Field Data Collection: People, Products, Procedures, and Processing

Situated about an hour south of Columbus, and about 45 minutes north of Cincinnati, Clinton County Ohio is a rapidly growing but still mostly rural county of about 41,000. Faced with the ever present need to collect new data and to update pre-existing data, the Clinton County GIS Department looked to some old technology, some new technology, and good old-fashioned hard work to answer our data needs.

Anything and everything is mappable. When one considers fieldwork, one usually jumps to the conclusion that we are referring to infrastructure mapping, such as manholes, fire hydrants, water meters, shutoff valves, etc. While those things are obviously very important (and we have worked with several municipalities in mapping those very things) the Clinton County GIS Department has focused its energies in a little different direction.

There have been many data layers that we have done some fieldwork with in mapping, but for the sake of this presentation we will focus on just three items; Township Stones, Driveway Culverts, and Addresses. We have found through a long and oftentimes-painful process of parcel edits and updates that township and county boundary lines can make things very "interesting", especially when a person lives in township "A" and learns that he actually lives in township "B". Knowing where those lines are (i.e. mapping the "Township Stones" as they are called) has become a very important part of our fieldwork. The second item we have worked on is in mapping driveway culverts. Everyone is required to get a permit and install his or her culvert according to rules set down from the County Engineer's Office. Enforcing these rules ensures that everyone is not only treated fairly, but that water flowing through the culverts and ditches is drained away from where it shouldn't be and *to* where it should be. The fact is, no one seems to care much about water…until it sits in their yard, floods their basement, and washes away their driveway. Mapping the locations of these culverts is very important. The third item in our discussion will be the "mapping" of property addresses. For many reasons, being able to locate an address quickly and accurately is becoming more and more important. The engineer's office is responsible for assigning addresses, and is done when the culvert for the driveway construction is completed, reviewed, and accepted.

The most important part in any project is the people involved. Coming from a background in teaching, I have tried to find college students willing to learn about GIS, and are able to do fieldwork. Although we were fortunate enough to have one student majoring in Geography, we have worked with many young people willing to give us a chance, and the results have been exemplary. Some of the equipment we have used includes a Toshiba Tablet PC, a Compaq iPAQ Pocket PC, a Kodak digital camera, and a Trimble GeoXT sub-meter GPS device. We spent about ½ a day learning about the theory behind using each of these devices for GIS Fieldwork / data collection, and about ½ a day actually out in the field testing and learning hands-on.

Collecting data is only half the battle; being able to process that collected data is the real secret to our success. Having a good, well thought out plan of attack, having

people that are interested and willing to learn, and having good tools to work with makes fieldwork a rewarding and beneficial challenge to any GIS Program. My presentation will go into detail about what makes for successful fieldwork.