Just as golf course maintenance has become more intricate over the years, so too have golf course irrigation systems. And that includes controllers.

“Customer friendliness” and “ease of use” are two adages that come to mind when discussing controllers. In regard to those two attributes, Brian Birdwell, business manager of golf irrigation for John Deere Irrigation, says the key is for manufacturers to make controllers intuitive so users don’t need to spend a lot of time thumbing through manuals to figure how to operate them.

“The more we get into it, the more we try to make them like computers,” Birdwell says. “Most superintendents are computer literate because they use them every day.”

Ease of use is integral so superintendents can build water schedules, among other things, Birdwell notes. Ease of use is also important when superintendents are troubleshooting controllers for problems.

While Dave Shoup, product manager of central controls for Hunter Irrigation, believes that superintendents collectively are computer savvy, he says that doesn’t mean that ease of use is not an issue. Hence, controller software needs to be easy to navigate.

“Microsoft Windows is a scary place to be for a lot of people,” Shoup says. “Virtually every person’s computer has its own environment, and all this stuff has to work and coexist with all of the other applications, devices and drivers out there.”

Shoup is a proponent of making controller software less busy.

Bruno Quanquin, Rain Bird’s product manager for golf controllers and wireless rotors, says it’s important to make face plates on in-field controllers more user friendly with larger LCD displays, including type and icons. Easy access to a controller’s components, such as a volt meter, is also important for troubleshooting. “Tidbits like this make it easy for the end-user,” Quanquin says.

Ease of installation is also important for the contractor’s sake, he adds. A contractor is concerned with easy access to inside a controller.
In regard to user friendliness, it's important to have an upgrade program for existing users of the company’s controllers, says Steve Snow, director of golf sales and service for Toro Golf Irrigation.

“For somebody who has had a 20-year-old control system, how do we make it as painless as possible for them to migrate to the new technology?” Snow asks.

Factors for a painless upgrade include ease of use and installation, adding new capabilities and fitting within a budget, Snow adds.

As control platforms age, they are harder to support, Snow points out. So it’s vital to have a “drop-in replacement” for the old platform that fits within the budget and takes advantage of new technology.

Water efficiency is also an important aspect of controller technology. Quanquin says central-control software acts as the brain in future product development to make the entire irrigation system function efficiently. “As we look at future water savings and efficiencies, we have to look at the whole system,” Quanquin adds.

Shoup believes controller technology will continue to develop to assist superintendents with water efficiency, especially with remote-control capabilities.

Birdwell says the goal from a controller standpoint is to “manage every drop of water in the most time-effective manner.”

While modern technology allows for a controller to operate one sprinkler at a time, Snow says water efficiency starts with the sprinkler head.

“You can have the smartest controller in the world, but water will be lost if the sprinkler is not applying water efficiently,” he adds.

New controller technology must be protected, so regular maintenance is important. Experts advise superintendents to look inside the controller box twice a year to assure its components are functioning properly. They should also make sure controllers are properly grounded and that electrical connections are secure. They should also make sure there are not bees’ or birds’ nests inside the controller box that could cause a short.

Quanquin points out that controller pedestals are often in the path of sprinklers. It’s vital to ensure the enclosures on the pedestals are working properly to protect the expensive electronics inside from water. “We tend to talk a lot about electronics and programming features with controllers,” Quanquin says. “But there’s a basic component that gets neglected — the enclosure.”

Mobile and wireless controllers are now on the scene. “That means superintendents can go anywhere on the course that has cell phone reception and control their irrigation systems with most of the commands they have on their desktop computers back in their offices.

David Algier, senior marketing manager for Toro Golf Irrigation, says wireless control is the in-thing among superintendents. More of them want the ability to turn things on and off with a handheld device, such as a cell phone or PDA.

“That’s coupled with Internet access so more superintendents can log in from home to look at what their irrigation systems are doing,” he adds.

Algier predicts the future will bring more of a “big-picture” approach to controller technology where there will be better integration with the pump station as well as sensors.

And you can bet that controller manufacturers and marketers will continue to listen to superintendents’ needs.

“It’s our role to innovate and simplify their worlds,” Algier says.