Industrial Automation

Puts You In Control

Application Note 114

Waterman Irrigation, Park Management Controller

HIGHLIGHTS

Great flexibility in size and functionality through the use of Linux based controllers

Local touch screen and central SCADA control of the system.

GSM/CDMA mobile phone communications

Radio modems with on board I/O allow for low cost control of small parks

INTRODUCTION

Control of the irrigation functions in local government parks has evolved to include many more monitoring functions because of the ever increasing water shortages. This meant that an opening was being created for a more industrial approach to this industry then has traditionally been the case. Combine this with a desire for more reliable equipment and the Waterman Irrigation Controller was born.

APPLICATION

In Western Australia all public parks are irrigated using a bore pump with associated pump control panel and an irrigation controller. We identified the duplications in this approach and created a combined pump control and solenoid controller using the Sixnet IPm range of controllers. This industrial approach to irrigation allows maximum flexibility in size and functionality. Add to this the addition of a GSM/CDMA modem connection and every controller can be communicated to from the moment it is installed. Dedicated Windows based software (Waterman Central), provides customers with easy access to their many parks from the comfort of their office. And the integral datalogging facility allows for better historical data which in turn helps to increase efficiency.

SCOPE

•Create an extremely user friendly irrigation controller
•Provide an unlimited amount of monitoring and control functions
•Allow for immediate access to a central control system
•Include a low cost wireless expansion of the control system
•Use standard communication protocols
•Provide mobile phone access for alarm(SMS) and activation
•Provide fully independent control with local data logging.

EQUIPMENT USED

•Sixnet IPm Linux based processor with local and remote I/O modules
•5.7” Matsushita touchscreen
•Pressure and level transmitters by GP:50
•Faget current transducers
•IA Multicom radio modem with on board I/O
•Wavecom GSM modem
•Full aluminium enclosure including metering, power distribution and pump control
•Waterman Weatherstation
•Insertion magnetic flowmeter

END RESULT

The most user friendly Park Management Controller on the market that is extremely robust, allows great temperature fluctuations and requires hardly any maintenance. It is also very easy to service with all equipment DIN rail mounted.