

DIGITAL MAPPING TECHNIQUES 2013

The following was presented at DMT'13
(June 2-5, 2013 - Colorado Geological Survey and Colorado School of Mines
Golden, CO)

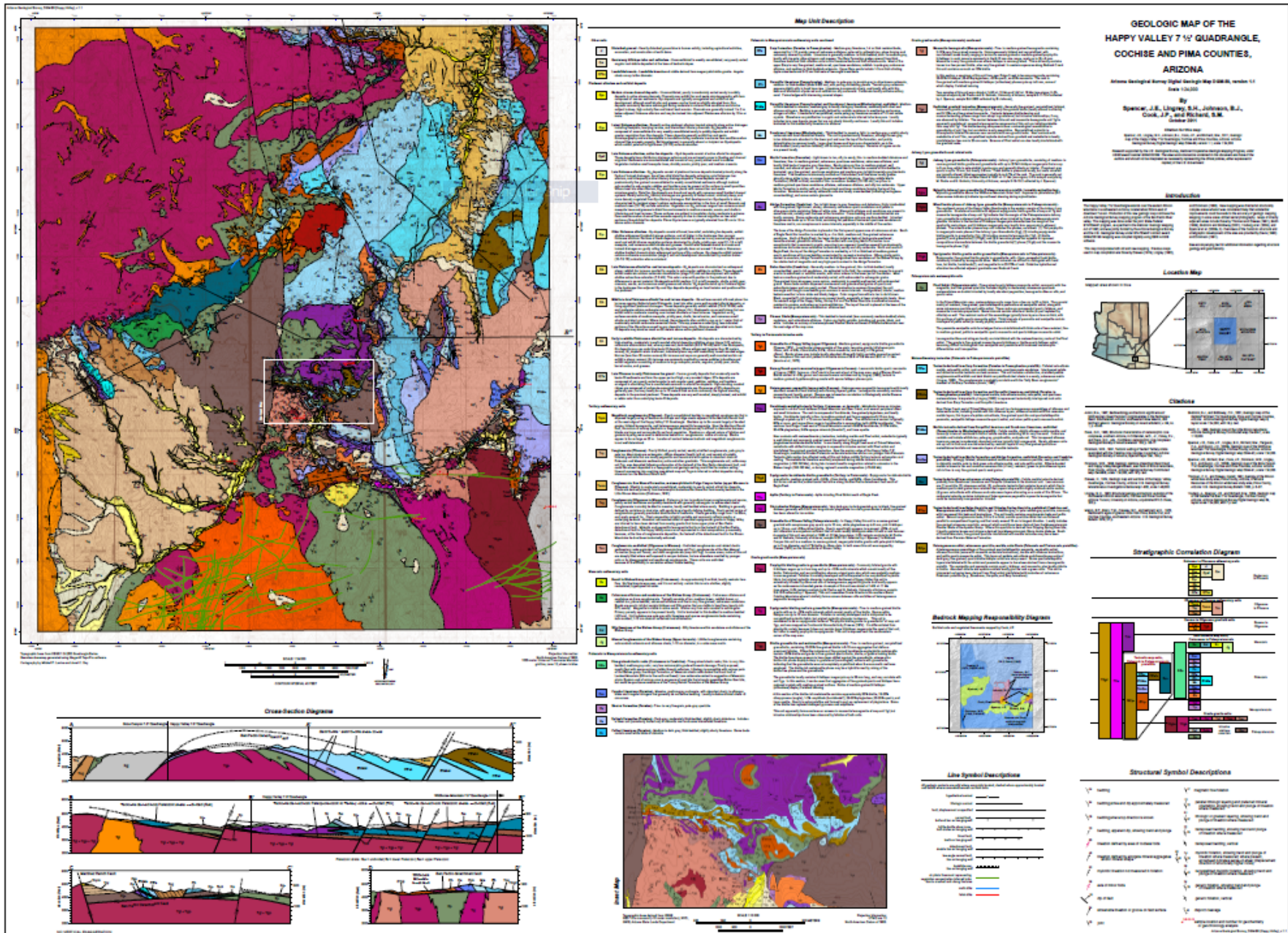
The contents of this document are provisional

