

CONTROL OR MONITORING AT A DISTANCE ?



Plant, or equipment



Processes, or the environment

MicroControlstar For remote control and monitoring

MicroControlstar monitoring & control solution reduces operating costs and increases efficiency - often with no impact on the capital budget.

Reduces the Carbon Footprint

Specialists are not required- Existing personnel can operate and benefit from the system



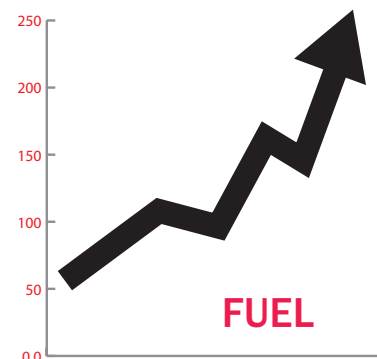
**The MicroControlstar
An RTU, Micro PLC, and
logger in combination, it
is complete with licence
free SCADA &
configuration software**

24/7 information directly to the skilled personnel-wherever they travel.

A full log of actions and measurements provides the detailed support for decisions and actions.

Complete remote control.

Systems can be installed with a minimum of disruption to infrastructure and plant.

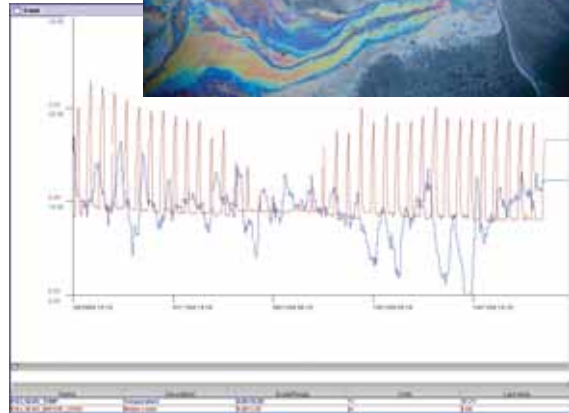


The alternatives are too expensive and not sustainable

THE MicroControlstar - SYSTEM



Environmental monitoring 24/7, reporting and SMS alarms even for sites without power.



A months river level & temperature graph for a tidal outfall



Users access and control the MicroControlstars using their own SCADA and live data served from the TM-SCADA over a Broadband, Ethernet, GSM, GPRS, 3G or PSTN connection.

The entry level Microcontrolstar system is composed of at least one MicroControlstar and a TM-SCADA box.

All system are complete with Licence Free software, including the programs to load SCADA on 4 user PC's, allowing each PC to serve a complete SCADA image. The PC's can be either local or remote to the TM-SCADA.



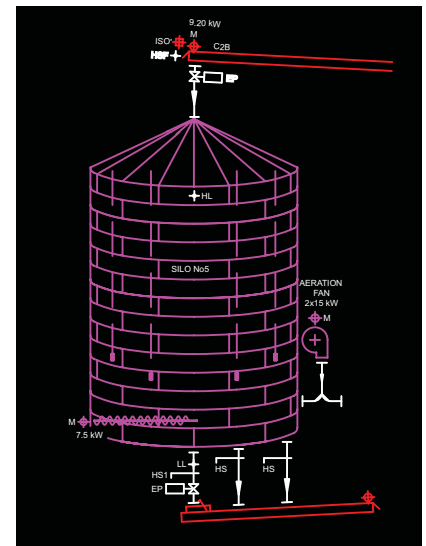
The TM-SCADA
Is the powerful shoe box sized hub of the MicroControlstar network

A single TM-SCADA box will support up to 100 MicroControlstars or the powerful CS3000 Controlstar®.

