Encom Discover 2011 and Discover 3D 2011

Chris Jenkins

Natural Resources GIS, PBBI

PBBI's Natural Resources Technologies?

GIS

» MapInfo Professional
» Discover

3D GIS Visualisation

» Discover3D

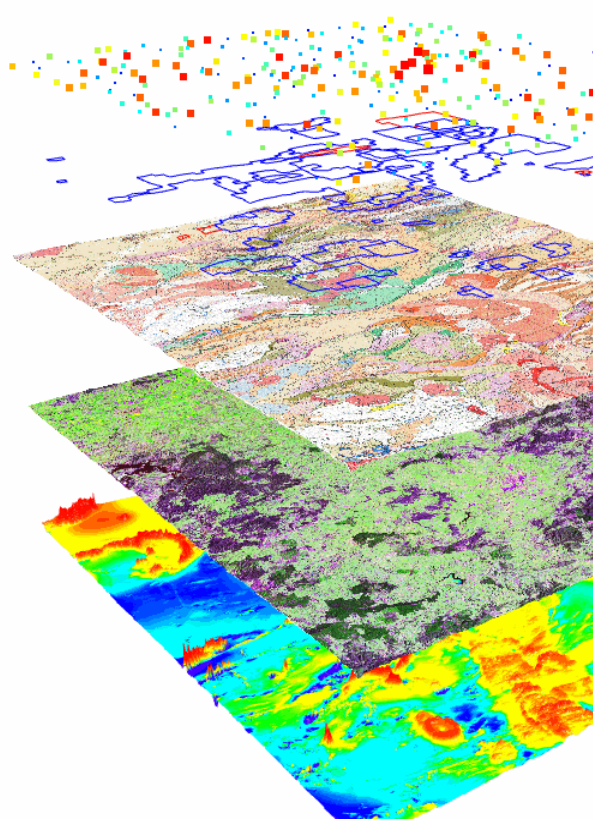
Benefits for all who utilise data on a day to day basis that has a spatial context

Users who need to see their data in a real world context

Geophysics

» Encom PA (inc 3D)
» ModelVision (inc 3D)
» QuickMag (inc 3D)
» EM Flow (inc 3D)

Consultants who need to model non-intrusive subsurface data quickly and efficiently whilst outputting intuitive looking results and models such as Ground Water Salinity Surveys



Encom Discover 2011

Overview of what's new!