See Presentations and Proceedings
from the DMT Meetings (1997-2013)

<http://ngmdb.usgs.gov/info/dmt/>

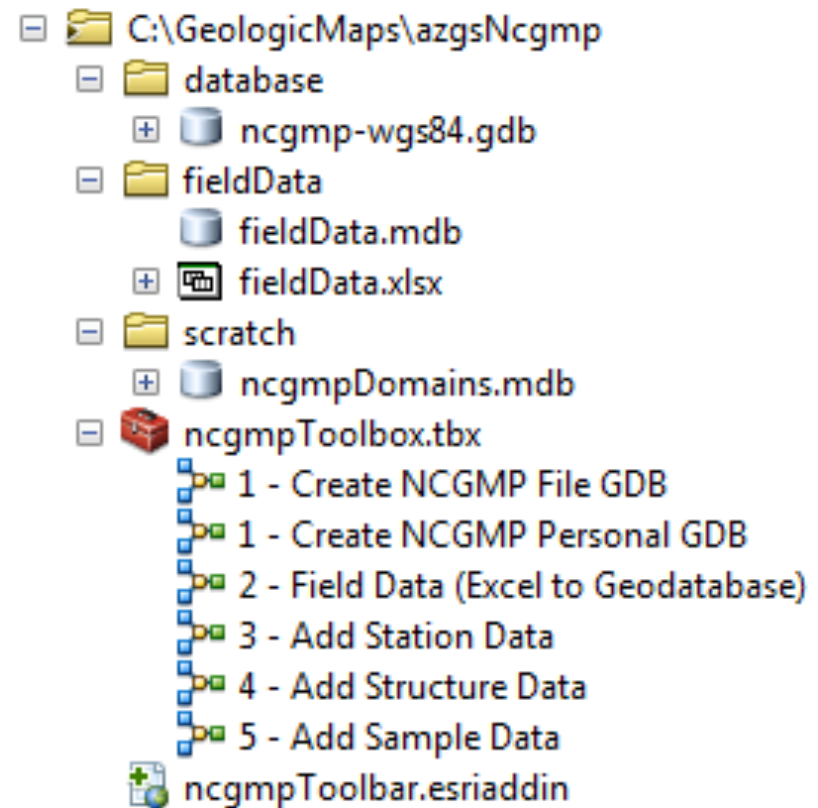
Streamlining geologic map production and archiving with NCGMP Tools

Presented by:
Janel Day
Arizona Geological Survey



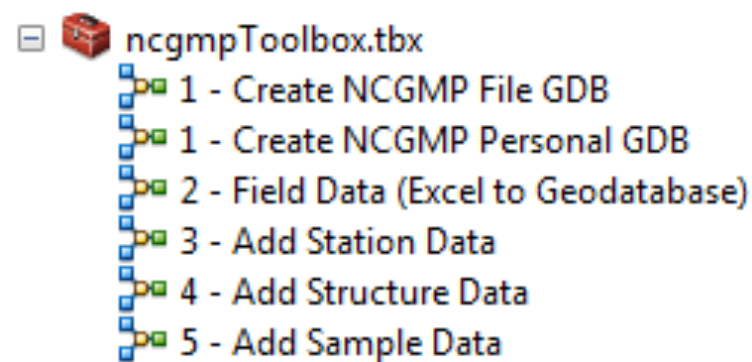
What we are developing. . .

- Tools that streamline the geologic mapping production and archival process:
 - Toolbox
 - AddIn
 - Documentation



In the toolbox. . .

