



Establishing an ArcIMS Website in a Zoo Setting

Written by: Tod Chee

**Zoological Society of San
Diego**



Abstract

The Zoological Society of San Diego's GIS staff needed to provide data access to non-GIS users. Moving from printed maps to ArcIMS web sites allowed employees to fully utilize the benefits of the GIS data. The implementation of HTML-based web sites was conceived in order to increase data availability and reduce the workload on the GIS staff. Web sites were built for the San Diego Zoo, and the San Diego Zoo's Wild Animal Park, based on the needs of the various departments. Multiple sites have resulted in increased efficiency in daily operations, as well as reduced workload in GIS services requests.



Justify The Websites

- ★ Share the data to get it's maximum value
- ★ Reduce use of printed materials
- ★ Reduce dependency on GIS staff for information
- ★ Common resource for all departments



The First Step

- ◆ Get the desired system



1. IIS 5.0 Web Server
2. Apache Tomcat 4.1 Servlet Engine



The Second Step

- ★ Design the websites around the end-user's needs



1. Redline Tool based on Bryan Baker's ArcScript
2. Table Of Contents based on David Bollinger's ArcScript
3. HTML vs JAVA



Redline Tool

- ◆ Used more than any other tool
- ◆ Requested by departments such as Construction, Architecture, Development, and Horticulture



Table of Contents

- ◆ Keeps data accessible and organized
- ◆ Contains folders and sub-folders, some specific to certain departments



HTML over JAVA

- ★ No extra viewer required
- ★ Easily created and customized
- ★ More common
- ★ Visual Aesthetic



The Third Step

- ◆ Organizing and Maintenance

1. Shapefiles are used for simplicity
2. Administrator given remote access



Why Shapefiles?

- ★ Staff can easily e-mail files from any location at any time
- ★ Individual files are easily stored and updated



Why Remote Access?

- ★ Allows administrator to take on wider range of GIS projects by reducing travel time
- ★ With a remote management window, and the existing network, shapefiles can be updated without stopping the services



The Final Step

- ★ Providing the websites to the departments and reaping the rewards



Who Uses it

- ★ **Construction and Maintenance** no longer sorts through a library of drawings on a daily basis
- ★ **Development** catalogs the location of the donor recognition plaques
- ★ **Security** standardized their code systems and locations based on the data for incident reports



Who Uses it (cont)

- ★ **Architecture** uses the websites for planning, drawing, and access to facility data
- ★ **Animal Collections** analyzes potential animal movements and exhibit areas
- ★ **Horticulture** maintains a record of plants and irrigation available on the websites



Outcomes

- + Popularity has led to 50 layers being added in 2006
- + GIS Staff experienced significant drop in map requests
- + Increased productivity
- GIS Staff had to spend more time than expected training new users



Future

Due to the need for increased functionality, and a change in ESRI's product focus, the Zoological Society of San Diego plans to move toward ArcGIS Server



Acknowledgements

- ★ Zoological Society of San Diego
- ★ San Diego Zoo Construction and Maintenance, Bruce Thurston
- ★ Wild Animal Park Horticulture, Mark Huston and Cary Sharp
- ★ Steve McCarthy
- ★ ESRI
- ★ David Bollinger and Bryan Baker
- ★ Pictures provided by the Zoological Society of San Diego's Visual Services Department, Photos are the property of the Zoological Society of San Diego



Thank You!

Tod Chee
GIS Specialist



San Diego Zoo
PO Box 120551
San Diego, California, 92112-0551
(619) 231-1515