Surfaces

Hydrology

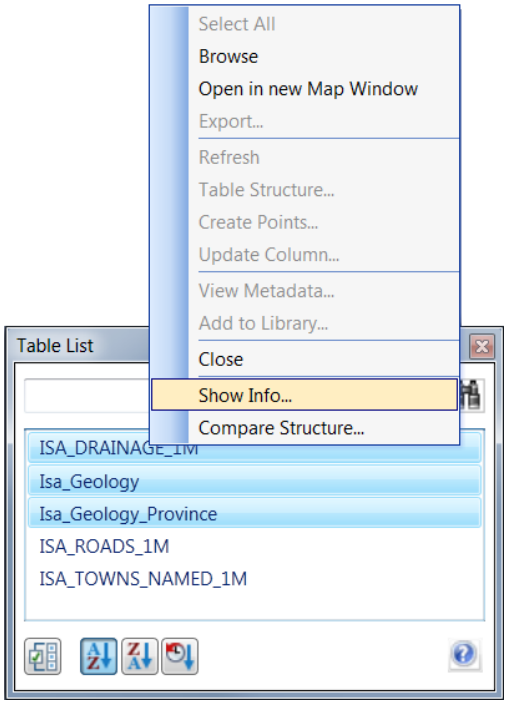
Drillhole Module

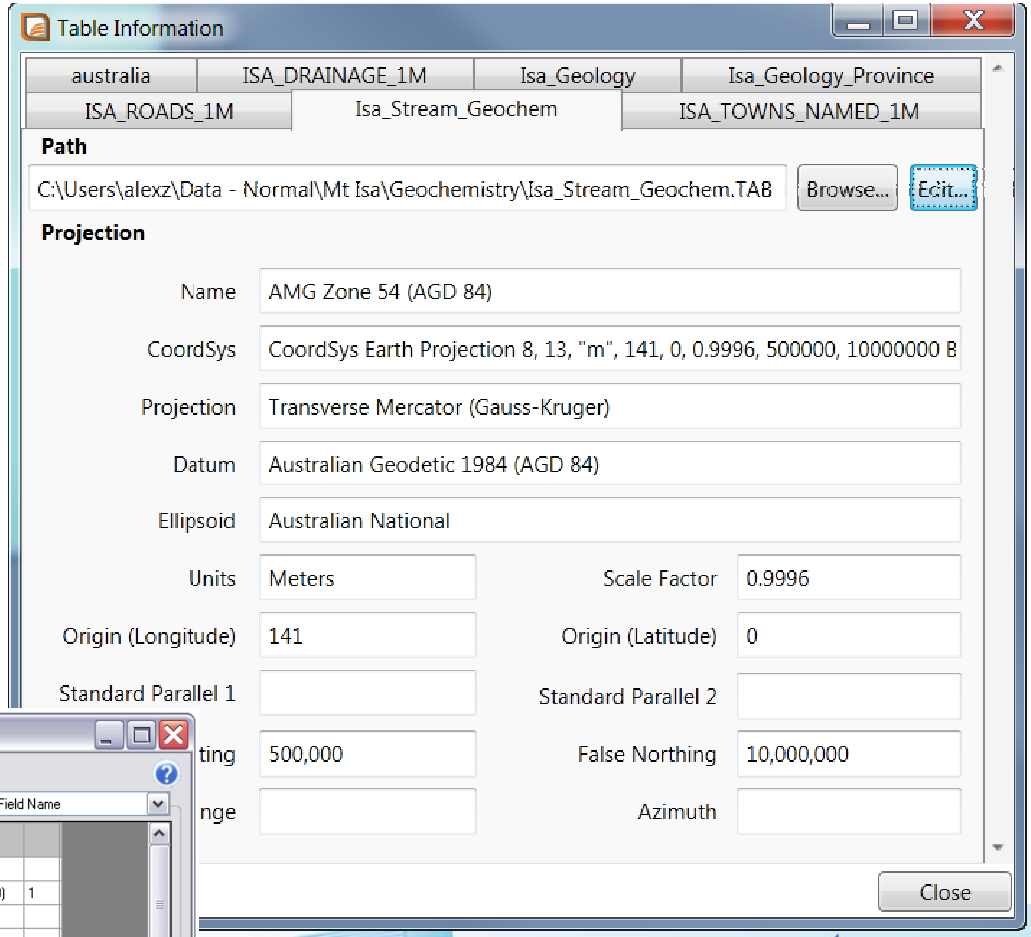
Surface Interpolation and Analysis

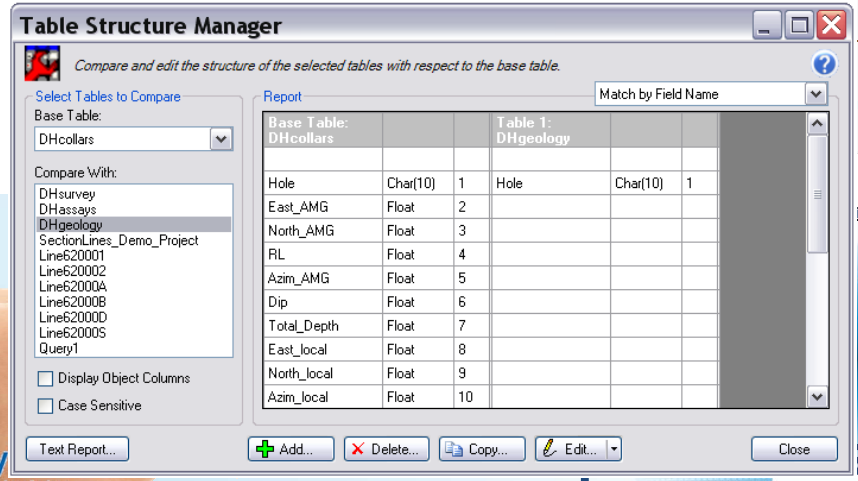
Seismic Modeling

3D Modeling and Visualisation

New Table List and Layer Control options





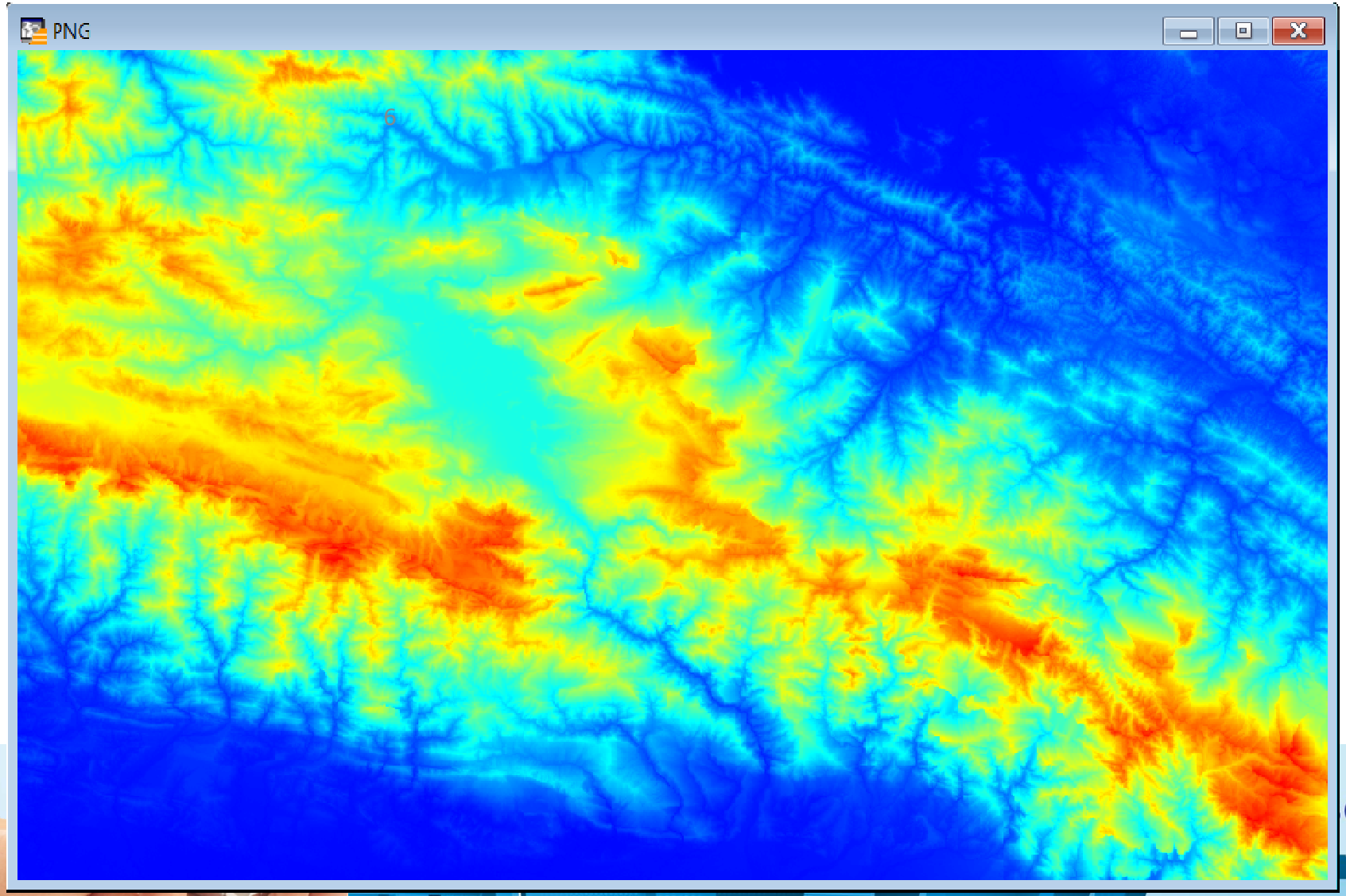


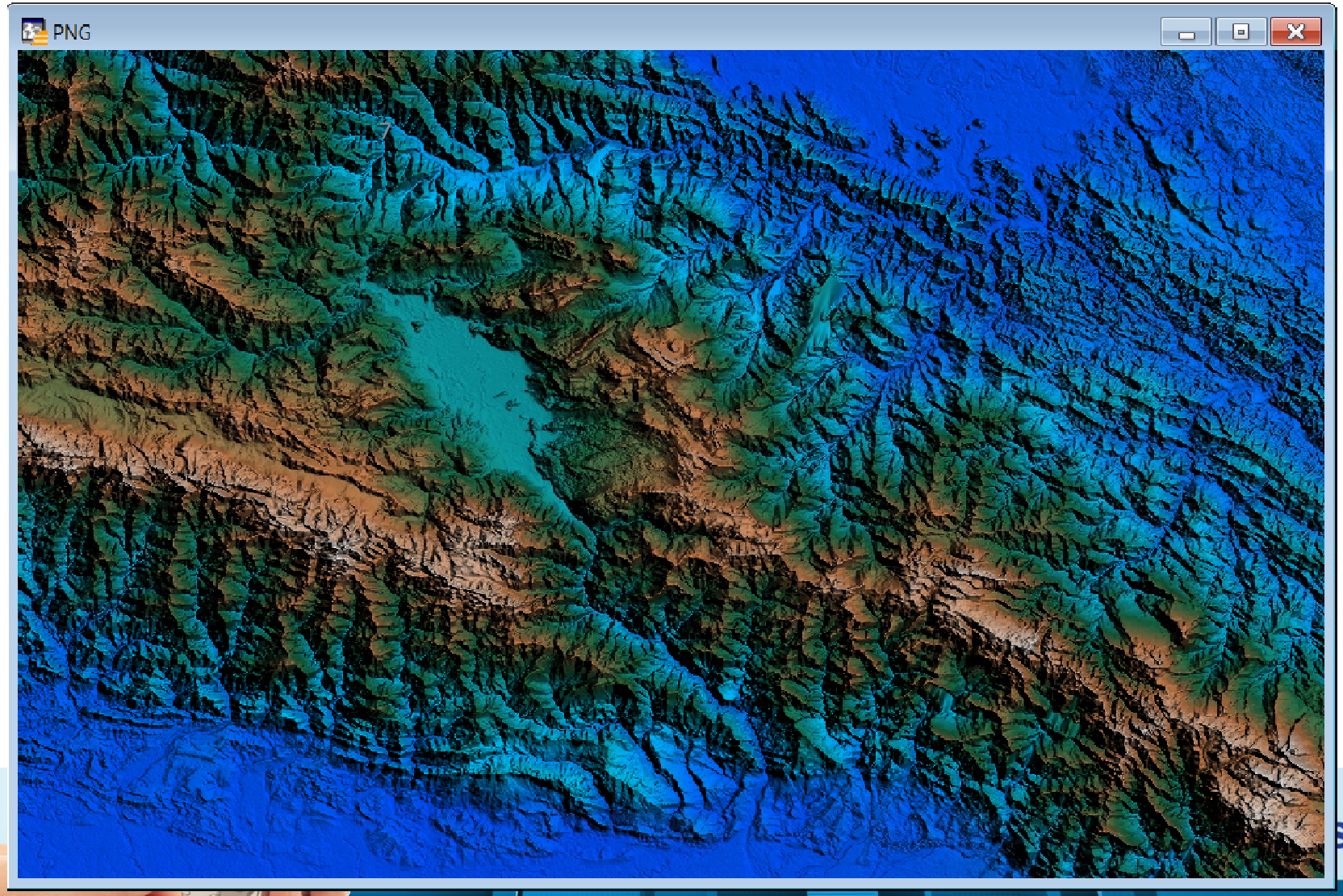
Surface Contouring

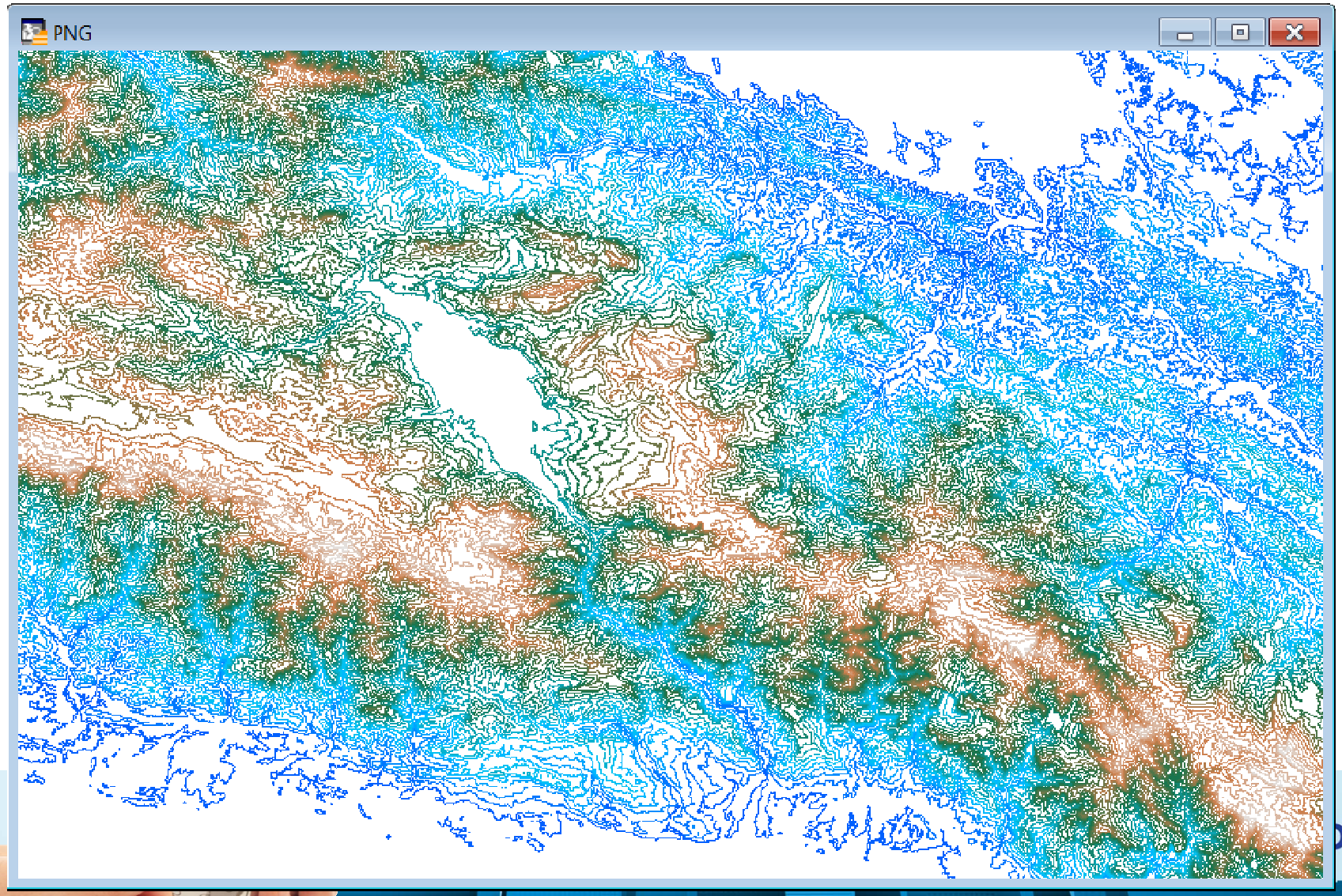
Completely new grid contouring engine supports very large (multi-gigabyte) grid datasets (such as continental scale LIDAR and SRTM data)

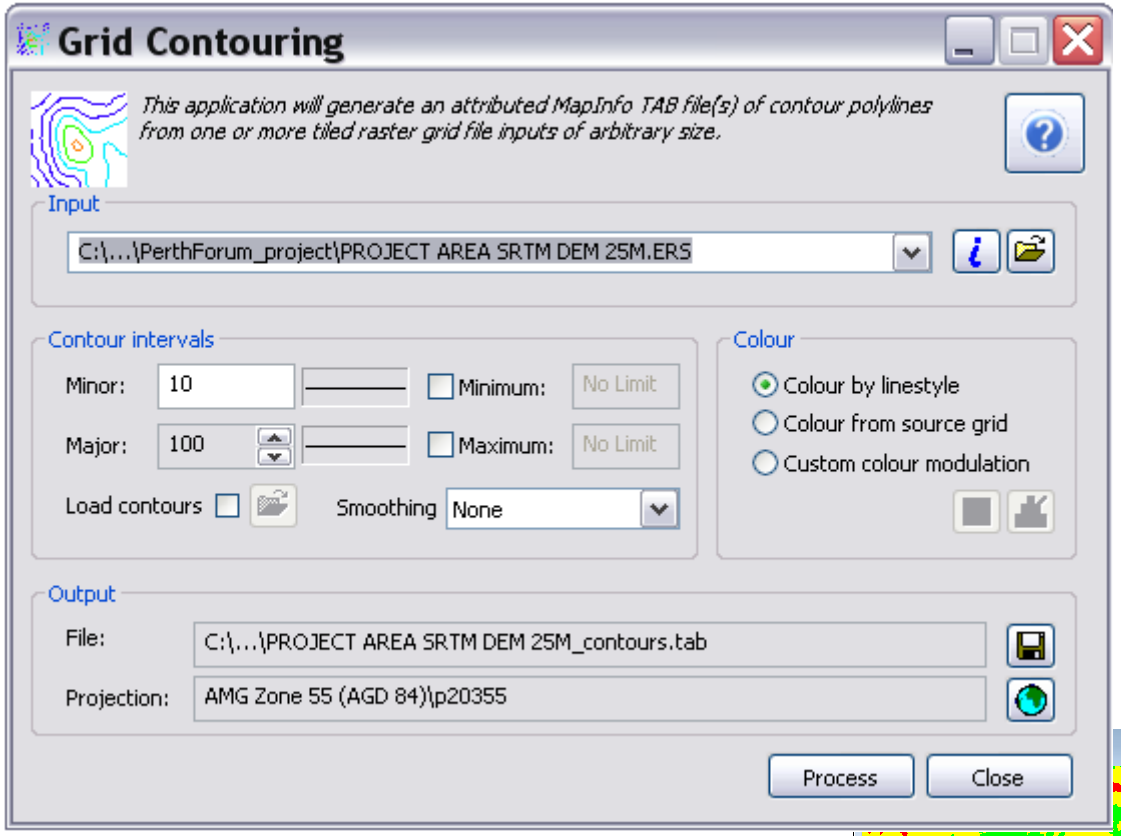
Supports multiple input grids i.e. tiled datasets

