Task 27

Pennsylvania Spatial Data Access

Final Report

1997/1998

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Introduction

The Pennsylvania Spatial Data Access (PASDA) has undergone a number of significant changes and improvements in its first full year of operation. Most importantly, PASDA has evolved from prototype or pilot project status to an expected and reliable service to the Commonwealth of Pennsylvania.

The improvements to the PASDA system fall under three general categories: Technical and data enhancements; metadata efforts; and administrative/planning. The most significant technical enhancements include the adaptation of the *Isite* suite of software to enhance indexing; the installation of Apache Web Server; and incorporation of the SQL query function. Metadata efforts have resulted in the first "outside" metadata being included in PASDA. Data sets from the Southwest Regional Planning Commission, the Delaware Valley Regional Planning Commission, and the SEDA Council of Governments have been documented and the metadata made available on PASDA. Efforts at the administrative level have included the active promotion of PASDA through a number of presentations to local, regional, national, and international organizations.

The growing value of PASDA to the Commonwealth can be seen in the rising number of users over the past year. In the last few months of 1997, PASDA was consistently receiving 30,000 to 40,000 requests per day. From January through June, PASDA topped 100,000 requests and consistently received over 70,000 requests per month.

A review of PASDA was held at Penn State in April 1998 to evaluate the system interface, available data, and metadata. This evaluation will serve as the basis for initiatives in the next year to improve PASDA. Future efforts will include a more intuitive interface, standardized data, and increased outreach efforts to obtain and/or document more data and increase awareness about PASDA and GIS in Pennsylvania.

Technical and Data Enhancements

- Isite, which allows the search and retrieval of information/data in complex database systems, was completely integrated and made fully functional

- Primary and secondary FTP sites were created to assist users in obtaining data for download. The secondary site, located on the Deasy Lab server, serves as a back-up system for PASDA's primary FTP site. This will enable users to have two choices for downloading data and will ensure that PASDA's data is available even if technical problems arise or during high traffic times

- A PASDA statistics site was created

- New coverages of Pennsylvania's Glacial Extents and Physiographic Provinces (1:100,000 and 1:500,000) and several DEMs clipped by county

- The FTP site was reorganized to allow users to identify data by date added or view data alphabetically by category

- Superseded data was archived

- 9000+ polygon small watersheds coverage was added to site

- New contact information, e-mail groups were created

- A streamlined PASDA homepage was created and made active

- An Open Data/Open Format section for PASDA is under development

- Guest book installed

- Counter created

- New Web Server software installed to improve functionality and statistics gathering

- Updated Data Discovery section

- Placed all SQL query function on separate server to increase the search and retrieval speed of the main server that handles the web interface

- Installed ArcView Internet Map Server and experimented with PASDA data using the new software

- Developed additional keyword searching mechanism

- A CD-ROM of PASDA data (DEMs) was created for the PA GIS Conference.

- Uploaded state-wide coverage of networked streams

- Added enhanced 104 watersheds coverage attributed with watershed names and codes

- Uploaded state-wide coverage of soils

- Added state-wide coverages of urban areas

- Added state-wide school district boundaries

- County wide soils were uploaded from the State Soil Geographic database (STATSGO)

- School districts by county were added

- Urban areas by county

- Terrabyte images clipped by county

- New DRGs which were clipped to remove map edges

- Seven new DEMs added

- Uploaded Terrabyte Explorer Images

Metadata

- DOQ metadata from Indiana University of Pennsylvania added January 16, 1998

- Metadata was completed for the Pennsylvania Southwest Regional Planning Commission and added to site on February 3, 1998

- Metadata for Pennsylvania floodplains was added January 14, 1998

- County-level metadata for Pennsylvania surface geology was added in early January 1998

- SEDA-COG metadata was completed and sent for review February, 4 1998

- Metadata was created for data on the PA Explorer and placed on PASDA

- Metadata for SEDA-COG completed and made available

- Chris Pfieffer visited the Delaware Valley Regional Planning Commission and documented their data

- 35 Coverages from Southwest Regional Planning Commission were added

- Network streams metadata created

- Bureau of Mining and Reclamation metadata created

- Surface Geology metadata created

- Floodplains metadata created

- Updated DOQ metadata—county and quarter quads

- University Libraries metadata person trained in XML metadata creation. This process will eliminate duplicate information and increase storage capacity

- Developed new Terrabyte metadata

- Updated DRG metadata

- Smallsheds metadata revised and put in XML

- Converted network streams to XML

- Developing metadata needs assessment for Centre Council of Governments

- Working with DVRPC to integrate new ISO metadata standard

Administrative (meetings, presentations, etc.)