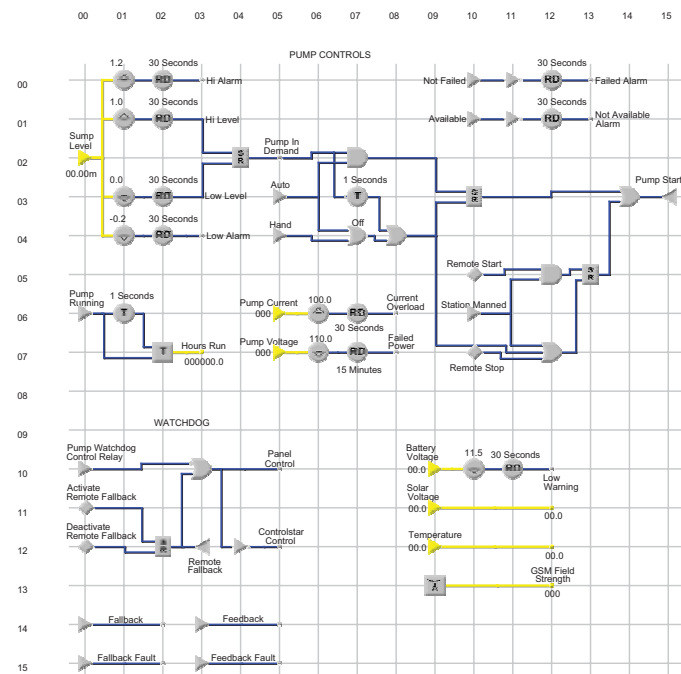
TM-SCADA provides data archiving and is based on the IBM 'Cloudscape' Relational Data Base; tools are included for data export to third party packages.



MicroControlstar is a RTU, Micro PLC, and Logger combined. The system software includes a fully integrated configuration package which is known as 'Fusion'



**No Licence Fee and software that supports 1-4 concurrent users.
The MicroControlstar reduces direct operational costs
and contributes to all aspects of the business.**



The MicroControlstar
Communication by GSM/GPRS & modem with full international approvals. A RS232/485 port can support SDI-12 connection with the configuration being controlled by software. The standard RS232/485 interface can be configured to have Modbus (RTU either master or slave), or it can communicate via either an external modem or radio.

The MicroControlstar® 'live' function block PLC programming.
The pump control program above, has remote set point adjustment, remote start/stop override, and phase current and voltage measurement.

Instrumentation Interface

A 20 bit ADC, with two differential input channels. The common mode range of the differential inputs is 0-12V with a measured range of 2.5Volts. The interface includes to precision 100R resistors for use as current sinks. The system has a 110dB notch filter for mains filtering at either 50 or 60 Hz.

The Microcontrolstar has the following Digital I/O channels:-

- 4 Digital inputs, range 0-24volts
- 2 Digital outputs, which are protected open collector outputs that can each, sink a load of 0.5Amps from a 24 volts source (external to the Micro).
- 4 counter/frequency inputs (minimum pulse duration 0.5msec, maximum pulse rate 1kHz-each, each input is tolerance to provide a 4 mA 'Wetting' current. One of these channels can measure frequencies up to 20Khz.. The counters/frequency inputs are suitable for precision flow measurement and leak detection etc. The micro can source a 12 Volts low noise instrumentation supply, this Micro supply is switched under program control, the timing can be configured by the user and linked with the logging cycle.

Expansion using standard DIN rail modules:-

- 2x 16 Channel Digital input module.
- 1x 8 Channel Digital output module.
- 1x 8 Channel Analogue input module
- 1x 8 Channel Analogue output channel.

1-5 additional
Standard modules



Power Supply Options

- Low cost Alkaline batteries composed of 3 D and 3 AA sized cells- the batteries can be replaced in the field and will supply the Micro for up to three years (depending on the duty).
- Solar supply with backup from either internal NiCad or Nickel Metal hydride battery. The solar panel is a small (16cmX14cm) device which is rated for a 7.5 Volt (nominal) with a ½ Watt maximum output, the unit charges the backup battery and is capable of handling a full month without solar input.
- A wide range (9-24V) DC supply, with an internal Nickel Metal Hydride or NiCad battery as backup.

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