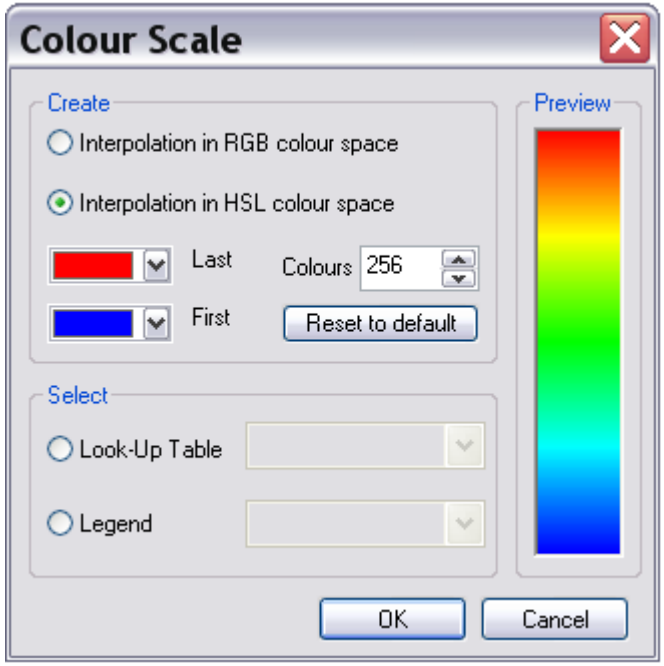
Can apply a user specified legend


PNG


PNG

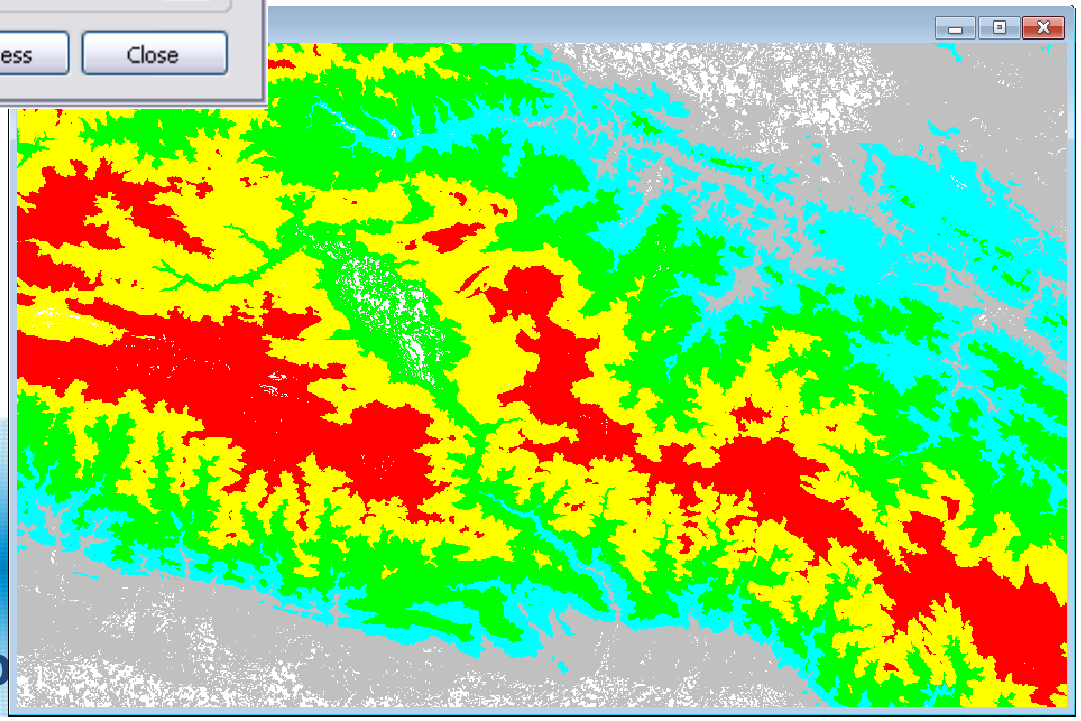

PNG


Grid Contouring
This application will generate an attributed MapInfo TAB file(s) of contour polylines from one or more tiled raster grid file inputs of arbitrary size.
Input
C:\...\PerthForum_project\PROJECT AREA SRTM DEM 25M.ERS
Contour intervals
Minor: 10
Minimum: No Limit
Major: 100
Maximum: No Limit
Load contours
Smoothing None
Colour
Colour by linestyle
Colour from source grid
Custom colour modulation
Output
File: C:\...\PROJECT AREA SRTM DEM 25M_contours.tab
Projection: AMG Zone 55 (AGD 84)\p20355
Process
Close

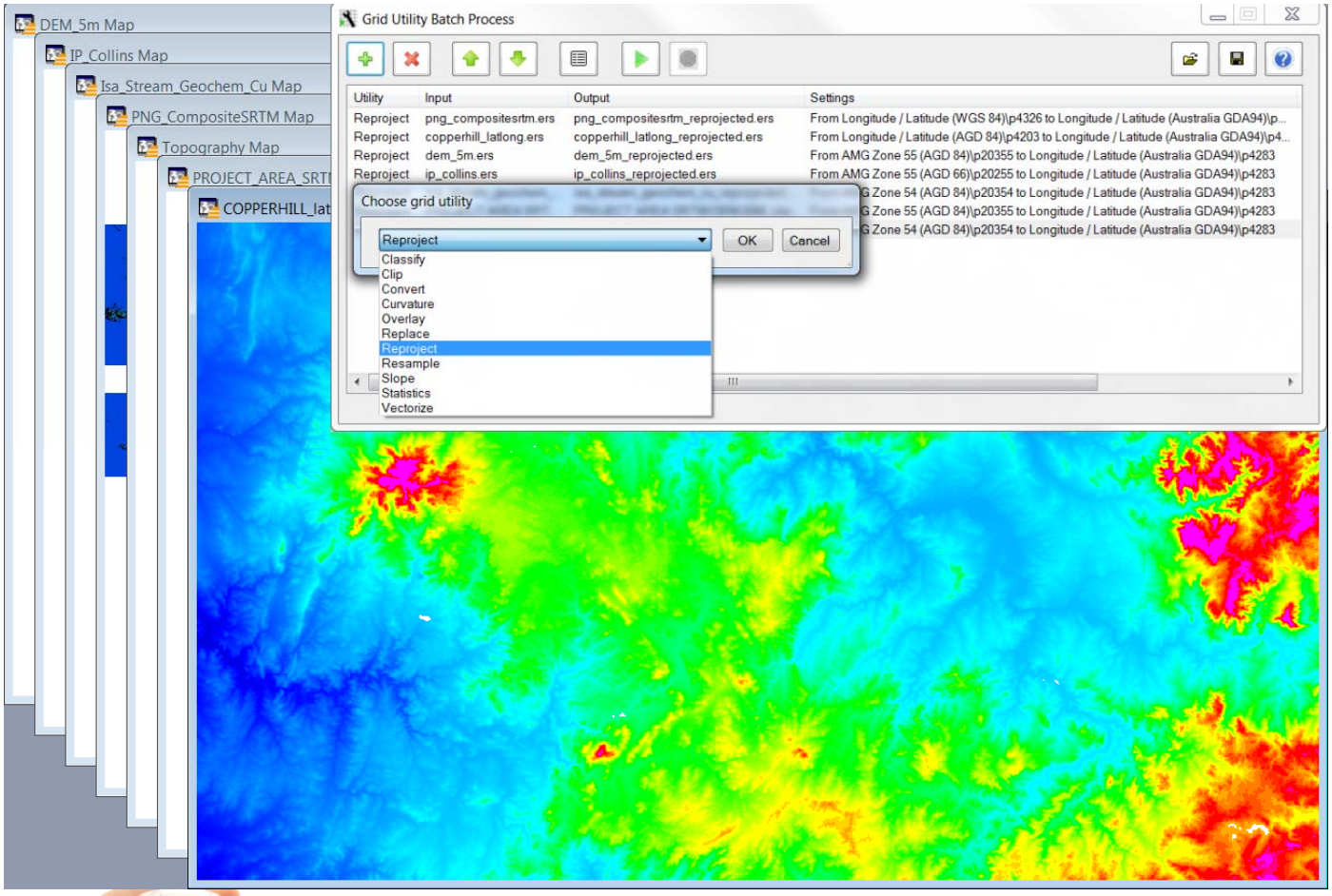

Colour Scale
Create
Interpolation in RGB colour space
Interpolation in HSL colour space
Last
Colours 256
First
Reset to default
Select
Look-Up Table
Legend
Preview
OK
Cancel

