

Taking control

Irrigation consultant Philip York looks at irrigation controllers and control systems.

There is now a plethora of irrigation controllers on the market utilising either conventional electrical control or electronic encoder/decoder systems.

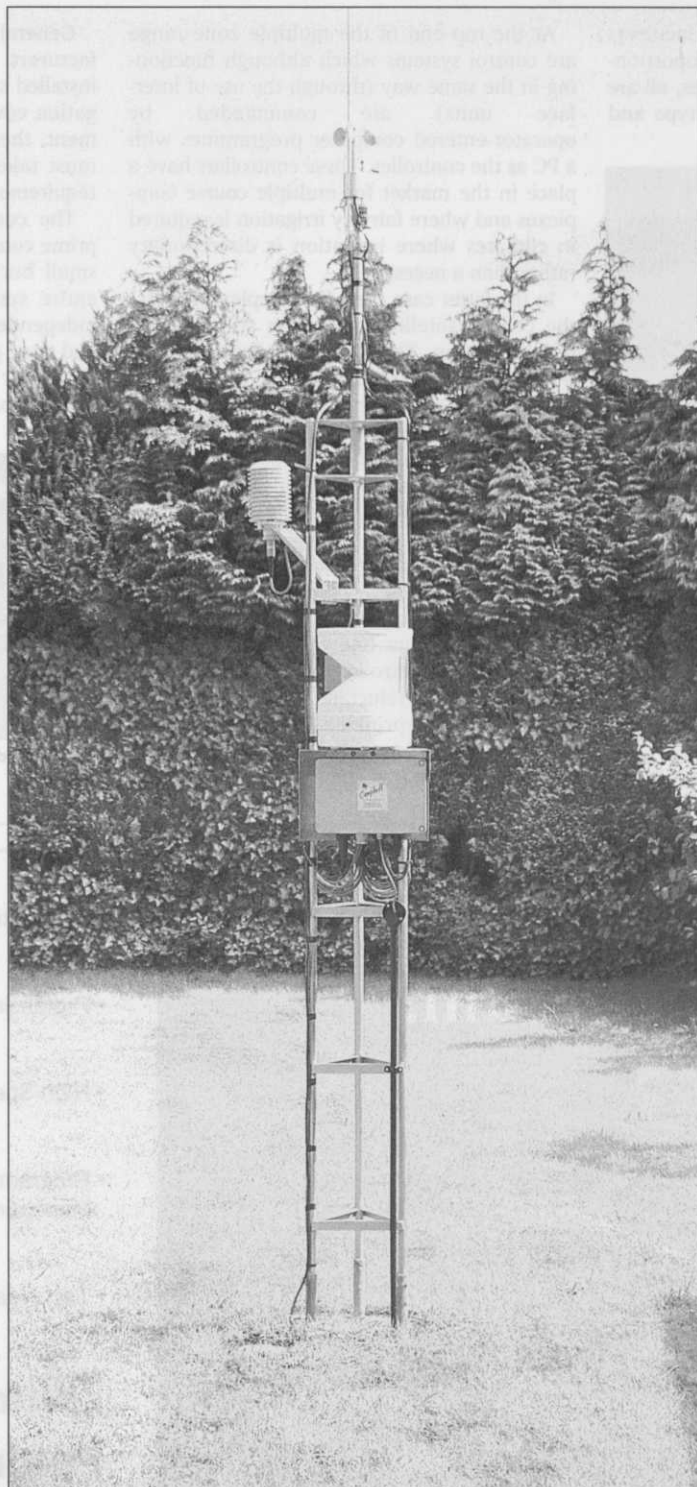
Whereas a little more than ten years ago virtually all controllers were of US origin from the major sprinkler manufacturers, and provided similar functions; today's range is much greater, the major sprinkler manufacturers have significantly increased their range and types of control systems on offer, added to which there are a number of manufacturers in the European Community who may, or may not, have other interests in the irrigation market.

Although the traditional type of controller still has its place in the market for the smaller landscape type systems, for the most part those controllers employed in golf have, to a greater or lesser extent, incorporated electronics with varying degrees of flexibility and sophistication.

Nowadays most of the controllers are electronic and operate the solenoids by sending an encoded signal to decoders located at the valves, this system enables the entire scheme to be controlled from one cable with 2 or 3 cores whereas the older electro-mechanical controller requires a minimum of a common wire to all valves and one cable to each valve.

The simplest form of controller is a single zone unit controlling a number of stations in sequence for operator set times, these can only be used where the total operating time to apply the required amount of water at each location is within the period of time allocated to complete the cycle, normally 10 hours, typically therefore being utilised where only 18 greens and tees require irrigation.

