Herding Cats! GIS Coordination Efforts Within An Enterprise System
By Tracy Jenee' Moy

Abstract
Can you imagine trying to herd cats? Just as cats sometimes have a mindset of their own, so do most of the GIS users in our organization and probably yours!

The Arkansas Game & Fish Commission is responsible for managing the fish and wildlife resources of the state. The GIS users of the agency represent professionals from many disciplines. In addition to the varied scope of work carried out at the commission, users are spread geographically across the entire state. The level of technical mastery of these users also varies greatly.

These factors and others contribute toward the increasing difficulty of managing, tracking and coordinating GIS projects within the agency. This paper will serve as a discussion of the issues associated with coordination efforts and will offer suggestions on how to deal with the issues that occur in a large enterprise setting.

Introduction
A geographic information system (GIS) may become part of an organization through careful planning or by accident. Either way it will exist as a centralized system, a decentralized system, or some combination of both. In a centralized system the components will reside in one department or physical location of the organization. Clients request a project, work is completed by the departmental staff and the final product is delivered back to the client. Even though the project may be complex in nature, this type of workflow is simpler in design and project tracking can be simple.

In a decentralized system components may reside in different geographic locations or in different departments within an organization. Many individuals may be working simultaneously on many different projects. Project tracking in this type of system can be very challenging for an organization. The GIS in some organizations may exist as a combination of a centralized and decentralized system. This combination best describes the type of system that exists at the Arkansas Game & Fish Commission (AGFC).

Background of GIS at Arkansas Game & Fish Commission
During the 1980's GIS was being used at AGFC by only one division. Individuals in the Wildlife Management Division were realizing the potential that GIS would have for managing habitat. One workstation was purchased and one person was designated to carry out GIS work for the division within the agency. Over time other divisions began to see the value of GIS. In 1998, the administration approved the hiring of a GIS coordinator that would serve the entire agency.

Project tracking at this stage was no problem with only two people performing GIS activities within the agency. That soon changed as the program expanded to include user training, software distribution, and a distributed network of data over a large geographic region and multiple divisions of the agency. Even though users were educated about

metadata and the importance of project reporting to the coordinator, most users ignored the policy that was meant to insure the coordination of GIS work.

Project Tracking Issues
The AGFC GIS program currently includes twelve redundant servers spread over the state on a wide area network. Connected to these servers are over one hundred GIS users. Some users utilized a single seat license for ArcView due to the fact that they work out in the field. Most users utilize one of thirty floating license for ArcView and routinely perform GIS work from their local office. The GIS staff now includes five full-time employees and two part-time employees who are responsible for supporting the GIS needs within the agency. Approximately one hundred of the six hundred employees are GIS users or clients of GIS products.

It was becoming increasingly difficult to justify expenditures for additional resources with no evidence of how the GIS program is being used. Products from the program appear everywhere. Almost every report and every presentation that was delivered contained GIS products, yet the agency's GIS staff had little knowledge of any work beyond their own.

Solutions
Over the last several years, many attempts have been made to encourage project reporting. Project reporting forms were available from the beginning on the agency Intranet, and on each of the servers along with a policy that required staff to report GIS activities.

A small number of people did think this was unfair and did not follow the directive for that reason. Others had trouble deciding which projects to report and assumed everything they did was insignificant and did not need to be reported. Most users have good intentions, but just never get around to completing the paperwork.

Since the agency-wide GIS began at AGFC, there has been a steering committee. The GIS Steering Committee includes staff members representing all divisions, all geographic regions of the state, and all levels of users.

Although members have come and gone over the years, the charge of the group has remained the same. The group meets about four times a year to assist the GIS coordinator in setting priorities and to discuss problems related to GIS and identify solutions. Over the past year, with no duress from the coordinator, the committee identified the lack of project reporting as one of the programs most critical issues.

The GIS steering committee and the GIS staff met to discuss possible solutions to the problem. They were in agreement that very few users purposely fail to report projects. The agency has a policy in place that required users to report projects, a user friendly form is available to users, and users are educated during training sessions of the importance of reporting and coordinating projects. Yet, most still failed to report any GIS work that is being completed.

The committee came to the conclusion that the only way to insure reporting will be to incorporate some type of script that initiates upon the activation of the software. The script should be installed on all computers that included GIS software. Ideally, the script would force the users to complete some minimal level of information before being allowed to access the program. The committee felt this was the best way to insure the collection of project information and unanimously agreed that this was the best solution.

One cannot appreciate the value of this decision. The fact that this committee finally realized the value that project reporting could bring was a huge breakthrough. One cannot really fix a problem until you realize you have a problem. The committee saw the problem, understood why it was a problem and was now ready to look for solutions.

An investigation for the appropriate solution began. After an exhausting search for an off the shelf product that would deliver the desired results, the group concluded that it would be best to build a custom application. The committee created a conceptual design and identified fields that would need to exist. The program would need to be very simple with minimal interaction with the users. Most of the metadata type information could be captured from the program behind the scenes and would be transparent to the users.

Conclusion
It is our hope that this project-tracking system along with continued user education will alleviate most of our project-tracking issues. The project-tracking program required programming skills beyond that of our current staff. We have outsourced the development of the program to the Center for Advanced Spatial Technology (CAST).

It has been my experience that most users within our organization simply do not realize the importance of tracking the development of GIS projects and data. Even members of the GIS staff and the GIS steering committee have at one time or another complained about how project reporting would add extra work to their already weighted workloads. But, over time they have come to understand the value and importance of project tracking within the enterprise system.

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Tracy Jenee' Moy
Chief, GIS Division
Arkansas Game & Fish Commission
2 Natural Resources Dr.
Little Rock, AR 72205
Phone (501) 223-6338
Fax   (501) 223-6419
E-mail tjmoy@agfc.state.ar.us