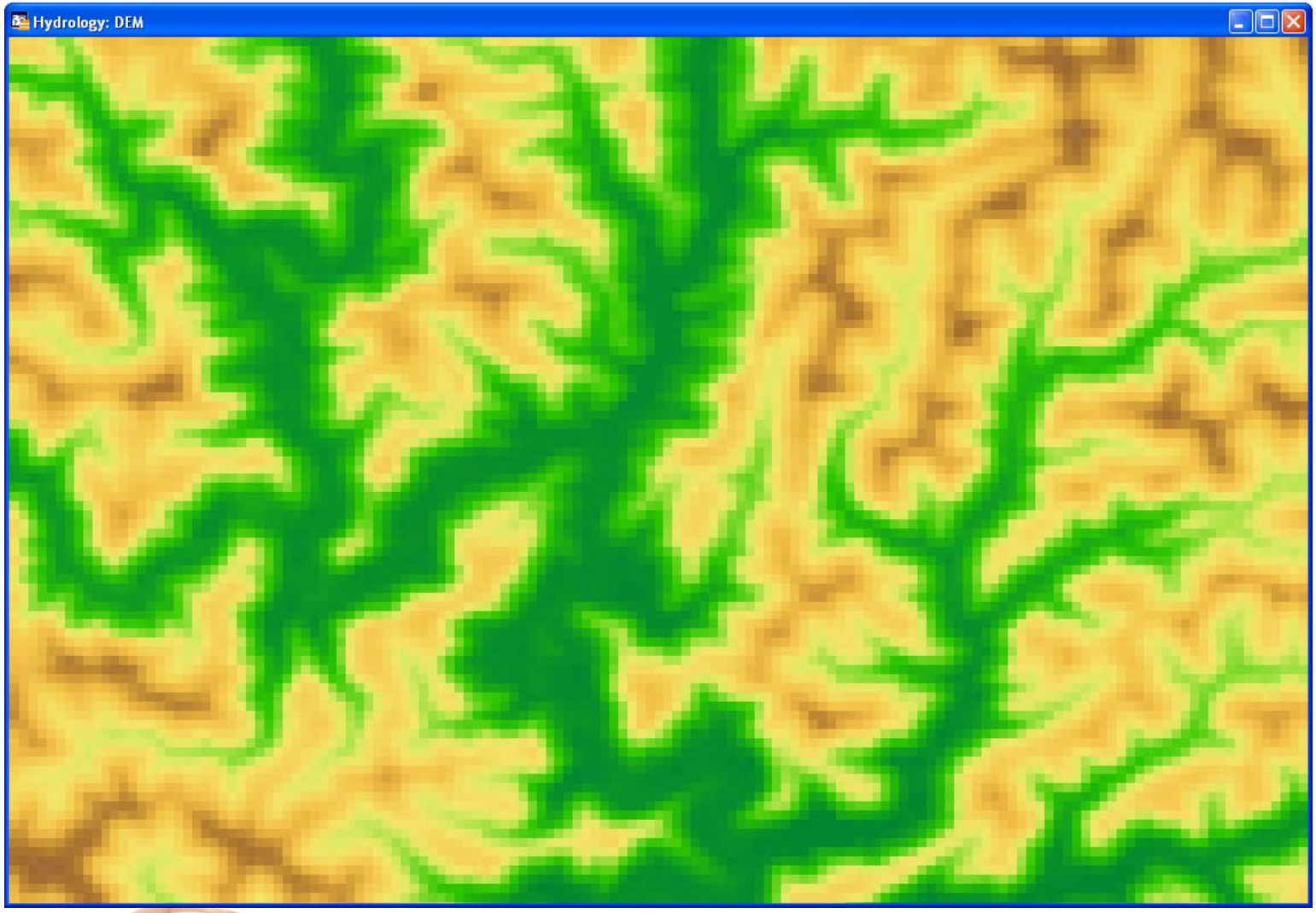

PitneyBowes
Business Insight

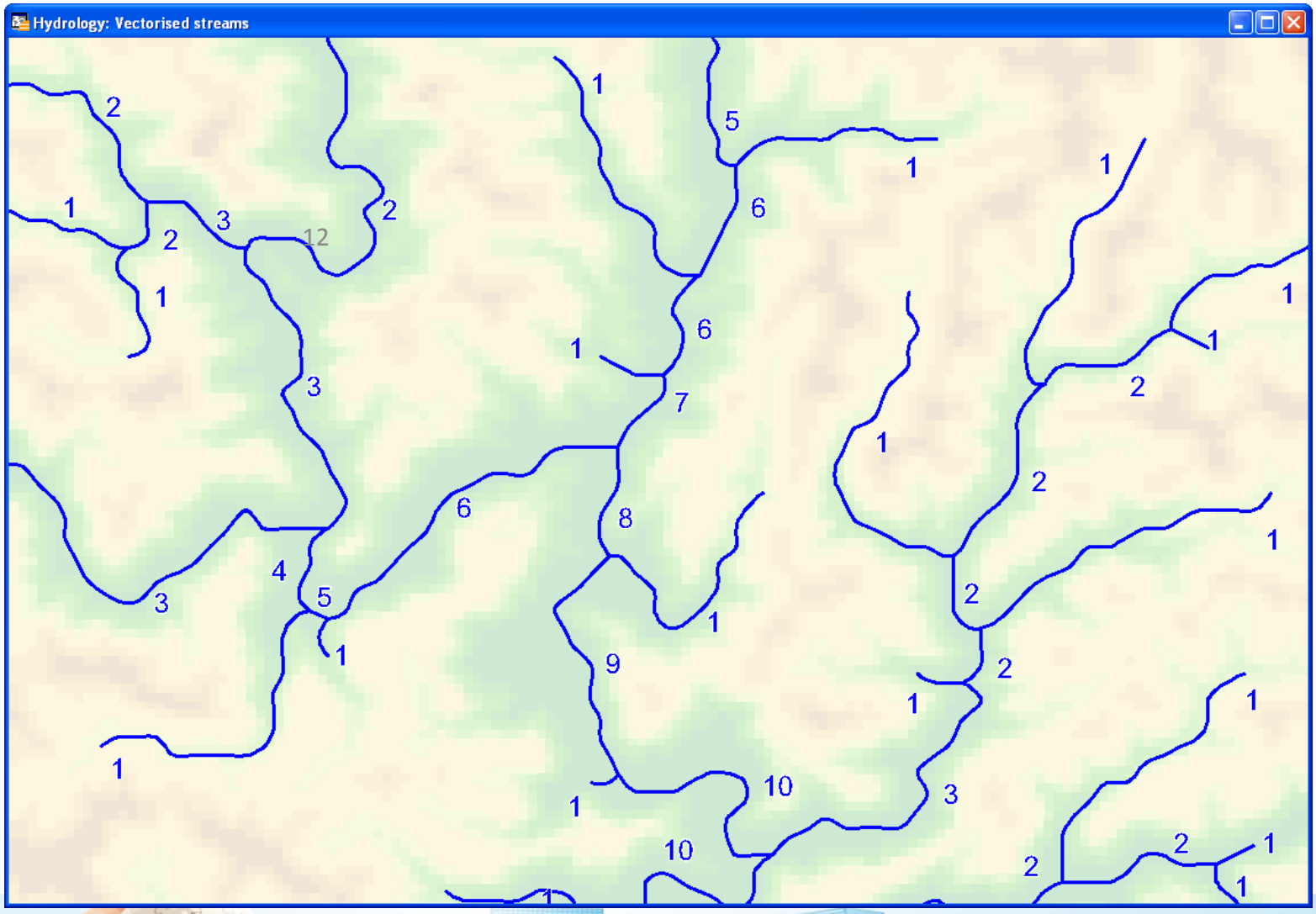
6. MapInfo

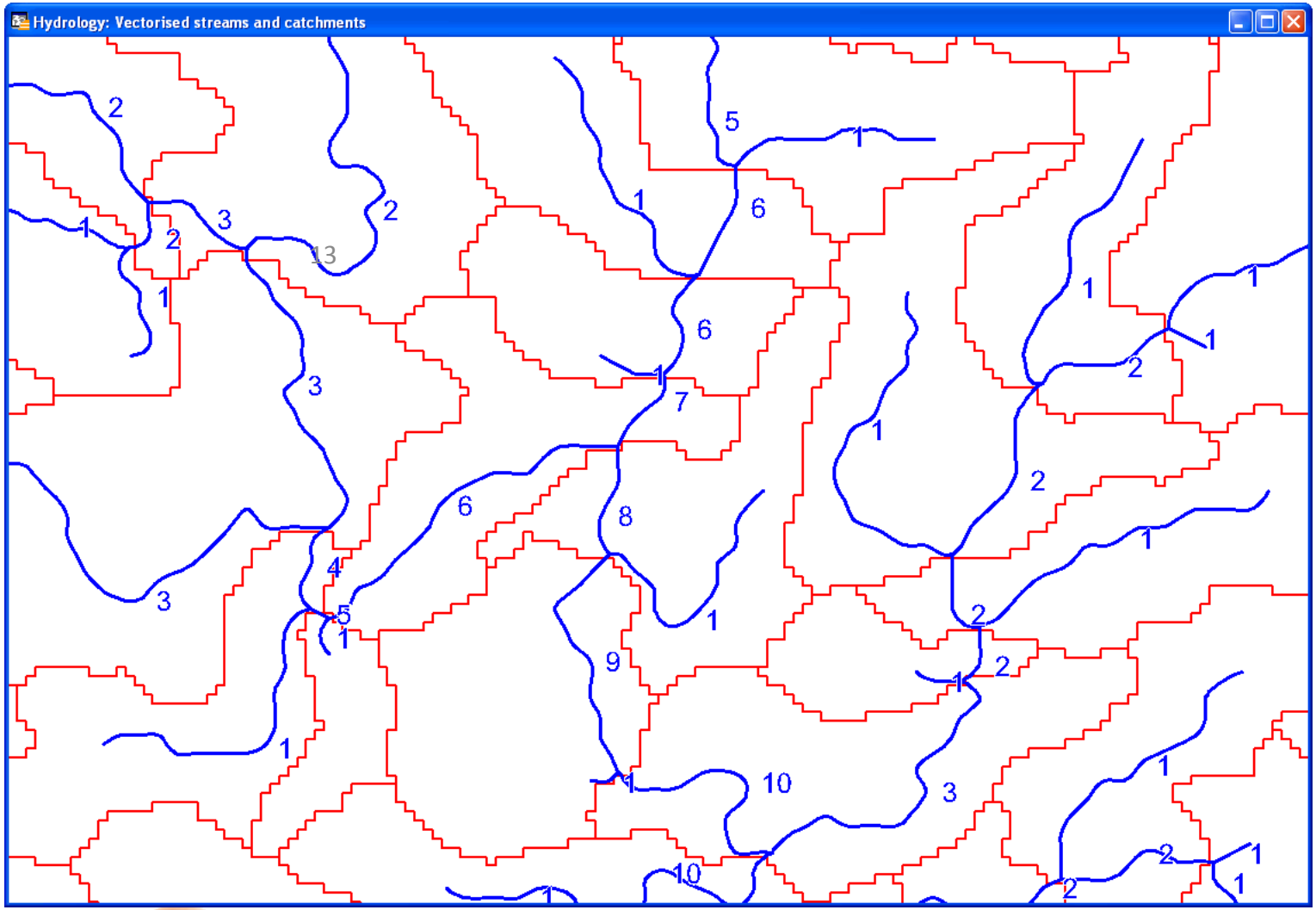


Batch Grid Processing




Hydrology: DEM

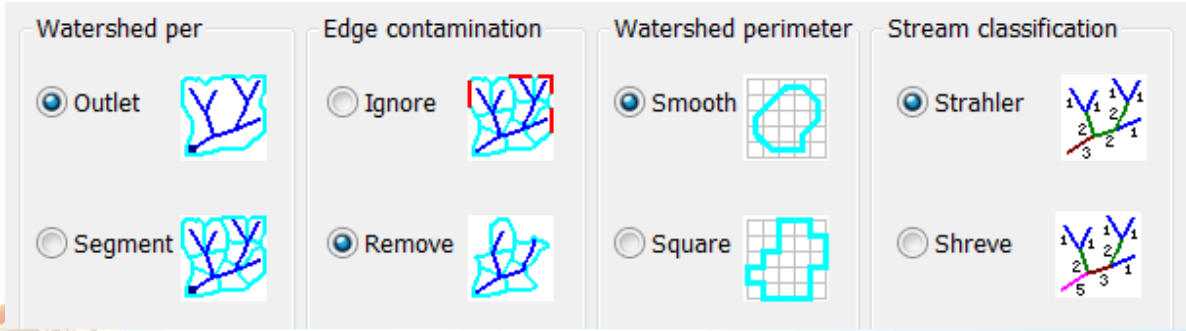

Hydrology: Vectorised streams


Hydrology: Vectorised streams and catchments


PitneyBowes
Business Insight
6. MapInfo Kullanıcılar Konferansı
Başarsoft
MapInfo

Hydrological Analysis Improvements

- Lakes and dams can be filtered out of the processing based on their area and/or depth
- Lakes and dams are also now incorporated into the stream generation process
- Catchments and streams can now be saved as grids, allowing further advanced processing within the Surfaces module
- Generate multiple catchments per stream, via either specified locations or for each stream segment
- Significant performance gains through the re-use of intermediary grid files.