- You'll find tools to:
 - Create NCMGP formatted database (azgs style)
 - Import field data into NCGMP point feature classes (stations, orientation data points, samples)

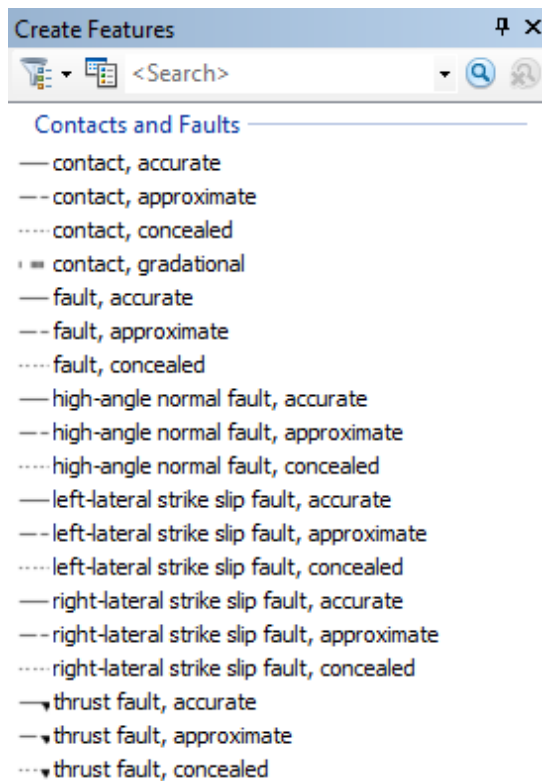


Esri AddIn



- Key Features:
 - ‘Default’ contact, fault and orientation data templates
 - Manage data sources/feature level metadata
 - Digitize structure data from scanned maps tool
 - Manage map unit legend data, hierarchy and symbology
 - Produce map unit legend in ArcMap layout view

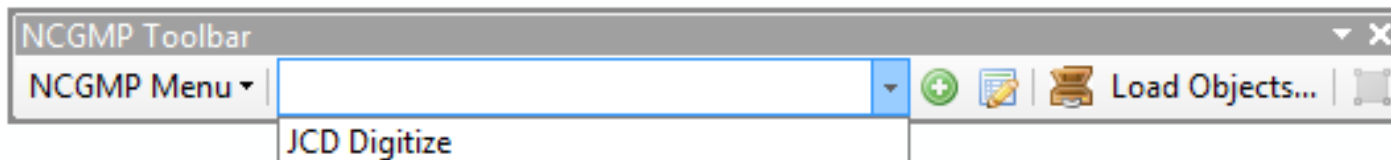
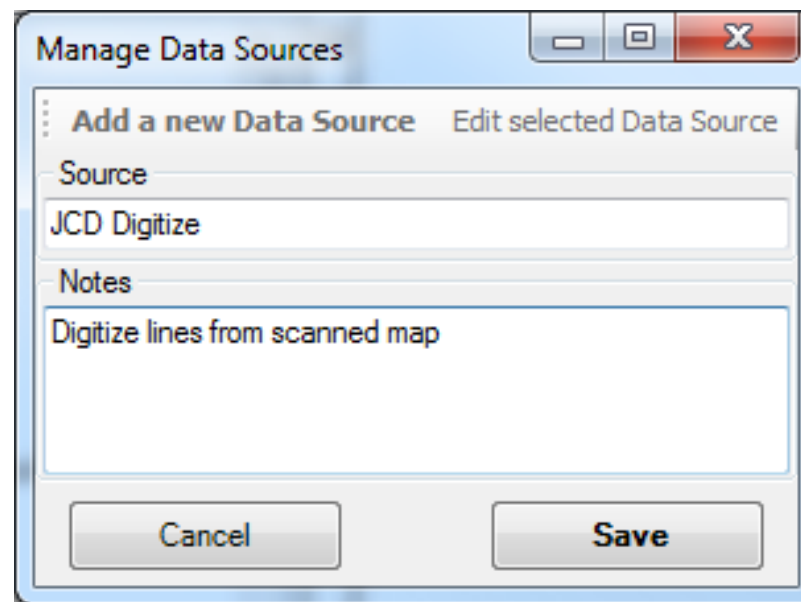
Default Templates



