

Propagation of FGDC-Endorsed Metadata Standards across the Great Lakes Basin

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Interim Report

Category 1 – 2007

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Organization:

Remote Sensing & Geographic Information Science Research and Outreach Services
(RS&GIS)

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Project Narrative:

This project addresses training and outreach assistance for spreading metadata knowledge across the Great Lakes Basin. It consists of three tasks: (A) creation of teaching materials, (B) hands-on training, and (C) distribution via the internet. To date, RS&GIS has created teaching materials and presented hands-on training sessions at two of the four promised training sessions. Modifications of these teaching materials have been made subsequent to each training session, according to the feedback provided by workshop participants. Final modifications to these teaching materials will be made after the last presentation. After those modifications, all instructional materials will be converted to a dynamic format (Adobe Acrobat Connect Professional), and be uploaded to the internet. These materials will be directly linked to the FGDC website.

Metadata training in all RS&GIS training sessions targeted two FGDC-endorsed metadata standards: (1) the Content Standard for Digital Geospatial Metadata (FGDC-STD-001-1998) and (2) the Content Standard for Digital Orthoimagery (FGDC-STD-008-1999). The targeted audiences were geospatial data producers and consumers around the Great Lakes region from all backgrounds, including academia, government, business, and not-for-profits. Training sessions are advertised to the public and offered in association with geospatial technical conferences and a university initiative. Additional detail on each of the two completed training sessions is provided below.

Workshops Completed

Two of the four training sessions that RS&GIS committed to conduct have been completed. All presentations were created by RS&GIS staff members Justin Booth and Robert Goodwin, and all presentations were given by Mr. Booth. On a regular basis, both Mr. Booth and Mr. Goodwin are responsible for ensuring that FGDC-compliant metadata is included with various RS&GIS geospatial products, including large vector (e.g., LU/LC classifications) and raster (e.g., orthoimagery) datasets. Mr. Booth also leads the Geospatial Information Support Team (GIS_t) of Michigan State University and Mr. Goodwin advises and facilitates aerial orthoimagery acquisition for municipal, county, and state organizations. Their practical experience with troubleshooting metadata issues provided valuable insight in preparation of education materials and presentations.

In general, all workshop attendees were versed in the manipulation of geospatial data, either as GIS analysts or Image Processing specialists. As such, all were generally familiar with basic metadata fields but most were uncertain of the differences between standards (e.g., ISO, FGDC), how to identify the correct FGDC-endorsed standard for their work, and how to create, edit, and validate their metadata to FGDC-endorsed standards. In addition, no participants knew how to publish and harvest their metadata through a metadata clearinghouse. Some were familiar with searching for geospatial data through metadata clearinghouses. Participant feedback was provided via informal discussions and via a formal written survey. The written survey was administered during the second workshop and will be used for obtaining feedback in all subsequent workshops.

1. Metadata Training at MiCAMP

The Michigan Counties Association of Mapping Professionals (MiCAMP) Annual GIS Conference, Boyne Mountain Resort, MI, 12-14 September 2007.

Title: Getting the Most Out of Metadata

Total: 35 attendees, all from county government agencies

Date: 13 September 2007

Duration: 1.5 hour

Venue: Meeting room at conference hotel (no computers)

Means of instruction: Lecture with exercises on paper

Types of Exercises: Two different exercises. The first exercise was designed to familiarize the participants with the organization of FGDC-endorsed metadata standards, and was administered early in the presentation. Participants were given FGDC-compliant hydrography metadata from the National Hydrography Dataset (NHD) and asked a series of questions that required them to search through the metadata fields. The second exercise was designed to give participants experience on writing thorough, meaningful metadata. It involved filling in a series of metadata fields for a specific product that was handed out.

2. Metadata Training at AAG East Lakes Meeting

The Association of American Geographers East Lakes Region Annual Meeting, Michigan State University, East Lansing, MI, 19-20 October 2007.

Title: Practical Strategies for Sharing Your Data: FGDC Metadata Standards

Total: 9 attendees, geographers from MI and OH

Date: 19 October 2007

Duration: 2 hours

Venue: The William R. Enslin Computer Training Lab, RS&GIS, Michigan State University.

Means of instruction: Lecture with exercises on paper and computer.

Types of Exercises: Four different exercises, two on paper, two on computer. The first two exercises were the same as those administered in the previous workshop session at MiCAMP (see above). The third exercise was a hands-on computer exercise designed to familiarize participants with the metadata editing capabilities of ArcCatalog. In particular, this exercise introduced participants to methods for converting metadata (i.e., formats and standards), identifying required fields, and creating and editing FGDC-compliant metadata. The fourth exercise was a hands-on computer exercise designed to familiarize participants with one of the online free resources for validating the metadata that they create.

Specifically, participants were given an incomplete metadata set which they were to validate with the USGS metaparser (MP) program. Those fields which were incomplete were then to be filled in using a metadata editor (e.g., in ArcCatalog) and validated a second time with MP.

Additional Presentation

In addition to the above mentioned workshops, these metadata training materials were also presented in a graduate geography course at Michigan State University titled *GIS in Government and Business*. Specifically, this metadata training was given in a one-hour lecture on 24 October 2007.

Future Work

Two additional workshops are planned for spring 2008 through the GIST initiative at Michigan State University (early spring 2008; originally scheduled for fall 2007) and the Improving Michigan's Access to Geographic Information Networks (IMAGIN) Annual Meeting in Dearborn, MI (May 2008). Teaching materials will then be converted into dynamic media and uploaded to the internet in late spring 2008.

Feedback

It has been a pleasure working with NSDI staff on this Cooperative Agreement Program (CAP). We will provide feedback on CAP at the conclusion of the project.