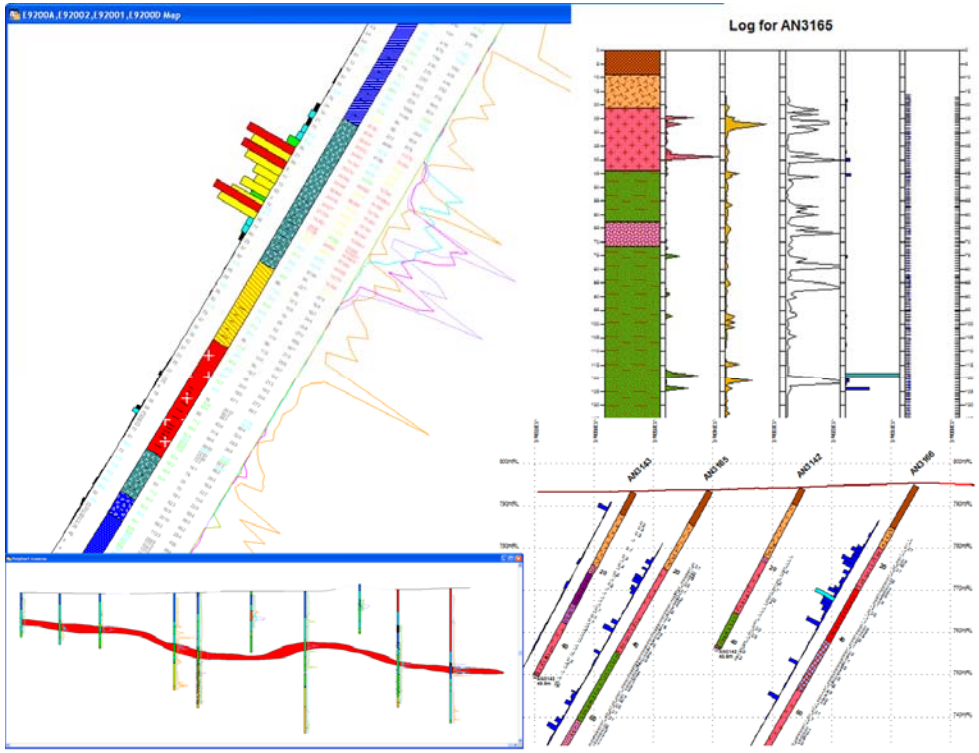


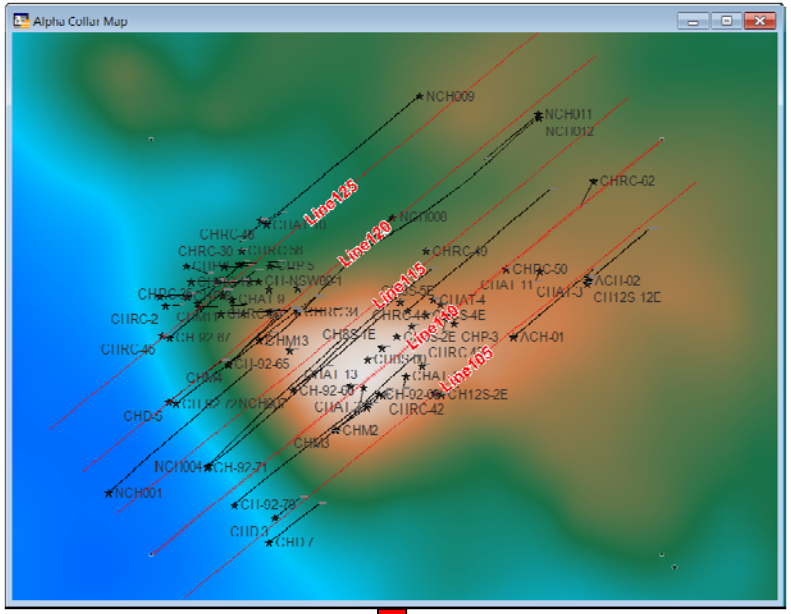
Drillholes

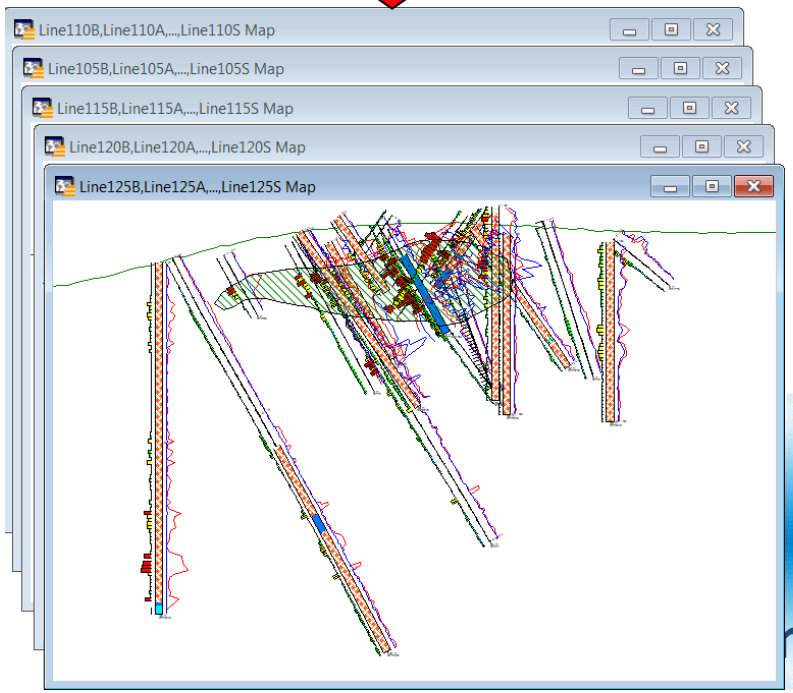
Analyze and visualize salinity/pollution monitoring boreholes, geotechnical drilling and mineral exploration programs

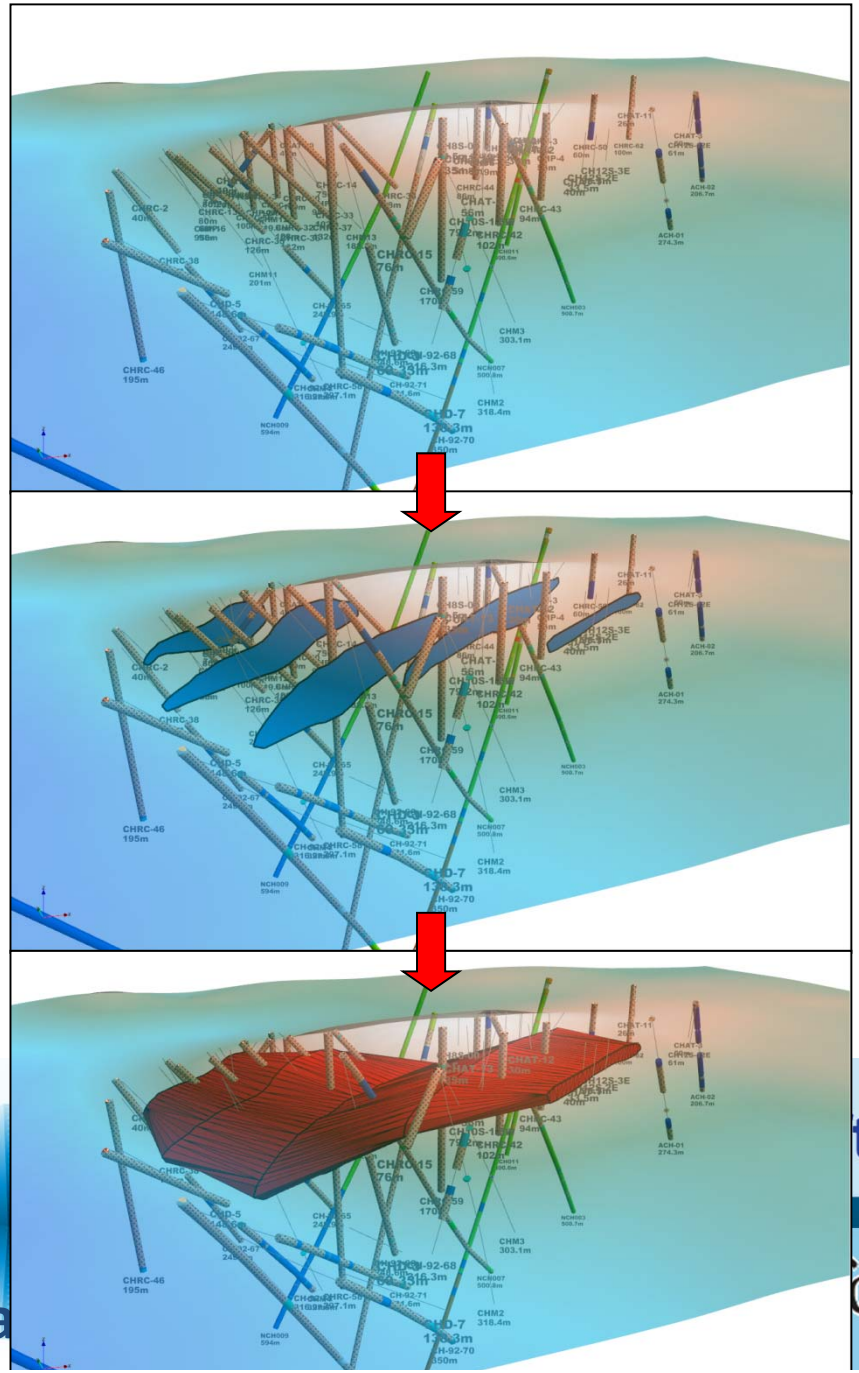
Generate level plans and strip logs, as well as non-linear, long- and cross-sections.

