



Pump Control System (PCSM)

Automation
Electronics

Overview

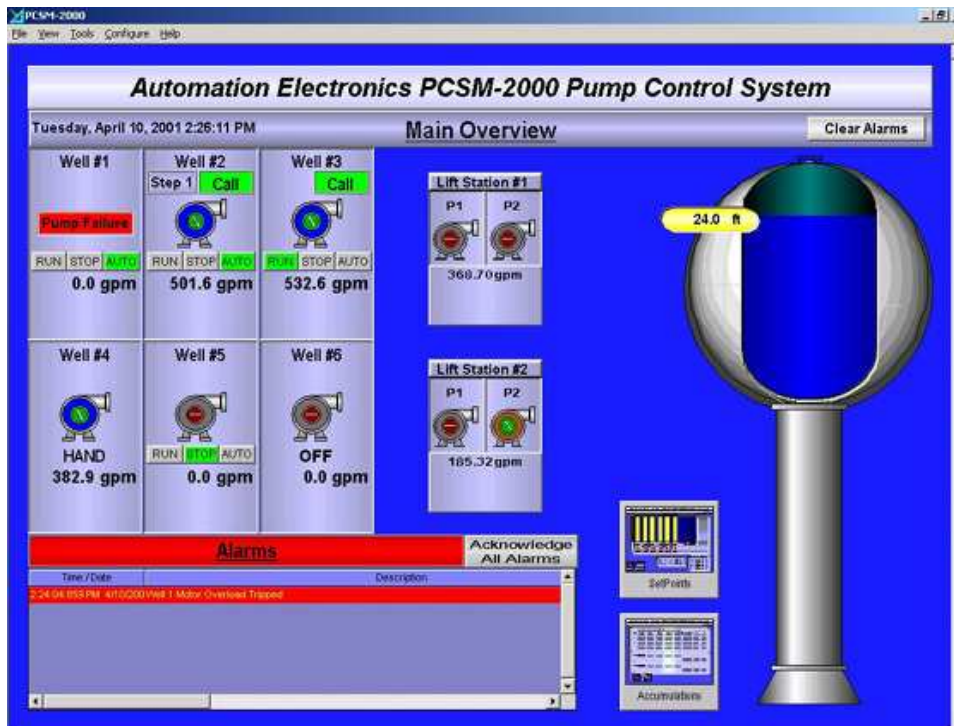


Figure 1: Overview Display

Automation and Electronics, Inc. PCSM-2000 (Pump Control System) is a low cost off-the-shelf package that has been designed to monitor and control small to medium sized Municipal Water Systems.

The PCSM-2000 system is designed around 3 major components. The personal computer PC based operator interface, the 608C master control unit, and SRTU (The Simple Remote Telemetry Unit).

The 608C master control unit is the heart of the system, and is designed with our industrially rated 608C embedded controller. This unit is programmed to perform all pump logic, and remote communications, and operates independent of the PC based operator interface. The master control unit will keep the water system operating even if the PC fails.

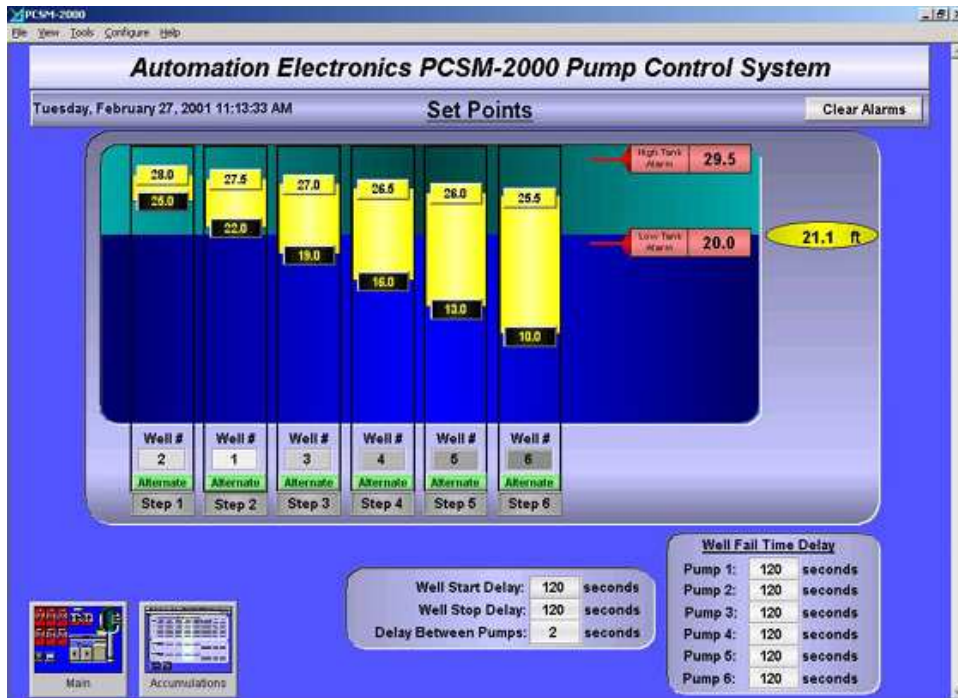


Figure 2: Set Point Display

The PC based operator interface is designed to operate on a low cost Microsoft® Windows® computer. The Windows user interface gives the operator a full graphic interface to the system. The operator can monitor and control a basic municipal water system by entering tank level set points, starting and stopping wells, setting pumping sequences, and monitoring flow totals. It is designed with a powerful 32-bit SCADA software package that has been pre-configured for this off-the-shelf application.

The third component of the PCSM-2000 system, the Simple Remote Telemetry Unit or SRTU, has been designed for use at wells, lift stations and tanks. It interfaces to the motor starter and flow meter to monitor the number of starts, report elapsed time, flow rate, and totals. The SRTU also has 2 on board control relays to start and stop pumps. It can be used with spread spectrum radios or conventional licensed radio links.

Combined with a printer, and an automatic alarm reporting telephone dialer (which is connected to the 608C master control unit), this off-the-shelf wireless system can be used to monitor and control up to 6 wells, 2 lift stations, and 2 tanks.

Features

Standard

- Simple pre-configured menu structure: This enables an operator to get "up and running" immediately.
- Separate Start/Stop set points for each well.
- Alarm / Report monitor screen: All data events are routed to this screen as a quick summary reference.
- Alarm Printer: Alarms are printed as they occur.

- cur with time and date stamp.
- Communication monitor screen: Useful for communication channel diagnostics
- Low power

Options

- Alarm Dialer: 8 channel automatic telephone dialer.
- Radio: VHF, UHF, 900 MHz spread spectrum, or 2.4 GHz spread spectrum. Radios are quoted by application.
- Modems: Dial-up or leased line

Specifications

Computer	600 MHz, 128 MB RAM, 10 GB Hard Drive, CD ROM, Windows ® NT, 17" color monitor.
Printers	
<i>Alarm printer:</i>	80 column 9 pin dot matrix.
<i>Report printer:</i>	For gallons pumped; today, month, year; number of starts; run time (all per well).
UPS	350 VA
Master control unit	608C intelligent controller, housed in 18" x 16" x 8" fiberglass enclosure.
