Final Results from 2010 Digital Field Mapping Technology Survey

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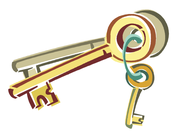
Digital mapping is defined as using a computer or personal digital assistant (PDA) to show and record information that has traditionally been recorded on paper, whether on note cards, in a notebook, or on a map.



Communication in the Geologic Community is Key to Advancing Digital Geologic Field Mapping

http://en.wikipedia.org/wiki/Digital_geologic_mapping

Wikipedia as a resource

- Easy to access and edit by anyone
- Language is free of jargon or defined
- Information is well documented

http://list.state.ak.us/soalists/geomapping_technology/jl.htm

Why a **listserv**?

- Will promote conversation and networking
- Easy and fast to use
- Information will be up-to-date
- Open membership

2010 survey results - satisfaction

Hardware

- 37% were satisfied, 43% were satisfied with reservations
- Geologists satisfied with their digital mapping use:
  - 48% like PDAs
  - 23% like laptops
  - 16% like tablet PCs
  - 13% like tablets

Software

- 39% were satisfied, 38% were satisfied with reservations
- Geologists satisfied with their digital mapping software are using a variety of products: 74% are using ESRI products, with ArcPad the most popular at 46%

- 20% were unsatisfied
- 78% of geologists not satisfied with their digital mapping hardware are using PDAs
- Unsatisfied digital mappers are twice as likely to experiment with smart phones as mapping devices

- 23% were unsatisfied
- 55% of digital geologic mappers who are unsatisfied use ArcPad
- 44% listed increased software ease-of-use, documentation, and support as the best way to improve their digital mapping system

2010 survey results - interest in digital technology

DGGS surveyed the geologic community regarding their interest in digital geologic mapping and the current technology being used. The e-mail survey went out to over 1,250 organizations (university geology departments, state and national geological surveys, and the private sector) with a ~13% response rate.

82%

of geologic organizations/geologists want to or already use computers to map in the field

Unsolicited Responses from Universities

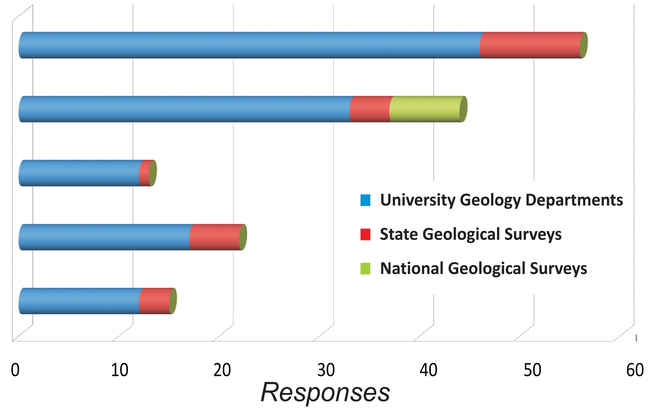
- A significant number of universities felt that undergraduate students should not have access to digital mapping equipment while learning the basics of field mapping (8%)
- Many universities already use digital mapping in undergraduate classes or student research (18%)

Digital Mapping Wishlist

Most commented (20 responses)

1. Increase software ease-of-use, documentation, and support
2. Decrease cost of system
   Make hardware with integrated GPS or better GPS
3. Make hardware lighter
4. Increase screen size (from PDA users)
5. Hardware becomes obsolete too fast
6. Hardware needs to be ruggedized
   Battery life needs to be longer
7. Write more Mac-compatible software
8. Faster processors and video cards
   Better screen visibility
   Embedded photo capability, better camera
9. Voice recognition
   Embedded sketch capability

Least commented (2 responses)



2010 survey results - technology being used

GIS Software Responses

ESRI ArcPAD: *35*
ESRI ArcGIS: *18*
Other programs: *25*

For Tablets, TabletPCs, Laptops
BGS SIGMA Mobile
ArcView
BeeGIS
GeoMapper/PenMap
Grass
Geovectra (Chile) "GVMapper"
Move - Midland Valley
AutoCAD Map
Ortelius (for Macs)

For PDAs
Trimble TerraSync
OziExplorer

Phone apps
GeoPaparazzi (Android)
eGeo Compass (Android)
Maps (iPhone)
Field Assets (iPhone)
My Maps (iPhone)

Hardware Responses

PDAs: *34* ruggedized, *17* non-ruggedized

Laptops: *8* ruggedized, *11* non-ruggedized

Tablets: *8* ruggedized, *4* non-ruggedized

Phones: *7* non-ruggedized

TabletPCs: *2* ruggedized, *4* non-ruggedized

Examples pictured from top to bottom: Trimble Nomad, http://www.trimble.com; Dell Latitude E5420, http://www.dell.com; Itronix Duo-Touch II, http://www.groupmobile.com; Apple iPhone, http://store.apple.com; Lifebook T730, http://store.shopfujitsu.com.

The Alaska Division of Geological & Geophysical Surveys (DGGS) collects, analyzes, and publishes geological and geophysical information in order to inventory and manage Alaska's natural resources and mitigate geologic-hazard risks. In 2005, DGGS began investigating the potential of digital field mapping technology to streamline data collection and processing. (Note: Software and hardware listed on this poster are not necessarily all-inclusive of those potentially capable of meeting requirements for field entry of geologic data. Brand names are examples only and do not imply endorsement by the State of Alaska.)

Metadata

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