Seamless integration with 3D for more advanced modeling



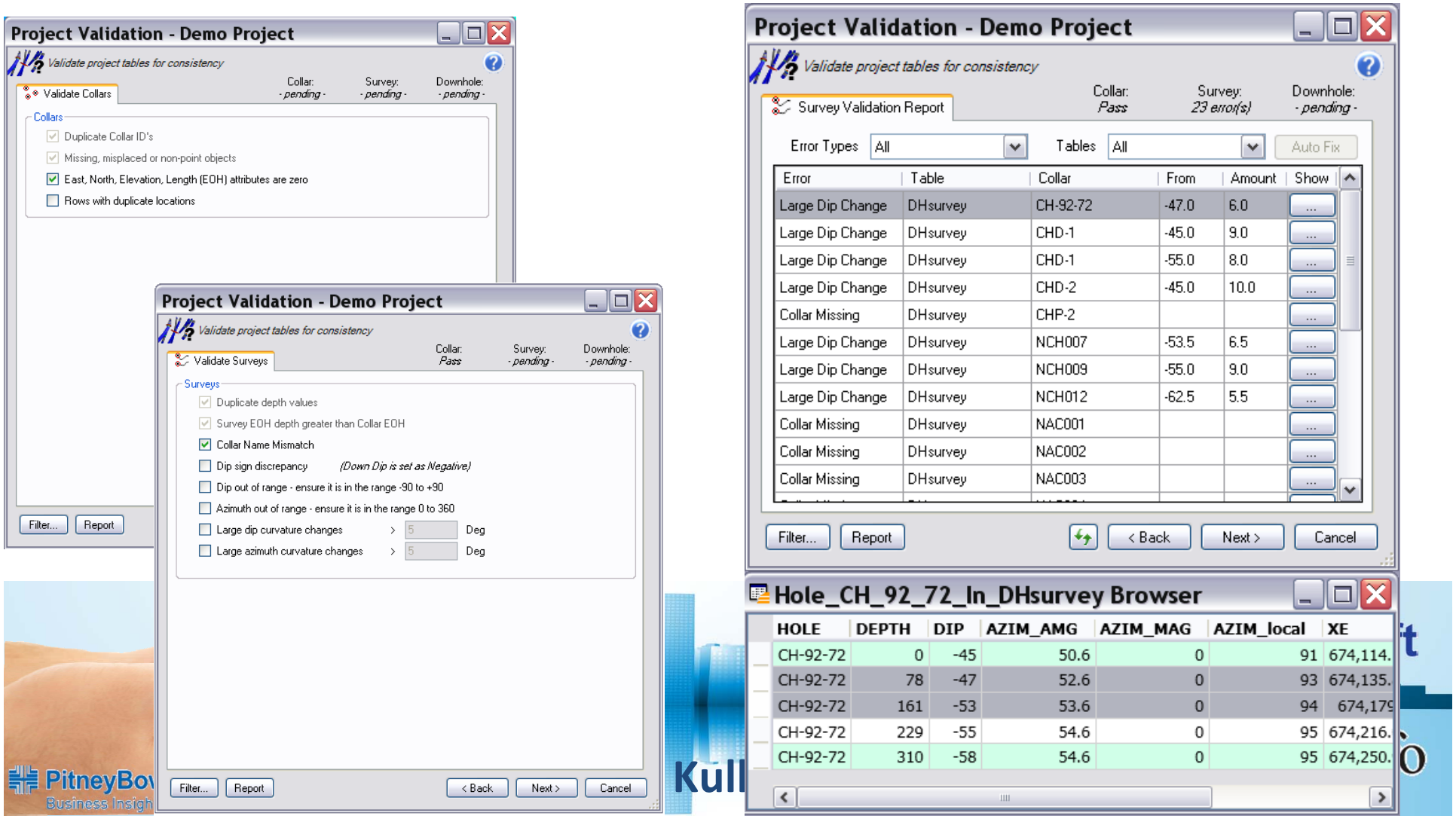

Alpha Collar Map
Line125
Line120
Line115
Line110
Line105
NCH009
NCH011
NCH012
CHRC-62
CHRC-49
CHRC-50
ACH-02
ACH-01
CHRC-2
CHRC-46
CHD-5
CHM2
CHM3
NCH001
NCH004
CH-92-71
CIIRC-42
CH12S-2E
CHP-3


Line110B,Line110A,...,Line110S Map
Line105B,Line105A,...,Line105S Map
Line115B,Line115A,...,Line115S Map
Line120B,Line120A,...,Line120S Map
Line125B,Line125A,...,Line125S Map