These single zone units will have varying degrees of flexibility,



The Toro Weatherstation for connection to the Toro HW8000 and LTC computer controller

Picture courtesy of Toro

eg 24 hour, 7 or 14 day time clocks, with 4 or more start times per day, station timing will be typically from 0-30 minutes (or more) in small or large increments, some will incorporate the provision to operate alternative pre-selected programmes eg greens only, tees only or greens and tees.

If the scope of the irrigation sys-

tem is larger, either incorporating additional areas, or maybe 27 or 36 holes, then, as there will be insufficient time to accomplish the irrigation programme, the number of zones will require to be increased in order that two or more stations can be operated independently but concurrently. The range of controllers in the market widens considerably with

IRRIGATION INFORMATION

■ Got a problem? Talk to the British Turf & Landscape Irrigation Association (BTLIA). "Anybody contemplating investing large sums in irrigation should, if they have doubts about design specifications or cost factors, talk to us," says BTLIA chairman Paul de Rham. "We are actively concerned that customers should obtain value for their money. That's why the Association's members drew up a detailed list of design and installation standards some years ago." If you would like a second opinion or advice, contact Paul through John Shildrick at the Association's Bingley office. Tel: 0535 273188.

■ Childwall Golf Club in Liverpool is using the clarified water overflow from the local sewage works, purifying it, then storing it in its irrigation holding tank.

■ Myerscough College in Bilsborrow, Preston, is running a turf irrigation course, starting April 11. The course runs over four separate week-long modules and the college says: "Many course attenders find they can quickly recoup the course fees as a result of subsequent maintenance, water and energy savings." Furthermore, completion of the course gains 'unit credits' towards the BIGGA Master Greenkeepers Certificate. For further details call David Halford on 0995 640611.

■ Clubs using a non-Toro system are being invited to replace old sprinklers around a green with examples of the latest Toro 700 Series pop-ups - free of charge. This offer from TIL Irrigation of Ringwood is limited to the first 50 applying. Tel: 0425 476261.

■ Hunter's UK and Ireland importers, Sports Ground Irrigation Co, are warning potential buyers that they will only honour five-year warranties if the goods were bought from an authorised dealer or installer. A list of these is available from the Market Harborough-based company, tel: 0858 463153.

Taking control

multi-zone controllers. Most manufacturers are offering them and they have proportionately more in-built or optional features, all are of the electronic encoder/decoder type and the price varies significantly.



A Watermation TW2 4-zone controller with remote radio activation
Picture courtesy of Watermation

At the top end of the multiple zone range are control systems which although functioning in the same way (through the use of interface units) are commanded by operator-entered computer programmes with a PC as the controller. These controllers have a place in the market for multiple course complexes and where fairway irrigation is required in climates where irrigation is discretionary rather than a necessity.

In the latter case (and for complex projects) the central/satellite concept is still the preferred solution. These range in sophistication from electro-mechanical systems easily understood and maintained through to computer run systems linked to a weather station with electronic satellites which can be programmed from the central, or in the field, and with two way communication and many optional features.

It is important to understand the way the UK market (and some EC countries) is structured, contractors being allied to one particular manufacturer's product line may not be able to offer the right controller for the project; similarly the trade is reluctant to incorporate one manufacturer's sprinklers and valves with another's controller, although technically this can be done, and is in some cases.

Generally, sprinklers from reputable manufacturers with a properly designed and installed system will provide the accurate irrigation coverage required by today's management, therefore the choice of control system must take greater priority in evaluating the requirements of the project.

The cost of a controller should not be a prime consideration as it is only one relatively small but very important component of the entire system, what it must do is offer the independent designer and the operator flexible and easy programming with the features necessary for the technical aspects of the project at the appropriate management levels.



A Rainbird Master II multizone controller with printer
Picture courtesy of Wright Rain Ltd

Reliable Irrigation A Pipe Dream?



If your irrigation system is working well, that's fine. If it isn't or if you are considering a system for the first time, perhaps you should be talking to Ocmis. We have a decade of experience in designing and installing automatic sprinkler systems that might just be the answer to your dreams.

Ocmis Irrigation (UK) Ltd., Martock, Somerset TA12 6BU. tel: (0460) 241939
Midlands Office tel: (0789) 414604 Northern Office tel: (0924) 453102

- Free Initial Consultation
- Professional Planning & Design
- High Specification Products
- Programmed Installation & Project Management
- Technical Support & Maintenance

Buckner

Putting The
Greenkeeper First

OCMIS

Design & Service
you can trust