Irrigation auditing/scheduling software migrates to ‘the cloud’

Irrigation system managers can design systems anywhere there’s Wi-Fi

Dr. Guy Fipps, Texas A&M AgriLife Extension Service irrigation engineer, College Station, said new cloud-based irrigation auditing software can be accessed with practically any modern smartphone, tablet, laptop or desktop. (Texas A&M AgriLife Extension Service photo by Charles Swanson)

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COLLEGE STATION – A newly launched website will allow persons to audit an irrigation system completely from the field using mobile devices such as smart phones and tablets, according to a Texas A&M AgriLife Extension Service engineer.

“This is a major upgrade to the current software used for landscape irrigation auditing and producing of irrigation schedules,” said Dr. Guy Fipps, AgriLife Extension irrigation engineer, College Station.

An irrigation audit is part of a systematic process for saving water by measuring the sprinkler systems’ output and scheduling water applications that match the seasonal changes in weather and plant water use, Fipps said.

By law, anyone installing, maintaining or scheduling an irrigation system in Texas must be licensed by the Texas Commission on Environmental Quality, he said.

“However, auditing is not a part of the irrigation licenses,” Fipps said. “The EPA provides a WaterSense Auditor
Certification, which is administered in Texas by AgriLife Extension. To become an auditor in Texas, you must take AgriLife Extension’s auditing class and pass the certification exam."

Since the inception of the AgriLife Extension irrigation auditing training in the mid-1990s, more than 4,000 persons have taken the course.

“Besides licensed irrigators, about 40 percent of the students have been landscape professionals, city conservation personnel, homeowners and Master Gardeners, and most have gone on to become licensed irrigators, irrigation technicians and irrigation inspectors,” he said.

The training has evolved over the years, as has the software used to do the complicated and tedious calculations needed to coordinate multiple automatic irrigation controllers over a large area, Fipps said.

“Texas regulations now require a seasonal ET-based irrigation schedule be provided for all new landscape irrigation systems,” he said. “The software can also be used to produce this for new irrigation systems.”

The Texas Landscape Irrigation Auditing program began as simple software designed to run on personal computers. But as the training had to constantly evolve to meet the changing needs of Texas landscape and water-use restrictions, the software has had to expand its horizons as well, he said.

And the next logical step was to migrate to cloud-based application, Fipps said.

Cloud-based software refers to software designed to be used exclusively from a web browser such as Internet Explorer, Chrome or Firefox, said David Flahive, AgriLife Extension network manager and programmer, College Station. Computing becomes a service the user accesses rather than a program that is bought and loaded on a device such as a desktop or laptop.

Migrating to cloud-based software has advantages for both the programmer and the user, Flahive said. For the programmer, the application is easier to update and maintain across multiple computer platforms.

For the user, cloud-based means the software can be used anywhere there is web access and with practically any modern brand, make or model computing device, Flahive said. Moreover, screen views adapt to the device being used, whether it be an iPhone with a 2-by-3 inch screen or a large tablet or a desktop monitor.

Charles Swanson, AgriLife Extension irrigation specialist, College Station, listed other key highlights for auditors and licensed irrigators.

-Users can export the calculated station statistics and irrigation schedules created in the software to a spreadsheet or word processing document, allowing them to customize their audit reports and demonstrate professionalism to their clients.

-A great new tool added to the software is the ability to create spring, summer, fall and winter irrigation schedules using water-budget and season-adjustment tools.

Fipps said access to the site will only be granted to students who have completed the Landscape Irrigation Auditing training class. Eligible users can sign up for the software at http://lia.tamu.edu/update. After they enter their name at the site, an email is sent to them with their login and initial password.

However, one needn’t be a commercial irrigation manager to take the auditing class, he noted. The class is open to anyone who wants to learn how to better manage landscape irrigation. The next auditing class will be held in Dallas on Aug. 27-28; see http://irrigation.tamu.edu for details and registration information

By the end of August or earlier, Fipps and his colleagues plan to produce a similar cloud-irrigation site that will be homeowner friendly as part of the Water My Yard, http://WaterMyYard.org, program.