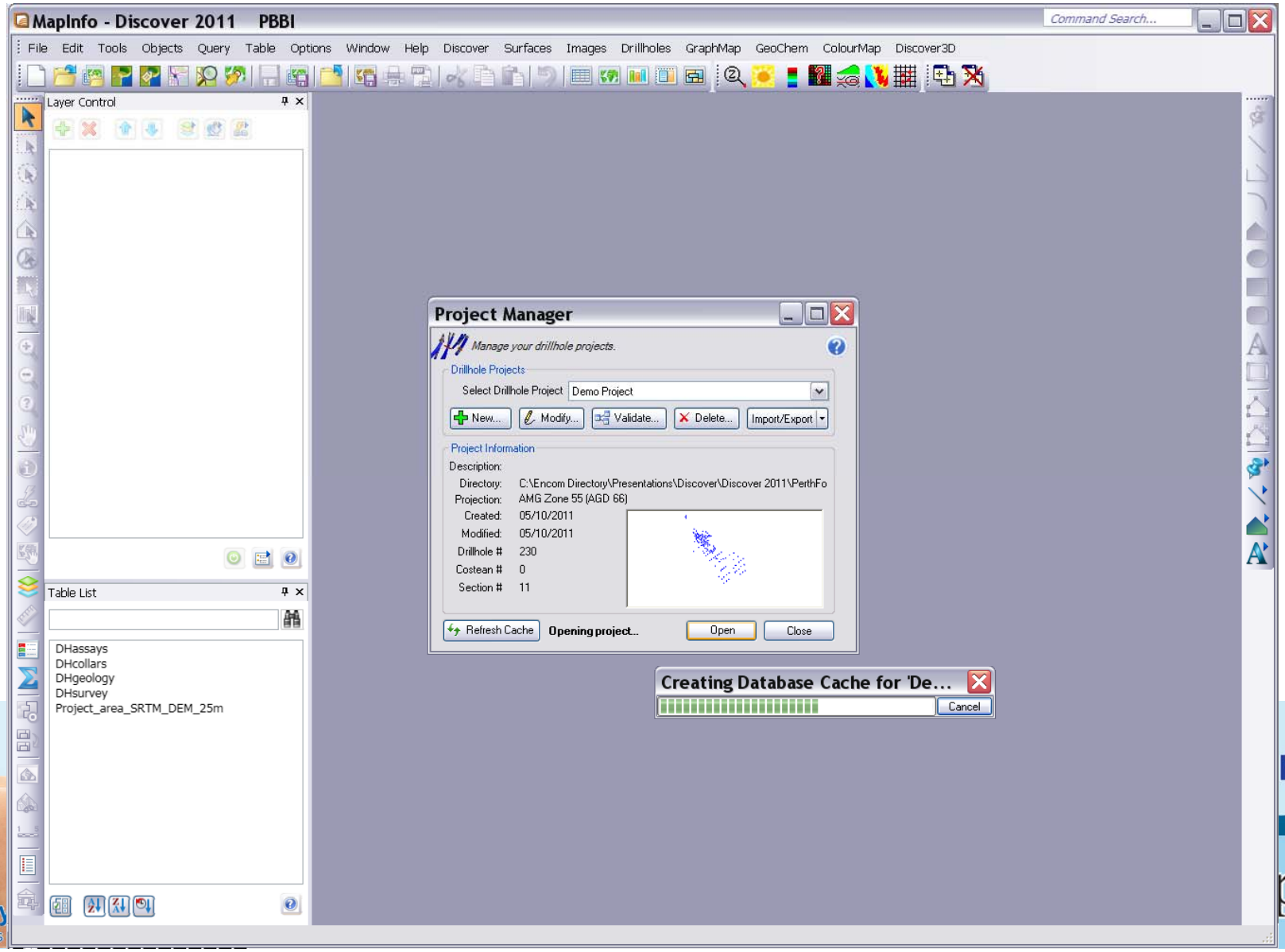


Drillhole Improvements

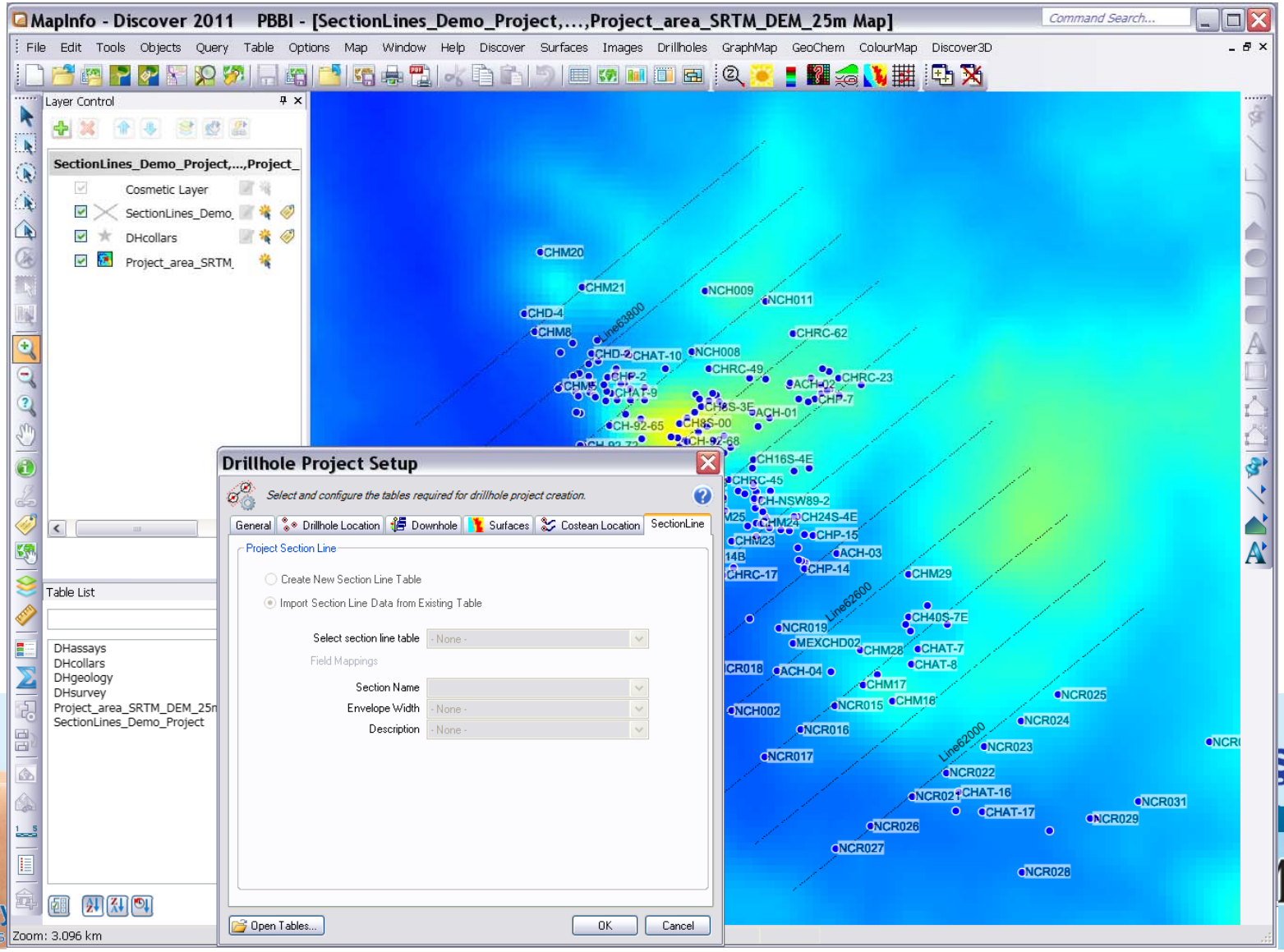
Robust Validation engine



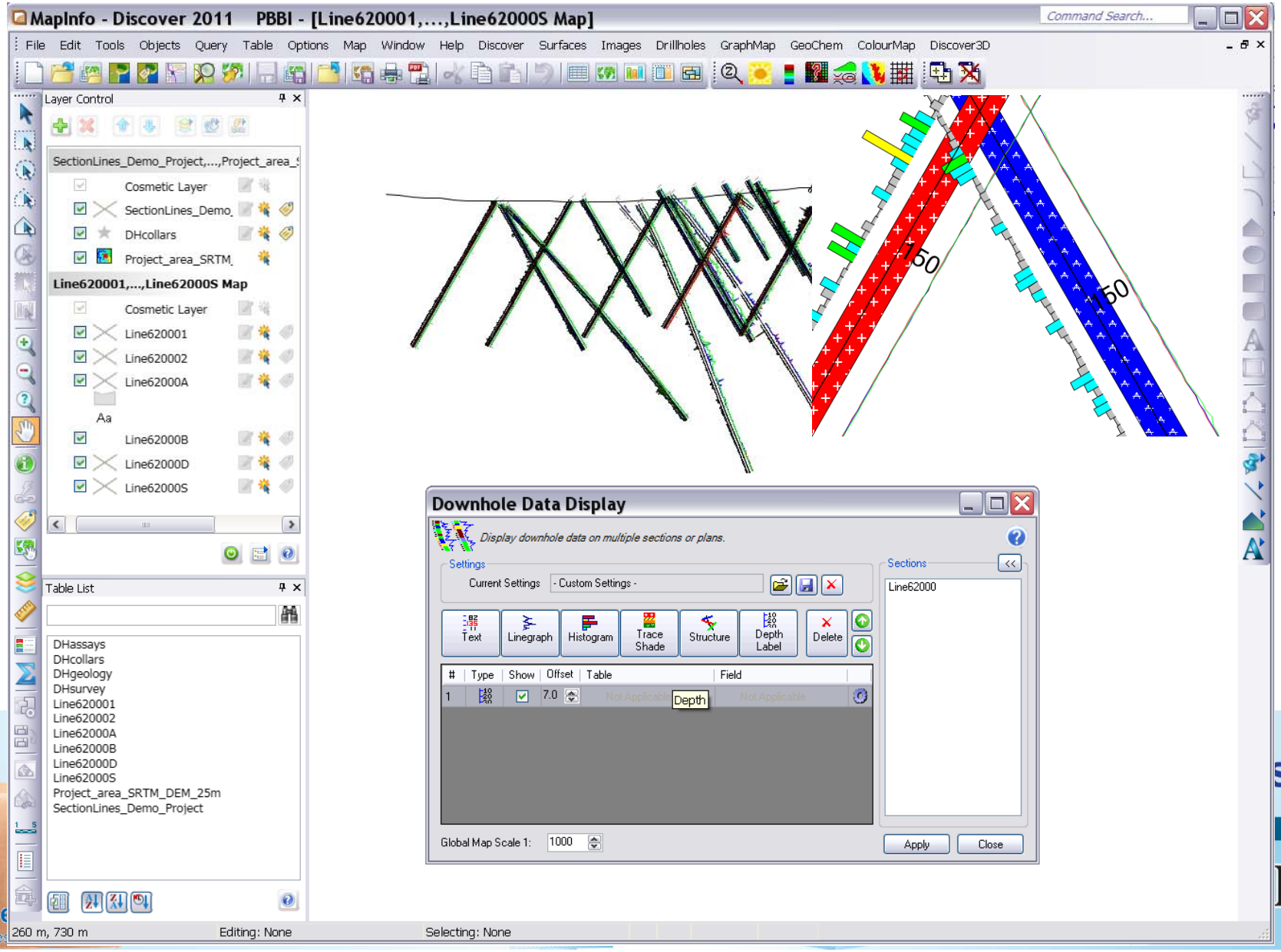
SQL database - Providing significant data access and section rendering efficiencies



Section Lines - Are now stored as part of the project, allowing effortless section creation and regeneration (section names, envelopes are inherent).



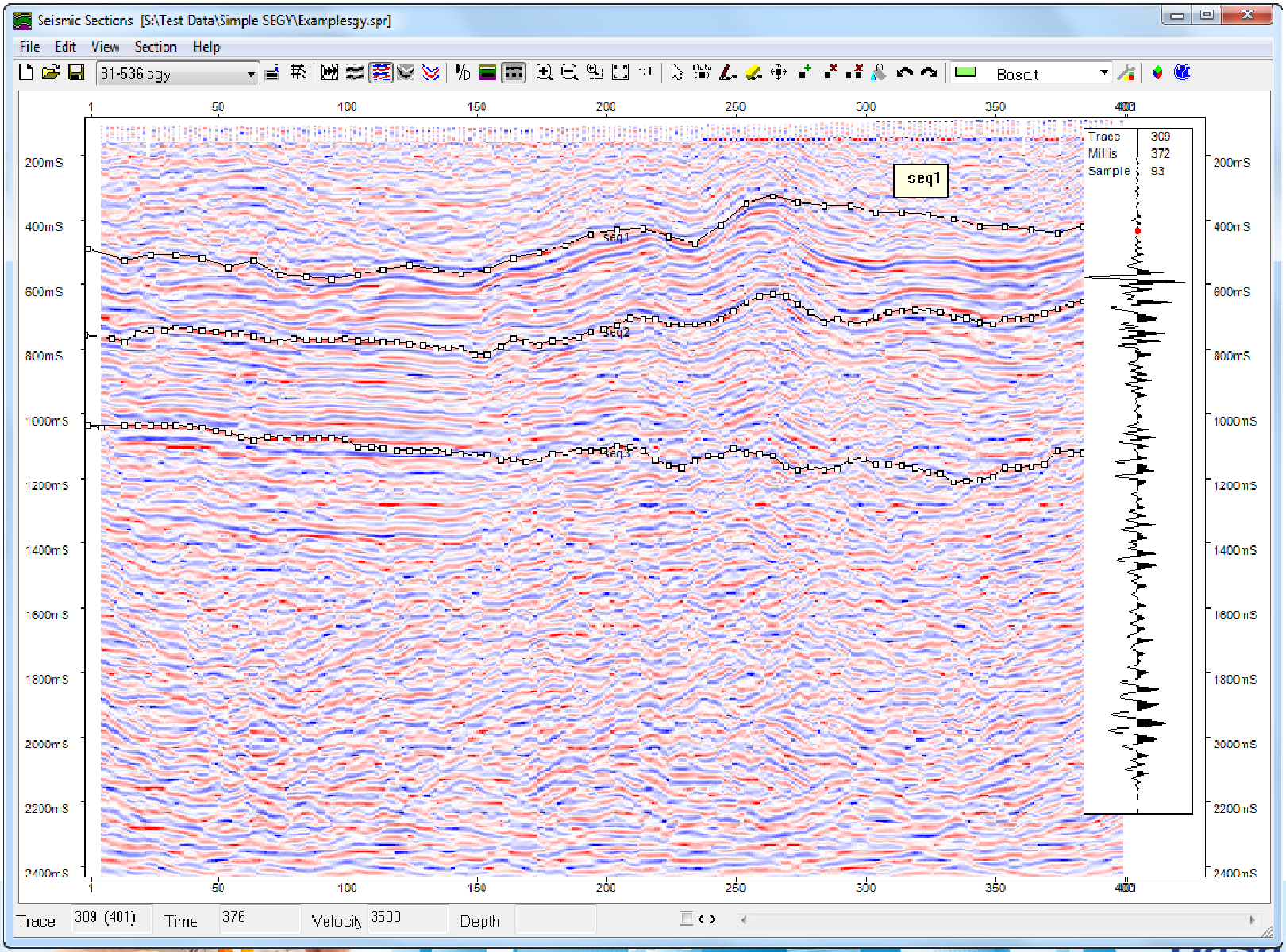
Depth labels can be refined/altered in Display Downhole Data tool, preventing overprinting etc.

