

DIGITAL MAPPING TECHNIQUES 2014

DMT 2014

The following was presented at DMT'14 (June 1-4, 2014 - Delaware Geological Survey, Newark, DE)

University of Delaware

The contents of this document are provisional

University of Delaware: Perkins Student Center

> See Presentations and Proceedings from the DMT Meetings (1997-2014) http://ngmdb.usgs.gov/info/dmt/



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Into the Final Frontier

Until recently, the Alaska Division of Geological & Geophysical surveys has not had existing data or map standards. Implementing new standards and workflows can be an intimidating and frustrating process for those who are not already "in the know". DGGS offers special training sessions for our geologists and GIS users to make the transition from "do whatever works" to using the NCGMP09 standard. Training sessions highlight the benefits of using a standard, provide a solid background of the geodatabase design, and explain the details of creating, loading, and editing data in NCGMP09 format. Sessions are designed to be fun, engaging, and interactive. They also include hands-on activities, practice data sets, and helpful resources.

Prepare to Engage.

Planning ahead and being prepared are important parts of hosting a successful training session. I sent out a "save the date" email 3 weeks before the scheduled training. This allowed colleges to schedual other events without conflicting with training sessions. This greatly increased attendance. The emails I send out to our division are purposely designed to be eye catching, funny, and a little kooky! People are more likely to read emails that are entertaining and fun and, at the very least, not dread the upcoming training.

A week prior to the training session, I sent out yet another reminder. This second email gave people a more detailed description about what material would be covered. Also by this time, the division director and section chiefs had made NCGMP09 mandatory (resistance is futile). In this second email I asked people to RSVP. An accurate headcount allowed me to better prepare and organize the practice data for the hands-on exercises. I also coordinated with the IT staff at this time to make sure that the wireless network in the conference room would be able to handle the manypeople accessing ArcMap on laptops during the training.



Second training reminder. Also designed to be fun and entertaining, it gives a brief description of what will be covered and requests people to RSVP.



"Save the date" reminder card. Because, who wouldn't totally LQVE some GIS training? I found the picture online and edited the text using Adobe Illustrator.

To save time during the training session, I prepared personalized practice data for use suring the exercises. For each participant, I created a folder on the shared network. Each folder had a simplified NCGMP09 geodatabase. Each geodatabase had part of the GeologicMap feature dataset with three feature classes. The MapUnitPolys featureclass is blank to demonstrate creating new data in the NCGMP09 format. The Orientation Points feature class is blank to demonstrate loading existing data. The ContactsAndFaults feature class has four pre-existing lines with complete NCGMP09 attributes and was used to demonstrate how to choose FGDC symbols. Each folder also contained a shapefile of orientation This was also used in the demonstration about loading existing data.

Abraham
 Standards_training_NCGMP09.gdb
 GeologicMap
 ContactsAndFaults
 MapUnitPolys
 OrientationPoints
 Ioad_orientation_points.shp

Each participant recieved their own folder with practice data.

Training_with_Trish

🖃 🚞 Standards

10 A 10

Stardate: NCGMP09 to boldy go where no standard has gone before

Patricia E. Gallagher patricia.gallagher@alaska.edu



Make it so

I started off the training session with something fun - a little competition. Whoever could tell me what the acronyms NCGMP and FGDC stood for got a fun prize. It's amazing how fast a room of professional scientists get excited about the prospect of a free candy bar!

My presentation started by answering the question: Why do we want to standardize? It's always helpful to know the reasoning behind a large decision, such as moving to a new standard (slide 1). Then I introduced NCGMP09. The acronym itself is quite intimidating, but the concept is generally simple (slide 2). Next, I handed everyone a printed out copy of the "NCGMP09 Bible". Most people found having a hard copy available during training to be very useful. I also included a link to its location on our network so that people could use the digital version if, for example, they wanted to look up tables by searching for a single word (slide 3). The next slide conveyed the concept that NCGMP09 is a geodatabase similar to what they are already using – but it contains standardized elements (slide 4).

A large part of getting to know NCGMP09 is figuring out which tables (and feature classes) are required, which varies greatly depending on the project. I created some guidelines for DGGS then and walked participants though examples of what fields are required, as needed, or could left blank (slides 5 and 6). To finish the NCGMP09 part of the talk, I wanted to emphasize why using this particular standard will be more efficient for everyone in the future (slide 8). When trying to win people to your side of a standard, you can never say too many good things about it. I added a slide describing how using NCGMP09 affects geologic fieldwork. People were generally relieved to hear that not much was going to change (slide 9).

I also wanted to talk about the FGDC cartographic standards because they fit together perfectly with NCGMP09. I gave everyone a copy of the manual and encouraged them to read the introductory material (slide 10). We went through how to read the various codes and symbols (slide 11). Then, I explained how FGDC and NCGMP09 work together to let the data drive the symbololgy (slide 12). There were many great discussions; particularly concerning location confidence. The great debate between specific (10 meter, 25 meter, etc) and descriptive (certain, approximate, etc.) location confidence could have gone on for hours!

Lastly, I had everyone fired-up their laptops for some hands-on activities. Before we all jumped into the exercises, I demonstrated the process of creating an NCGMP09 geodatabase using the 10.1 script in the NCGMP09 toolbox (slide 13). I did NOT have the participants try it on their own; it just would have required too much time. In the first exercise, participants populated new data into the MapUnitPolys feature class in their practice data folders (slide 14). Participants were able to practice creating data and filling in the required information. I also went over how to use the Create Features windows to help set defaults and templates. In the second exercise, participants loaded point features from a shapefile into the NCGMP09 Orientation-Points feature class (slide 15). This gave them practice on how to use the Simple Data Loader and identify missing required NCGM09 information. Lastly, people worked in groups to determine the best FGDC symbol for the lines in the ContactsAndFaults feature class (slide 16). It was interesting to see that groups chose slightly different symbols based on their interpretation of the LocationConfidenceMeters field.



DGGS geologists and GIS users explore strange new worlds and seek out new standards and new workflows.