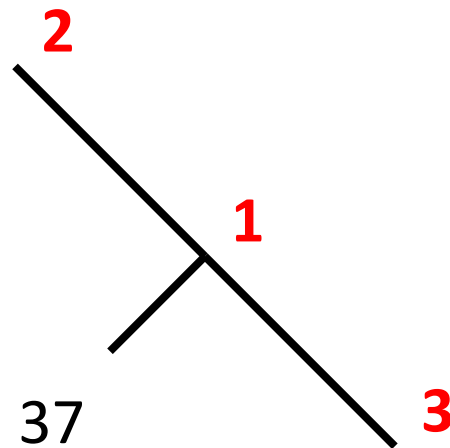
Orientation Data

- ↳ bedding, approximate
- ↳ bedding, horizontal
- ↳ bedding, inclined
- ↳ bedding, transposed
- ↳ cleavage
- ↳ contact dip
- fault attitude
- ↳ fault attitude (no fault trace)
- ↳ foliation, eutaxitic
- ↳ foliation, generic
- ↳ foliation, gneissic layering
- ↳ foliation, mylonitic
- ↳ joint
- ↳ lineation, generic (arrowhead)
- ↳ lineation, generic (no arrowhead)
- ↳ lineation, horizontal
- ↳ slickenline, horizontal
- ↳ slickenline, inclined

Feature Level Metadata



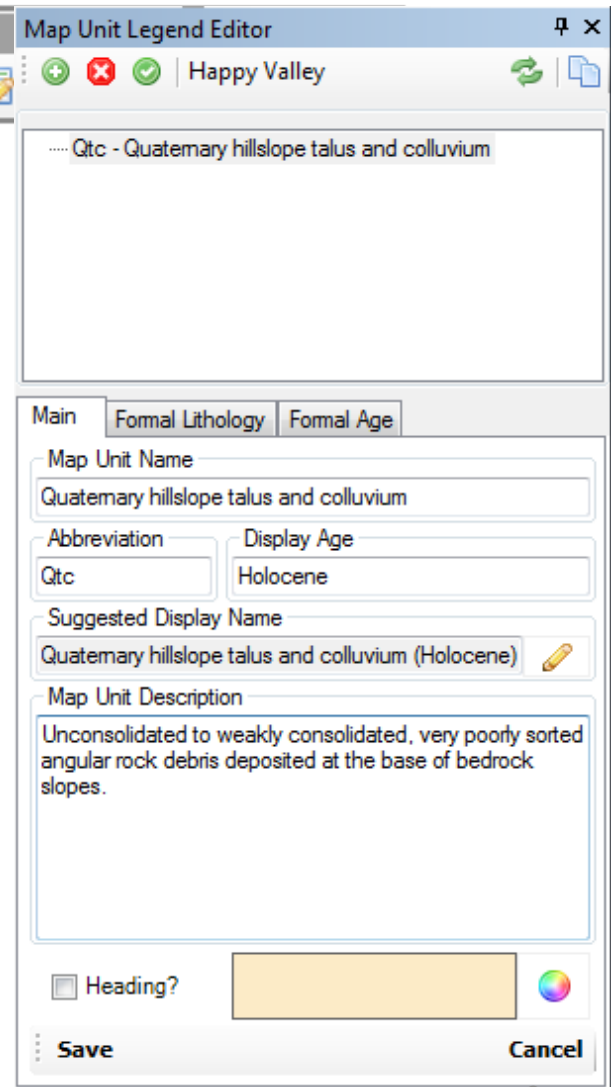
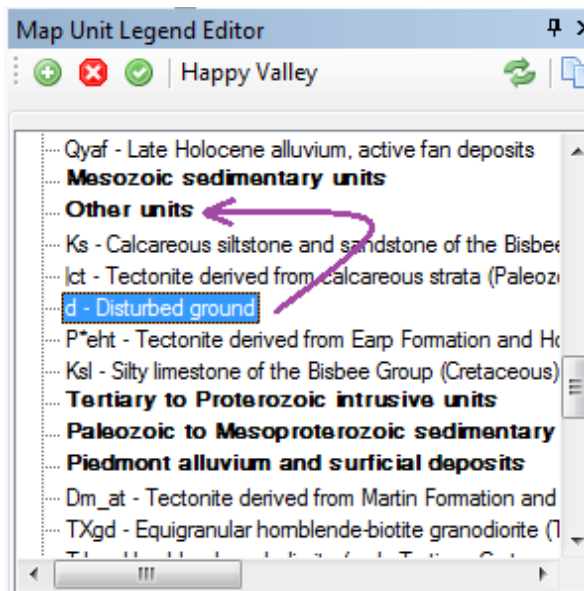
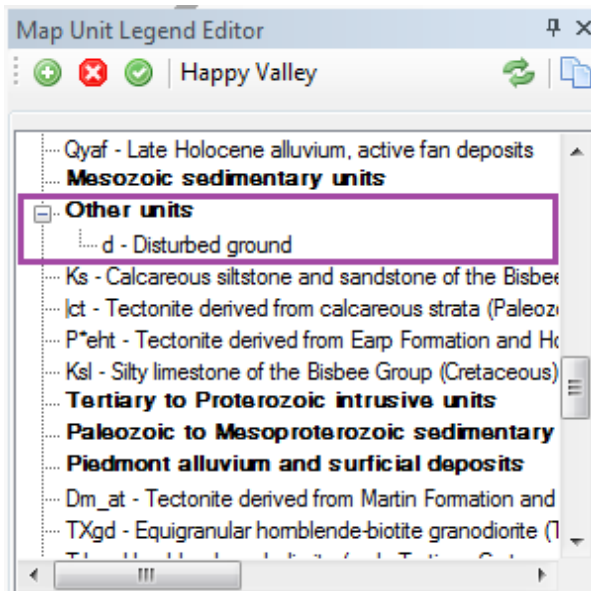
Digitize structure data



