

GIS software: a true test of patience and pocketbook

Being a KRWA employee for about five months now, I've come to the realization that half the battle of being a mapping tech is troubleshooting and resolving issues with GIS software. I have also come to appreciate that during college I should have paid a little more attention to how my professors would troubleshoot a lot of similar problems for us students. Most of those problems, they said, were due to old computers trying to operate with advanced ArcView GIS software, but it was what we had at K-State and we made do.

In some instances it seems like what works one day will not work the next or what is working on Pete's or Jesse's computer will not work on mine. Luckily, there are three of us

working with ArcView for KRWA. It seems that one of us is always asking another what he did with a certain problem, or how he worked around that glitch. Frequently, we move from one computer to another because the software hangs up on any one of the machines.

At KRWA, Pete, Jesse and I all have some education or training with GIS technology. Having training is something I believe to be essential to even attempt any of this. But training can only take you so far in terms of being able to carry on the day-to-day functions of a GIS. The combination of

education, training and experience, along with a lot of frustration and money will get you to where you want to be with your project. I

KRWA staff members complain that "X" system doesn't have maps – yet KRWA staff are supposed to be helping the RWDs and cities on

All of the computers and other related equipment at KRWA are very up to date and I've found out that although new, fast computers do help a lot, Arcview is just very difficult. It's also a tricky software.

came into this job with only the education part of it. Thankfully, Pete had been working on GIS for three years or so and was already aware of several problems that can occur while mapping water and wastewater systems. Without any training, I wouldn't have known what he was talking about when he suggested how to resolve a problem.

a variety of projects. In some cases, it means carrying a metal locator and a pick ax to find waterline valves or manhole lids. A survey running on the KRWA homepage indicates that nearly 50% of the respondents say that their utility maps have not been updated since original construction. In some cases, that's 30 or more years ago!



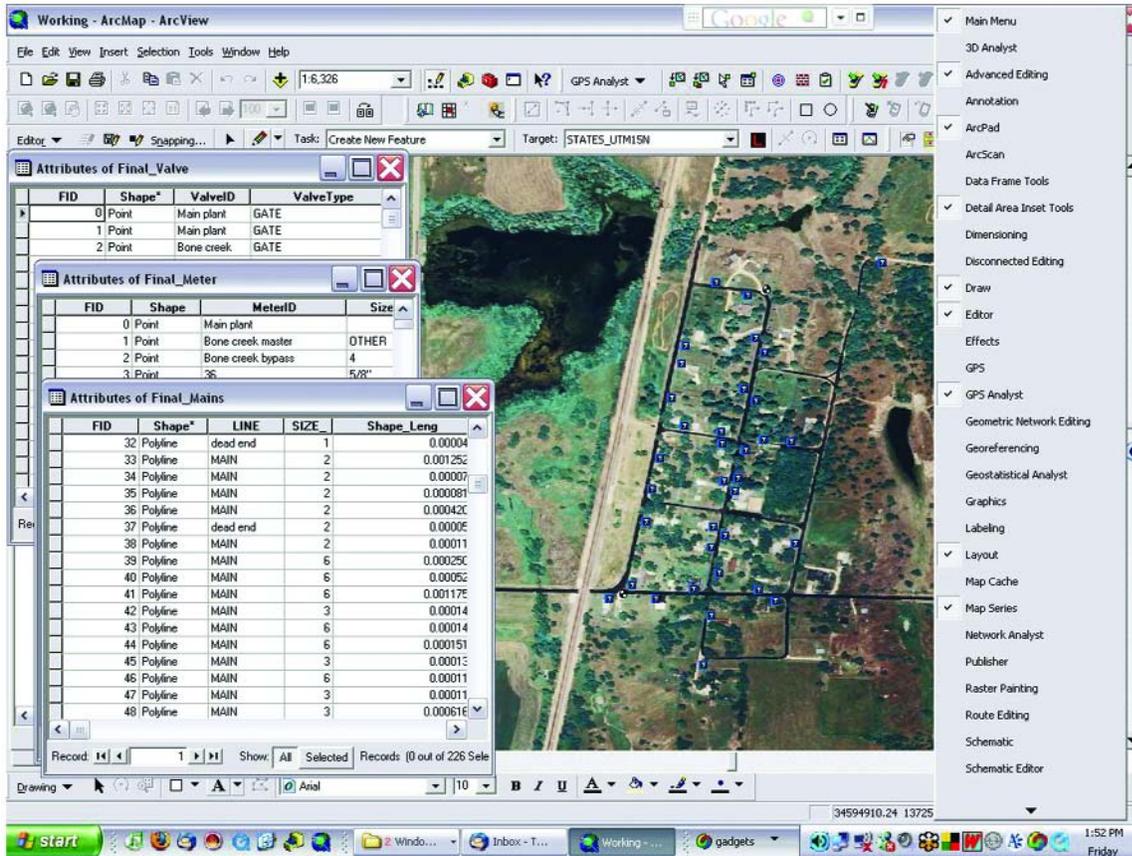
*Mark Thomas
GIS/GPS Mapping Tech*



Mark Thomas explains some of the ArcView software intricacies to Gladys Koch in the Nemaha County Appraiser's Office. These software complexities are the norm when producing system maps that can be used for many different management functions.

Thanks to a request from the Kansas Corporation Commission and other state agencies, KRWA agreed to pursue development of a mapping program starting in 2001. The ultimate goal of this effort was to address a long-realized need to help water and wastewater systems have better maps. I've heard other

Though it may sound like we are merely trying to influence a city or RWD out of developing a GIS just so that KRWA can earn their business, it is moreover the fact that KRWA has been through the struggles already – and we continue to be there. From my experience, I know it is not the best interest of



Utilizing GIS software is not as easy as navigating through Microsoft Windows XP. GIS software (like the ArcView shown in the photo at the left) has functionality that must be taught by trained personnel. The system shown is Crawford Consolidated RWD 1 and the small community of Farlington.



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any small to medium-sized city or RWD to invest the incredible amount of time and funds necessary for taking on something like this. If those staff members have time to learn all this and begin to be efficient at it, then some other work that they are presently doing is not going to get done! That may sound a bit harsh but some equipment vendors have also expressed the same concern to KRWA. Some people in systems will learn that their ambitions in this area may not be realistic.

As frustrating and challenging as I've portrayed the job of a mapping tech at KRWA, I can honestly say that KRWA staff enjoy what we do and are glad to be able to do it. Pete, Jessie and I came to KRWA from other jobs that didn't entail anything that we truly wanted to do in a career. We enjoy coming to work everyday and know what we are doing is beneficial to cities and rural water districts across the state. After using some original engineering maps to help generate

new digital GPS maps, I know how much the new maps mean to the systems when they receive them. I've seen the smiles on faces and the eagerness those people have to

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make more improvements and move to the digital era.

If your operator has all the information in his/her head about where things are located, it's probably past time to start a process to transfer that to a format that will be available to more than just one person. Give us a call so that KRWA can provide you with what lessons we've learned; there's no purpose in having any city or RWD making the same mistakes that we've already been through.

KRWA Annual Conference

The upcoming KRWA Annual Conference has a preconference session, "Development of GIS for Improved Digital Management

Services," that will answer many GIS questions. The day-long session is presented by some of the best GIS people in the region: Eileen Battles, Kansas Geological Survey; Chris Schmeissner, Jefferson County GIS Coordinator; and Luke Zakrzewski and Michael Jolley, of the GIS Workshop in Lincoln, Nebraska.

A conference registration form is on page 82 of this magazine. I hope to see you there.

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