Automation Controller

Gentec Automation Controller is the perfect solution for your substation retrofits

RTU series

The **Gentec Automation Controller** platform was developed based on Hydro Quebec needs and requirements. Hydro Quebec operates one of the largest electricity distribution network in North America.

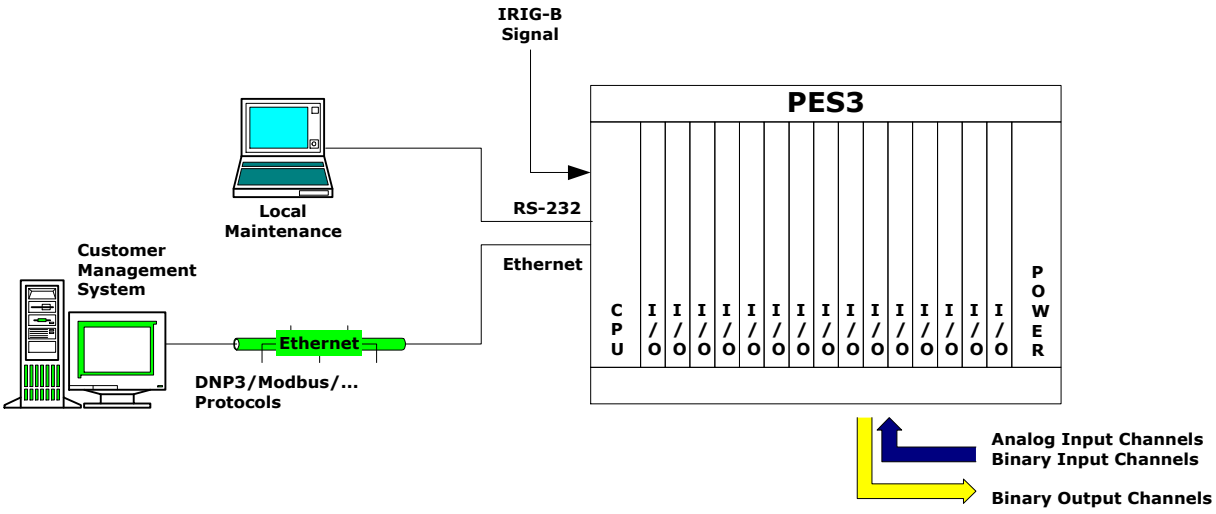
BENEFITS

- **Mature and proven technology**
- **Plug-and-play system**
- **Intuitive management software programs**

SYSTEM FEATURES

- **Distributed architecture**
- **Maintenance mode**
- **Individual I/O indicators (LED) on each card**
- **Optional in-shelf or external VGA touch screen display**
- **On-line card diagnostics**
- **1ms event tagging (IRIG-B)**
- **Hot swap capability**
- **Ethernet**

Understanding the need for your maintenance people to work efficiently. **Gentec Automation Controllers** can be equipped with an external or in-shelf VGA touch screen display.



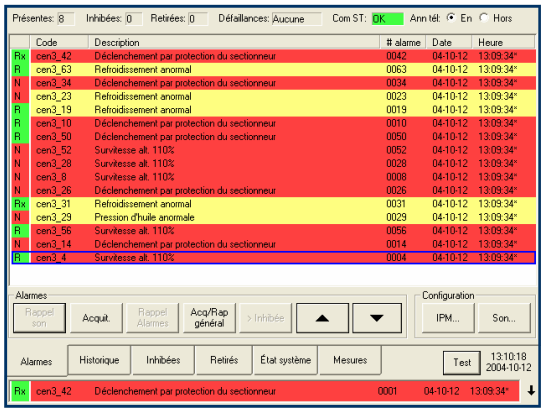
Gentec Automation Controllers can be loaded with our smart graphical software applications which feature:

- » An alarm logger module — **Annunciator**
- » A Sequence-of-Events Recorder module — **SER**
- » An analog measure viewer module — **Measure**

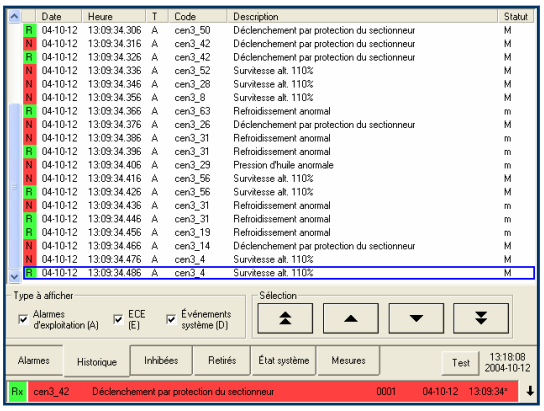
...and all that accessible locally or remotely

When provisioned with our gateway, our **Automation Controller** will process and make the data available directly to your SCADA system.

