

Importing Mapping From the Real Time Interactive Mapping System (RIMS) to ArcGIS

Oct. 30, 2006

*Copyright (C) 2006, Eric Cowgill
RIMS program, Copyright (C) 2006, Tony Bernardin*

If you publish results obtained using RIMS, please cite the G-cubed paper by Bernardin, T., E. Cowgill, R. Gold, B. Hamann, O. Kreylos, and A. Schmitt, 2006, Interactive mapping on 3-D terrain models: Geochemistry, Geophysics, Geosystems, 7, Q10013, doi:10.1029/2006GC001335

1. Download Styles File

* Download the GPSec.style file from the RIMS portion of either the keckCAVES site (<http://www.keckcaves.org/>) or my website (<http://www.geology.ucdavis.edu/~cowgill/>).

2. Load Mapping into ArcGIS 9

* make a backup copy of the e00 mapping file you made in RIMS.

* Launch ArcCatalog, Select View > Toolbars and make sure ArcView8x tools are on.

* In the “conversion tools” menu select “import to interchange”, specify input and output file names and directories. Note that you can run the import tool in batch mode to ingest more than one e00 file at a time. Also note that we have found this conversion method to be much more stable than the one available in ArcToolbox.

* If the RIMS and ArcMap projects have the same projection and datum, the imported file can be loaded without a projection. Otherwise projection/datum will need to be assigned.

*NOTE: Neither the ArcCatalog nor ArcToolbox e00 conversion tools in ArcGIS v9.1 can import an e00 file with line segments that have more than 400 nodes. If there is a line with more than 400 nodes, ArcToolbox will hang and the process must be killed manually, whereas ArcCatalog just fails to import.

3. Decorate Lines in ArcGIS 9 Using Symbols in Styles File

*This information is provided for users who wish to import their mapping into ArcGIS 9 and then decorate the mapped lines using the set of standard symbols developed by Eric Cowgill. It is presumed that you have attributed your mapping within RIMS using the 4-digit L-CLASSSTR values shown in the “Map Conventions.pdf” file available in the ARC folder in the RIMS download site at www.keckcaves.org. It is also presumed that lines to be decorated with “asymmetric” symbols have been mapped in the correct direction as explained in the note in Section 2d, above.

*Go to the RIMS download area at www.keckcaves.org and download the Arc style file "GPSec.style" available from the ARC folder. Note where you save it.

*Launch ArcMap and import the mapping done in RIMS, as described in Section 2e.

*Load the GPSec.style custom style file into the ArcMap project

- in ArcMap select Tools > styles > style manager.
- StyleManager window opens.
- In StyleManager window select Styles pull down and select new stylefile "GPSec.style"
- Folder will appear in leftmost tree
- Check the style file: expand the GPSec.style folder in tree and open the Line Symbols folder. The new line styles should appear in column to right.
- Close Style Manager.

*Apply styles to project

- In ArcMap table of contents, right click on coverage to be decorated and select properties
- Click on Symbology tab
- Click on Categories in tree on left
- Select "match to symbols in a style"
- Select L-CLASSSTR in Value Field in pull-down menu
- Select "GPSec.style" in "match to symbols in style"
- Press "Match Symbols" button and then "Apply" and "OK"

*If symbols are too big/small, try setting a reference scale:

- in ArcMap go to View > Data Frame Properties and select the "General Tab"
- set reference scale to 1:750,000

*Now apply the reference scale to the RIMS mapping imported into ArcMap:

- right click on the coverage imported from RIMS in table of contents
- select properties
- select Display tab and tick "scale symbols when a reference scale is set"