Orientation Data

- | bedding, approximate
- ⊞ bedding, horizontal
- | bedding, inclined ←
- | bedding, transposed
- cleavage
- | contact dip
- fault attitude
- | fault attitude (no fault trace)
- | foliation, eutaxitic
- | foliation, generic
- | foliation, gneissic layering
- | foliation, mylonitic
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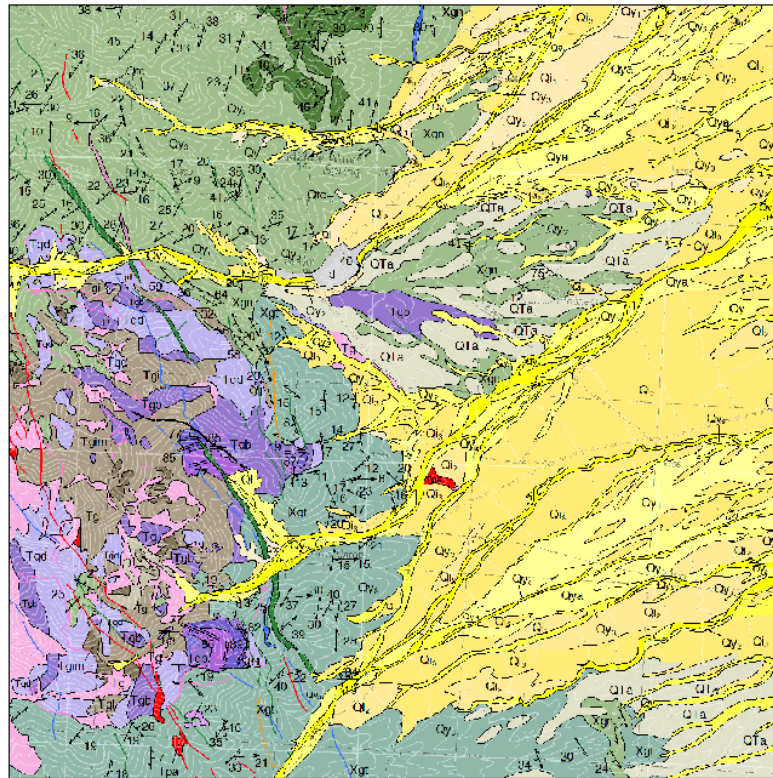
Manage map unit legend



Produce map unit legend



Middle Water Spring



Map Unit Description



Documentation

- Documented workflow for:
 - Creating NCGMP database
 - Importing field data into geodatabase
 - Compiling geologic maps in Arc
 - Digitizing
 - Attribution
 - Creating map layout

Final words

- OFR to be released later this summer
- Tools work against AZGS NCGMP database
- More collaboration among colleagues for further development would be nice

Questions?