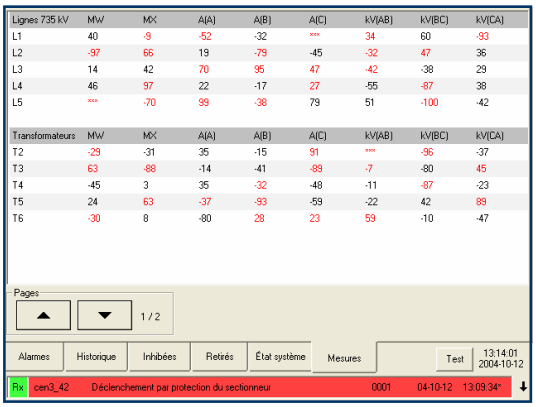
Annunciator View



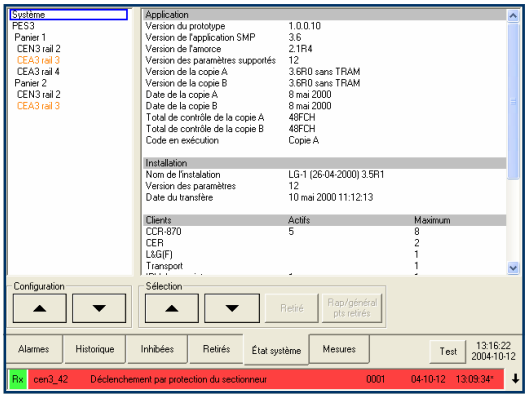
SER View



Measure View



System View



CARDS FEATURES

Filtering
Numerical filtering possible through FPGA and DSP.

Throughput
Full throughput available via 100 Base-TX / 100 Base-FX Ethernet links

Fail-safe
Watchdog and reset circuits allow to continuously monitor the proper performance of the input switching section.

Auto-Calibration
All analog input channels self-calibrate at start-up.

Synchronization
IRIG-B Sync is available with Gentec PES3 shelf

Hot swappable

On-line diagnostics

Visual Indicators
Input status is available by means of LEDs on the card faceplate.

System Overview

Shelves and Cards
- Up to 16 Shelves
- Up to 17 I/O Cards
- Up to 8704 Input/Output Points

CPU
- 32-bit Motorola MPC series
- 32Mb SDRAM

Power
- 105Vdc-140Vdc or 108Vac-132Vac
- Single or Dual

Communication
- Local Front RS-232 Maintenance Port
- Remote Rear RS-232 Port (2x)
- Ethernet 10Base-T/FL or 100Base-TX/FX
- 1ms IRIG-B Synch. Input

Others
- Individual Indicator (LED) on I/O
- Optional In-shelf VGA Touch Screen

Input/Output Cards

16-Channel Analog Input Card
- 16x Isolated Differential Inputs
- ±2.56Vdc and ±10.24Vdc Input Range
- 0.2% Accuracy

16-Channel 100kHz Analog Input Card
- 16x Isolated Differential Inputs
- ±2.50Vdc or ±350Vdc Input Range
- 0.1% Accuracy

32-Channel Binary Input Card
- 32x Optically Isolated Inputs
- 2ms—65ms Filtering
- 500uS Scan Rate

16-Channel Binary Output Card
- 16x Isolated Relay Inputs
- Form-C Contacts 2A @ 30Vdc/250Vac

Mechanical Specifications

Dimensions (LxHxD)	483cmx355cmx316cm (19”x14”x12.4”)
Color & Finish	Aluminium & Black Mat

Environmental Specifications

Temperature	
Operating Temperature	-25 °C—55°C (-13°F—131°F)
Storage Temperature	-40 °C—85 °C (-40°F—185°F)
Humidity	0—95% Non-condensing
Cooling	Natural or Forced Convection
Altitude	0% 0-3300ft (1000m)

Safety Specifications

Environment Testing	IEC 60068-2-1 /-2 /-3
Fire Resistance	UL 94V-0
Shock and Vibration	IEC 60255-21-1
Surge Withstand Capability	IEC 60255-22-1 /-4
Dielectric Strength	IEC 60255-5
ESD	IEC 61000-4-2
EMC Radiated / Conducted	IEC 61000-4-3 /-6

2625 Dalton, Quebec (QC), Canada G1P 3S9
(418) 651-8000 / www.gentec.ca

gentec

Printed in Canada—02/2005