without extraction, with back pressure or condensation, driving either an alternator, a pump or a compressor.

- **Program contained on SD card**

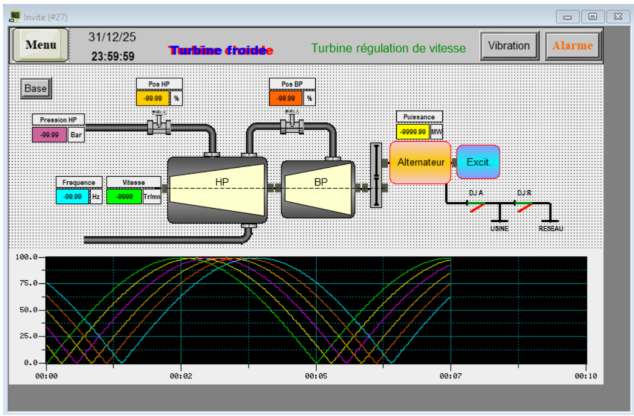
The program is integrated into the SD card and does not need to be loaded.

- **Open-Format Data Logging**

Events and alarms are recorded in CSV files, backed up every 24 hours on a USB stick, and can be viewed on a PC.

- **Off-the-Shelf Spare Parts**

The availability of components limits downtime in case of a problem.



STG 1000
Detailed Description

Turbine controller features:

- CPU with 1 MB memory
- Cycle time < 15 ms
- 8 digital inputs
- 4 fast counter inputs
- 12 digital outputs
- 6 analog inputs
- 4 analog outputs
- 1 RS242 multiprotocol serial link
- 1 RS485 multiprotocol serial link
- 1 multiprotocol Ethernet port
- 1 CAN fieldbus

Programming :

- LADDER
- FBD
- Command line

External modules:

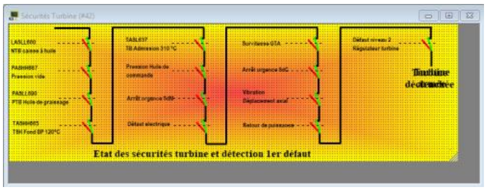
- Position loop control
- Speed signal processing

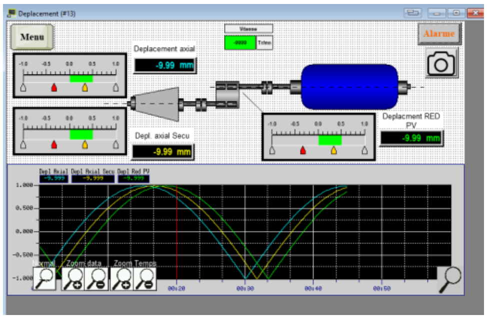
STG 1000 Components

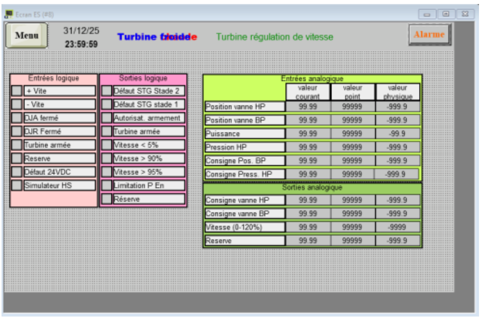
A complete and modular human-machine interface (HMI)