- 12/14/98
PASDA presentation for representatives of New York's utilities sector

- 01/15/98
PASDA presentation for Chesapeake Bay Program

- 1/20/98

Participants: Todd Bacastow, Maurie Kelly, David Dibiase, Melissa Lamont, Jason Cupp (PASDA Webmaster), Mike Burns (CAC rep)

This meeting was held to discuss issues and future needs related to PASDA and to outline plans related to compiling a final report for the DEP

- 01/28/98
Participants: Todd Bacastow, Maurie Kelly, Nancy Eaton, Sally Kalin

An infomational/planning meeting was held with the Dean of the University Libraries, Nancy Eaton, and Sally Kalin to discuss the library's future role in the PASDA effort. Issues discussed included equipment, personnel, and collection development efforts related to spatial data

- 01/29/98
Participants: Maurie Kelly, Jason Cupp, Chris Pfieffer (PASDA metadata contact)

This meeting was held to develop a plan for organizing the PASDA site in a more systematic manner and to discuss future needs. Current unfinished PASDA initiatives were discussed and a plan/timeline was outlined for completing these efforts. Some of issues discussed include:

- Creating metadata for datasets currently residing on PASDA without metadata
- Documenting scripts
- Organizing files/file structures
- Developing a more cohesive structure for PASDA's various pages
- Managing and providing use statistics on a monthly, weekly, and annual basis
- Writing monthly reports on participant activity during the previous month
- New contacts for obtaining data/metadata
- Scheduling visits to contact organizations

- 02/03/98
Participants: Maurie Kelly, Jason Cupp

A new series of graphics and pages were discussed for the site. These streamlined graphics and pages will increase PASDA usability and functionality. An area where test pages could be viewed and tested was created on the server. A glossary and FAQ section are currently being created as a result

- 02/12/98
Participants: Todd Bacastow, Tom Sweet, Maurie Kelly

Future PASDA efforts were discussed including increasing PASDA visibility and outreach and additional datasets

- 02/25/98
Participants: Todd Bacastow, Kenwood Giffhorn, Maurie Kelly

The objective of this meeting is to discuss PASDA's current and future needs

- 2/27/98
Participants: Todd Bacastow, Debora Cheney (University Libraries), Sally Kalin, Maurie Kelly, Bonnie Mckewan (University Libraries)

Discussed library's future role in PASDA development

- 03/11/98
Participants: Marie Bednar, Judy Hewes, Sally Kalin (all reps from University Libraries), Todd Bacastow, Maurie Kelly

- 03/30/98
Participants: Todd Bacastow/Maurie Kelly attended presentation by Rick Day at the University of Pittsburgh at Johnstown

- Move of Ortelius--the PASDA server from University Libraries to Center for Academic Computing. This move increased security and improved maintenance

- 04/14/98
Presented a brief description of the PASDA project to the 21st Century Environment Commission in Harrisburg. Planned a PASDA evaluation meeting for April

- 04/17/98
A review of PASDA was held at the Penn Stater Conference Center. This meeting involved a discussion of PASDA capabilities, format, and functionality

- 04/21/98
Chris Pfieffer attended a meeting of the Centre Region Council of Governments Technical Group. Chris attended as the PASDA representative to discuss a common format and standard for metadata. The group is now interested in using the PASDA metamaker to create their own metadata and in possibly putting some of their data on PASDA

- 04/23/98
Todd Bacastow did a PASDA presentation in Harrisburg on April 23rd

- 04/23/98-04/24/98
Maurie Kelly attended the Mid Atlantic Region Conference of the American Water Resources Association to do a presentation on PASDA

- 05/08/98

Kenwood Giffhorn and Todd Bacastow presented at the Africa Tele Comm meeting in South Africa in Johannesburg South Africa

- 05/08/98-05/09/98
Maurie Kelly met with represenatives of the Philadelphia Planning Commission and Drexel University Library and Information Science Program

- 05/14/98-05/15/98
Maurie Kelly and Chris Pfieffer presented at two sessions at the Pennsylvania GIS Conference

- 05/21/98
Several ERRI staff visited DEP with Maurie Kelly to discuss the Penn system

- 05/27/98
Todd Bacastow, Maurie Kelly, and Chris Pfieffer attended the meeting of the Centre Region Council of Governments Technical Group to continue discussions on the use of PASDA to create metadata

- 06/15/98
Meeting to discuss PASDA and other initiatives at Pattee Library; Participants: Todd Bacastow, Debora Cheney, Sally Kalin, Maurie Kelly

- 06/17/98
Finished PASDA article for Business Geographics

- 06/19/98
Wrote article for the Association of American Geographers Cartography Specialty Group publication

- 06/20/98
Developed initial plan for PASDA exhibit for Agricultural Progress Days

- 06/25/98-06/26/98
GIS Coordination meeting in Harrisburg June 25th and 26th to discuss PASDA and clearinghouse