

The following was presented at DMT'10
(May 16-19, 2010).

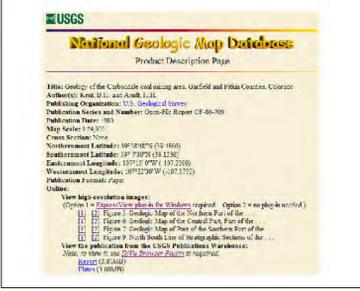
The contents are provisional and will be
superseded by a paper in the
DMT'10 Proceedings.

See also earlier Proceedings (1997-2009)
<http://ngmdb.usgs.gov/info/dmt/>

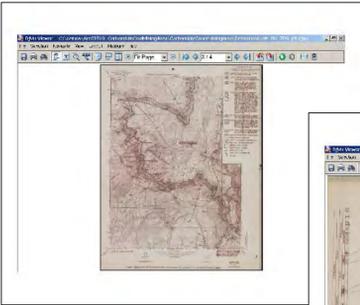
Coal Basin, Pitkin County, Colorado- An Example of NGMDB Data Capture, Conversion and 3D Editing in ArcGIS10- Willy Lynch, ESRI

Coal Basin is located in the Carbonate Coal Field near Redstone, Pitkin County, Colorado and is perhaps best known for the April 15, 1981 coal mine disaster in the Dutch Creek Mine which killed 15 miners. Geologic mapping and coal resource assessments were completed in the area in late 1970's by the USGS and were published as black and white Open-File maps (USGS Open-File Report 80-709). These maps are cataloged and made available by the NGMDB database as scanned images and .dju files. As a case study of new 3D functionality and digital mapping tools in ArcGIS10, the original map files were exported as jpg images (multi-page), georeferenced and digitized to capture the geologic data. The data was loaded into ESRI file geodatabase format using a field oriented geologic data model and 2D and 3D maps were created. Using newly available high resolution ESRI basemap maps and images, the digital data is now available to be easily edited and updated to better document coal seam outcrops and regional geology.

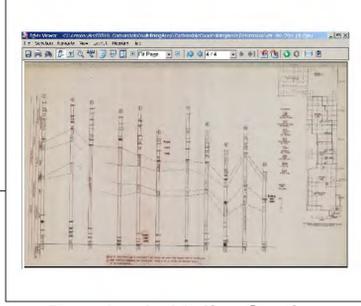
This poster will be both a paper printed product and a live digital demo of the data.



Original NGMDB Catalog Search Result



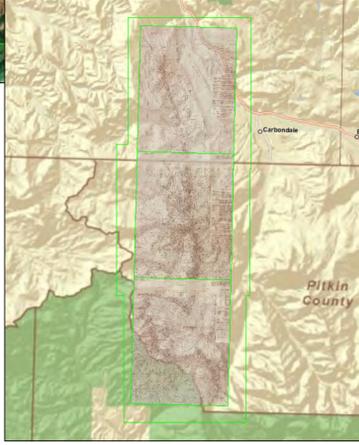
Downloaded *.dju Planmap



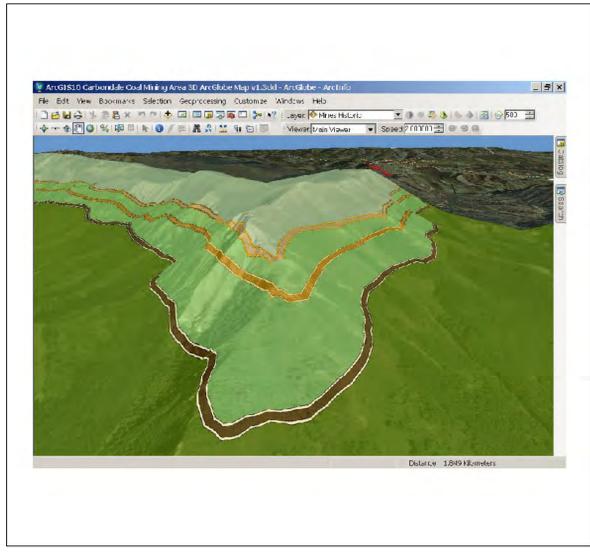
Downloaded *.dju Section



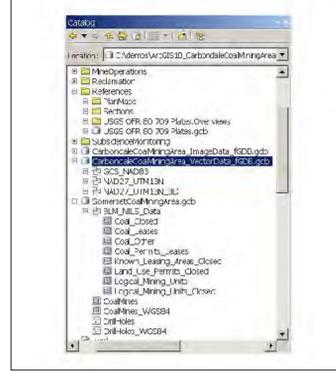
ArcGIS10 Seamless NED DEM Mosaic Dataset



ArcGIS10 Seamless Scanned Geologic Map Mosaic Dataset

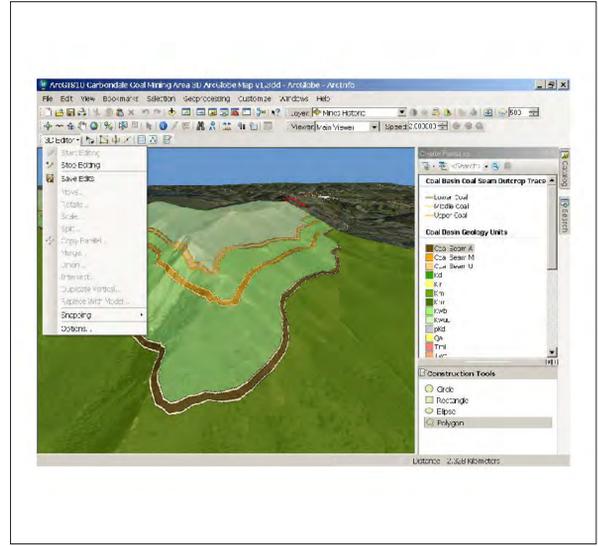


Simple Data Model



Coal Basin, Pitkin County, Colorado An Example of NGMDB Data Capture, Conversion and 3D Editing in ArcGIS10

3D Visualization using 3D Analyst ArcGlobe (or ArcScene)



3D Editing in 3D Analyst ArcGlobe (or ArcScene)

Placita 7 1/2 Quad, Coal Basin, Pitkin County, Colorado