The functions of the STG 1000 HMI

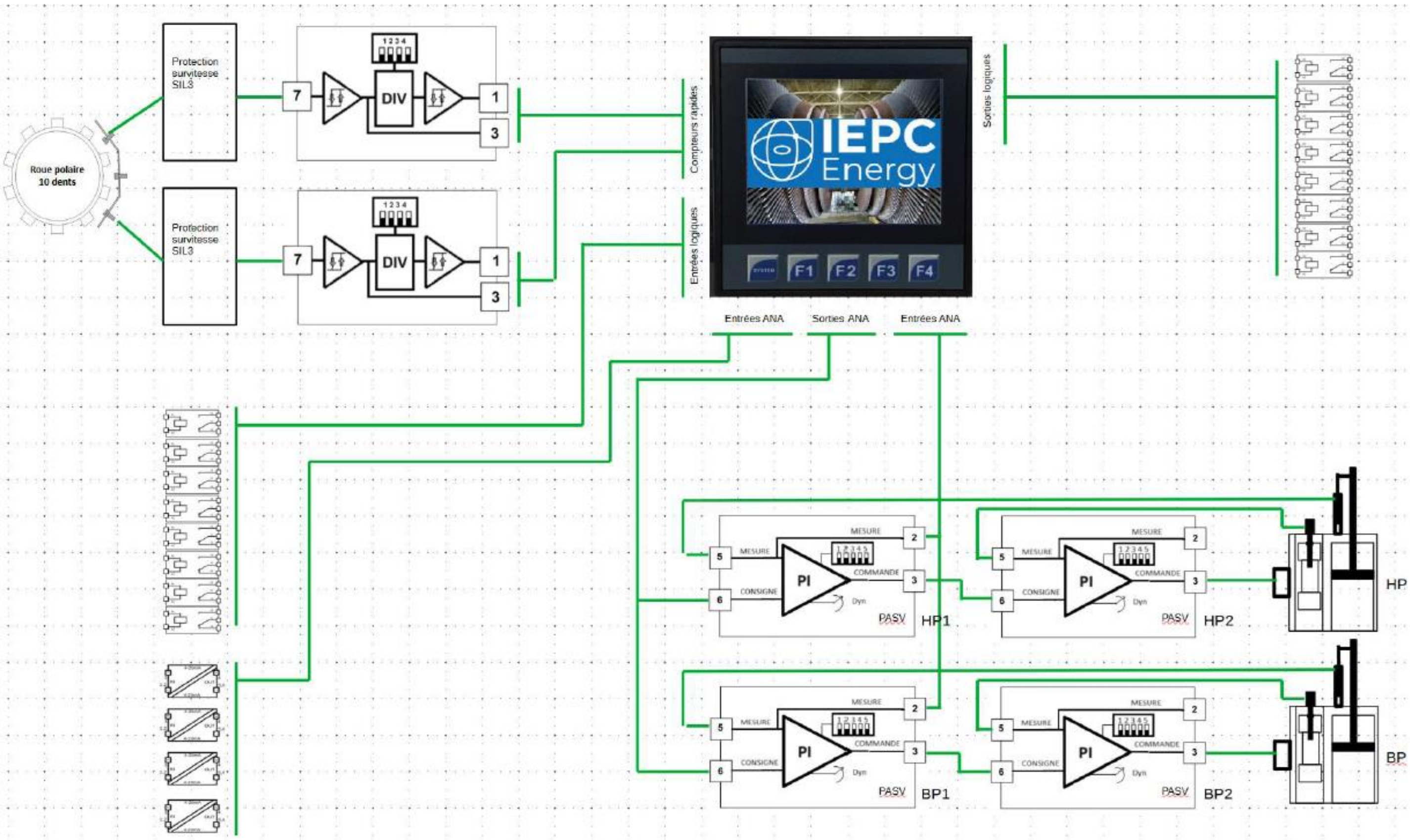
- COM protocol in Modbus TCP
- Machine control from the HMI
- Display of start-up and linearization curves
- Recording of safety faults
- First fault management
- Real-time display of alarms and events
- Historical recording of events and alarms + CSV transfer
- Integrated maintenance screen to assist the operator
- Integrated online help to assist the operator
- Multiple screens can be used (unlimited number)
- Interface possible with vibration systems (measurements, thresholds)





