water sense
WATER MANAGEMENT SOLUTIONS
SUMMER 2012

UT, Austin Campus Prepares for the Future

The University of Texas at Austin started the process of gathering information on how to update the main campus irrigation system in 2008. Consulting with Water Management Inc., the University selected Calsense for their Central Control System for irrigation based on past performance, data collection ability, ease of use, and their factory-direct training and support.

In 2011, the University obtained funding for installing controllers, ET gages, rain buckets, and flow sensors. This new system has the ability to track gallon usage, detect breaks, measure usable rainfall, and track water evaporation from the landscape. During a recent rain storm the system measured almost an inch of usable rain and saved the campus approximately a week's worth of water. In addition, the University changed more than 18,000 sprinkler heads to water conservation nozzles. The anticipated water savings is estimated at 49 million gallons, an annual savings of $609,000 dollars with a 4 year ROI.

The upgrade process started in April 2011. The original goal was to replace 82 controllers, but was expanded to an additional 20. The controllers use LR (Local Radio) modems and operate in the UHF 450-470 MHz band. The main computer communicates first to a HUB via Ethernet and then radio out to all controllers, with no monthly charges.

PHONE
800.572.8608
FAX
760.438.2619
WEB
www.calsense.com

Markus Hogue, Program Coordinator (Left), John Burns, Landscape Services Manager (Center), & Luis Garza, Asst. Manager (Right)

Additional controllers can be easily installed since no other wiring other than power is required. Due to this flexibility, 80% of the manual systems were upgraded to Calsense, controlled from the central computer.

During the summer of 2011, Austin went through the worst drought recorded in the past sixty years. This caused the city to restrict irrigation system operation to one day per week. The Calsense product allowed the University to change all controllers to the city's once-a-week requirement with a few clicks of the mouse.One of the reasons Calsense was chosen was the data collection capability. Each controller has a Calsense flow sensor installed to detect breaks and to monitor monthly irrigation usage. Using the data, the University participated in a pilot program with the City of Austin. Working together they determined an annual budget per site based on usage and square footage. The budget, set at 15% less than normal due to the drought was entered directly into the Calsense system. Now the University is watering within a water budget instead of specific days and times. Properties have fewer restrictions on when to water as long as overall usage remains within the guideline.

Another aspect allowing the University to be more efficient is the alerting ability of the Calsense system. An estimated 75,000 people are on campus during the day and with this amount of traffic, irrigation problems occur. When a break happens, the system shuts down that zone and sends an alert message, then used as a work order for irrigation techs to fix. Since the beginning of March through mid-April, the alerting feature has saved the campus over two and half million gallons of water.

The University understands the limited water resource in Texas and more specifically the central Texas area. The improvements made are helping all, be good stewards of the environment as well as effective stewards of university resources. The University is eager to share information with other campuses and municipalities around the U.S. to help them improve their own irrigation systems.

Written by: Markus Hogue
Program Coordinator
817-229-1140