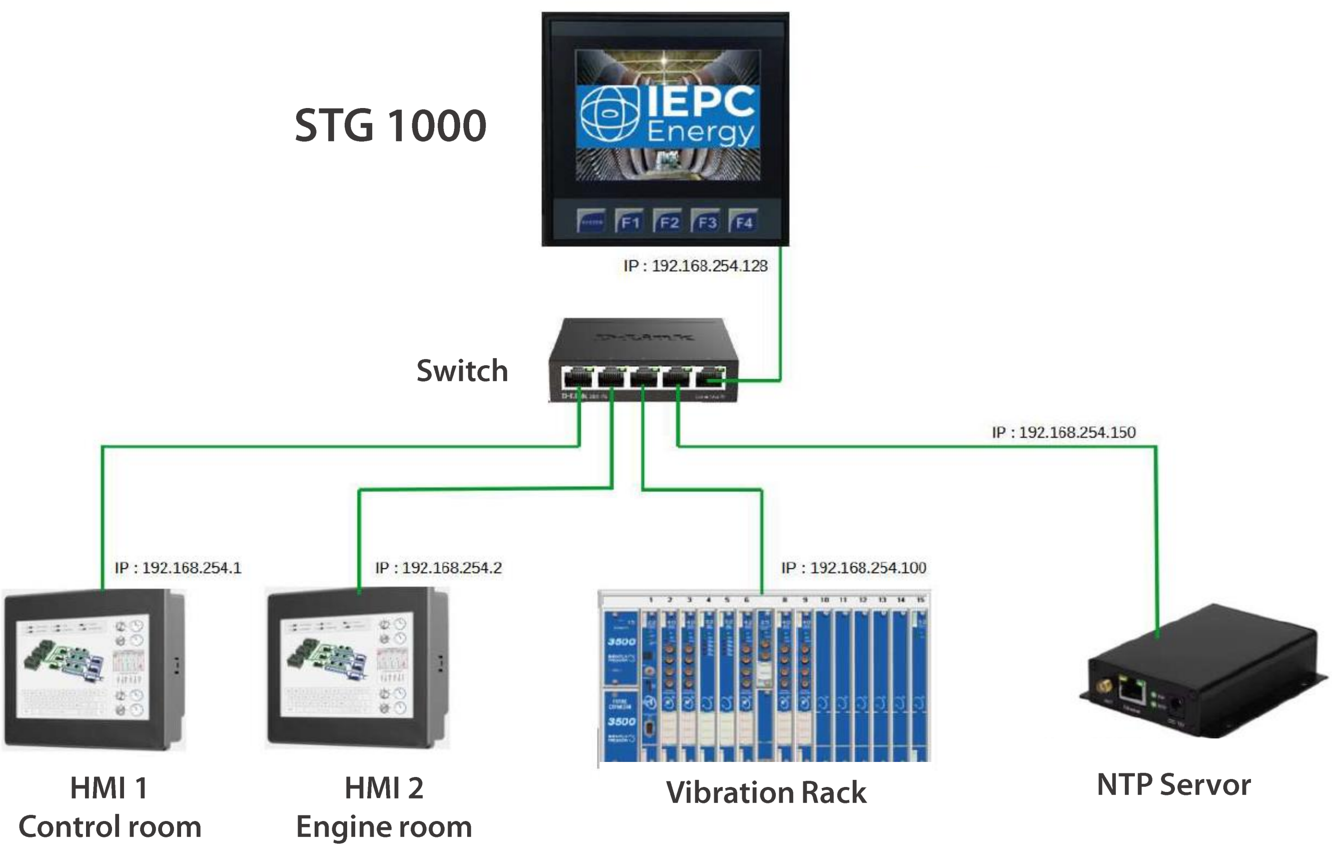


Application Example



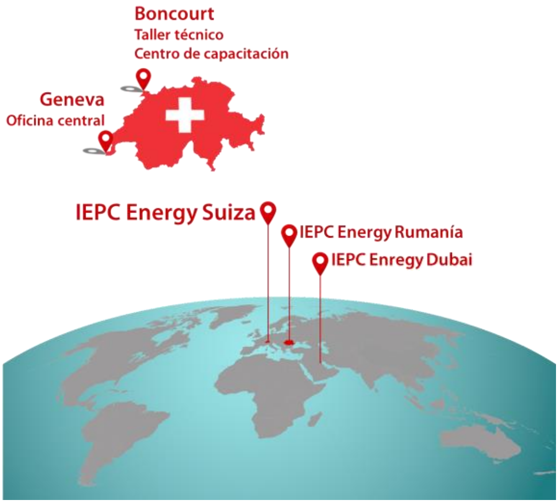
Configuration Example

NETWORK



IEPC Energy in brief

- Over 2,000 field services performed since 2009
- 12 million euros in sales since 2018
- 65 field service engineers assigned worldwide
- 85% of our team are former ALSTOM engineers



Various references

Baker Hughes
EDF
IBERDROLA
ENGIE
TAQA
GE VERNOVA

If you would like to learn more about our services, please contact us.

IEPC Energy S.A.
Rue des Charmilles 8
1203 GENEVA
Switzerland

Phone : +41 22 338 07 20
@ Mail : contact@iepc.ch