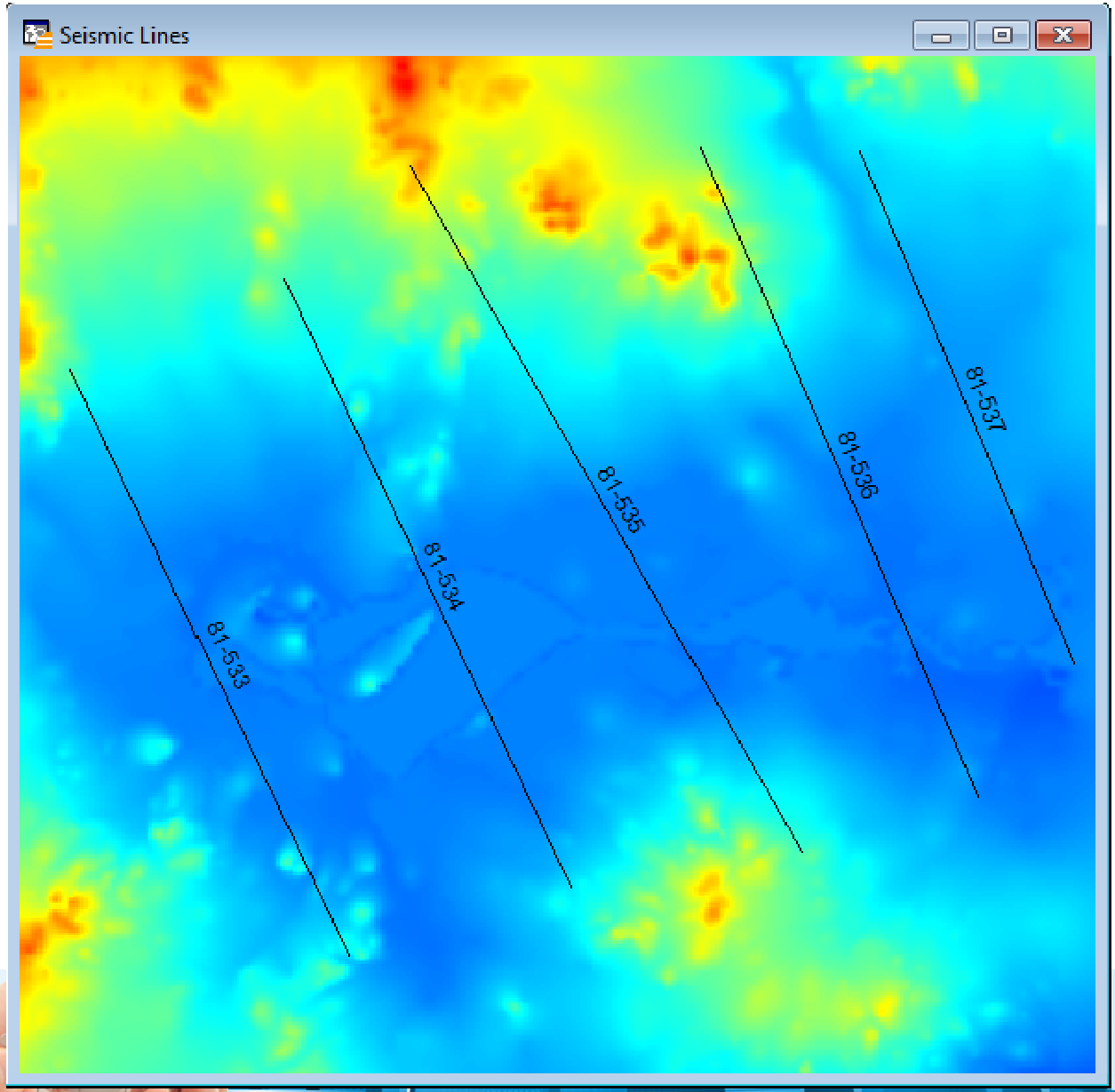


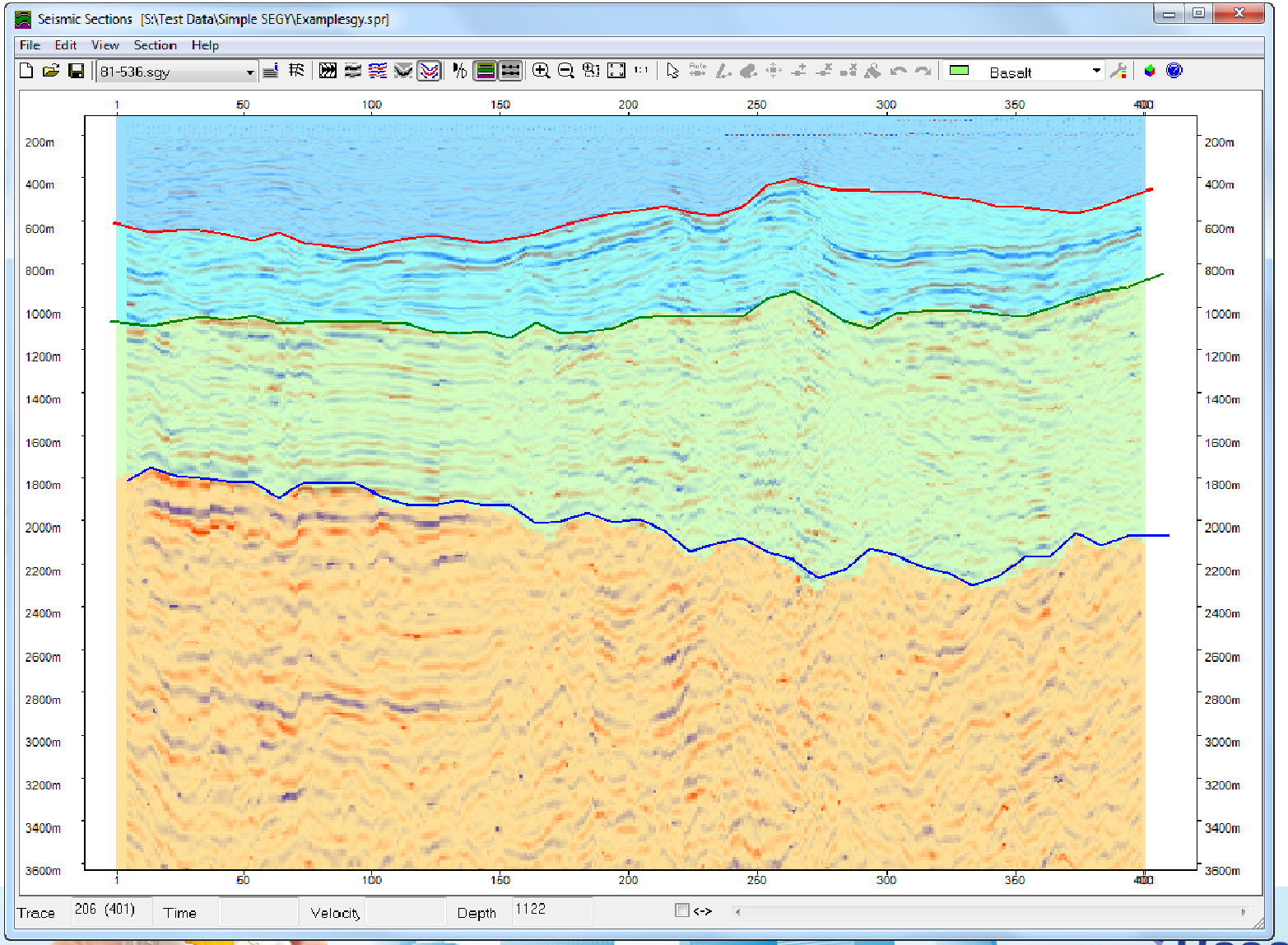
Seismic Interpolation

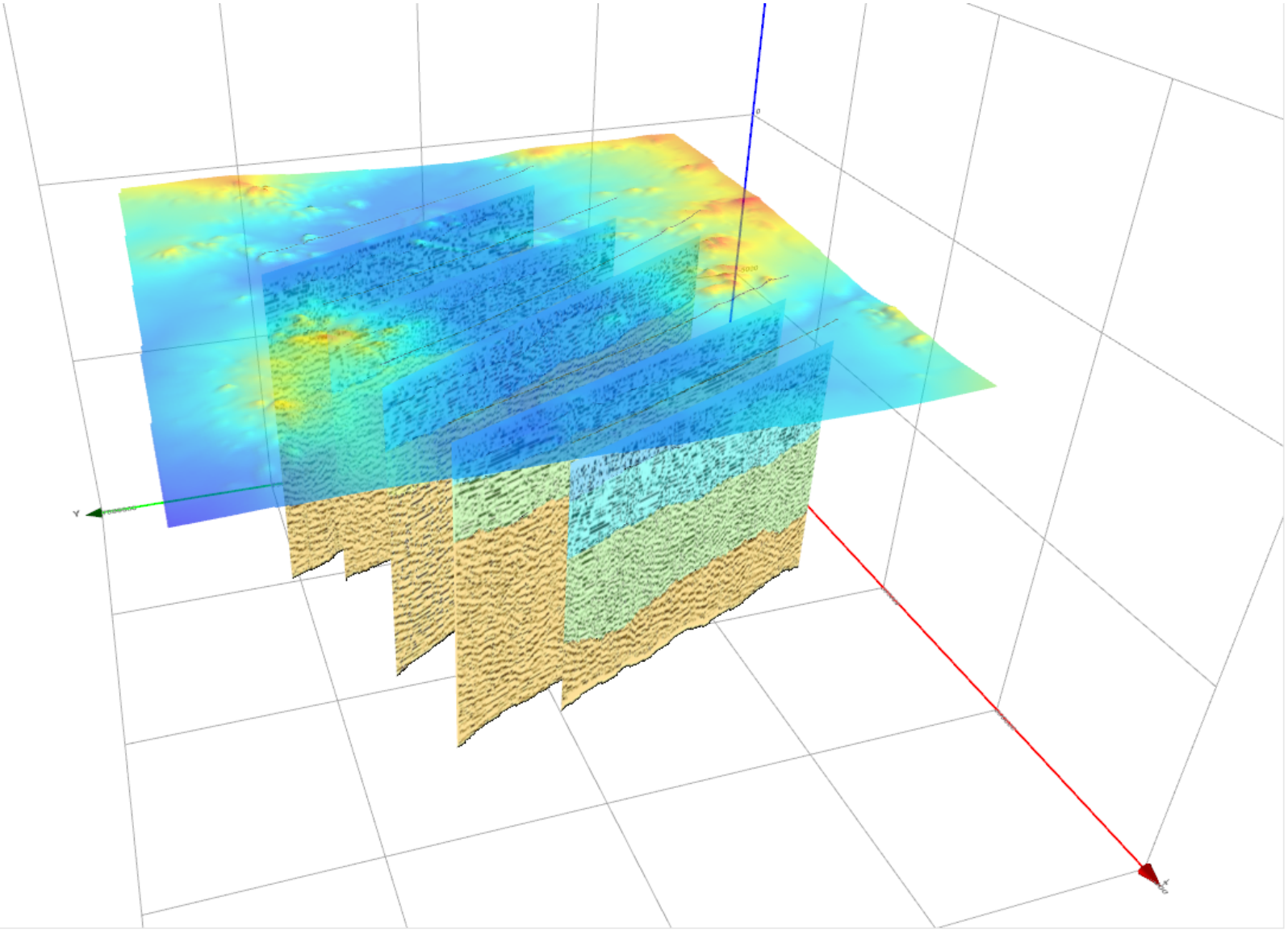
Correlate seismic features across multiple sections with new horizon and fault labelling functionality

Seamlessly attribute your 2D seismic interpretations with 3D datasets, by exporting them as full-attributed Discover 3D vector datasets (including horizons, faults and velocity regions)

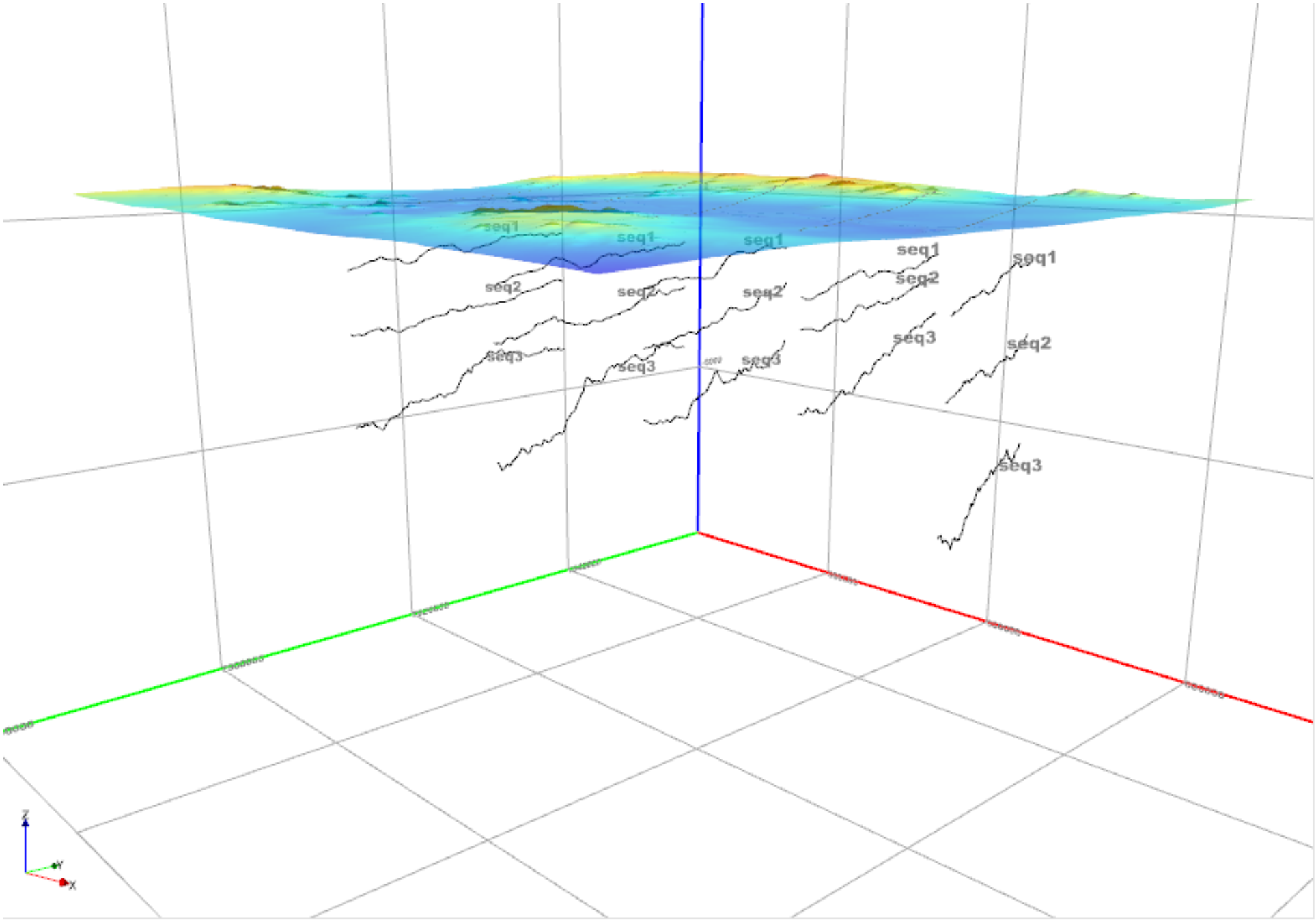


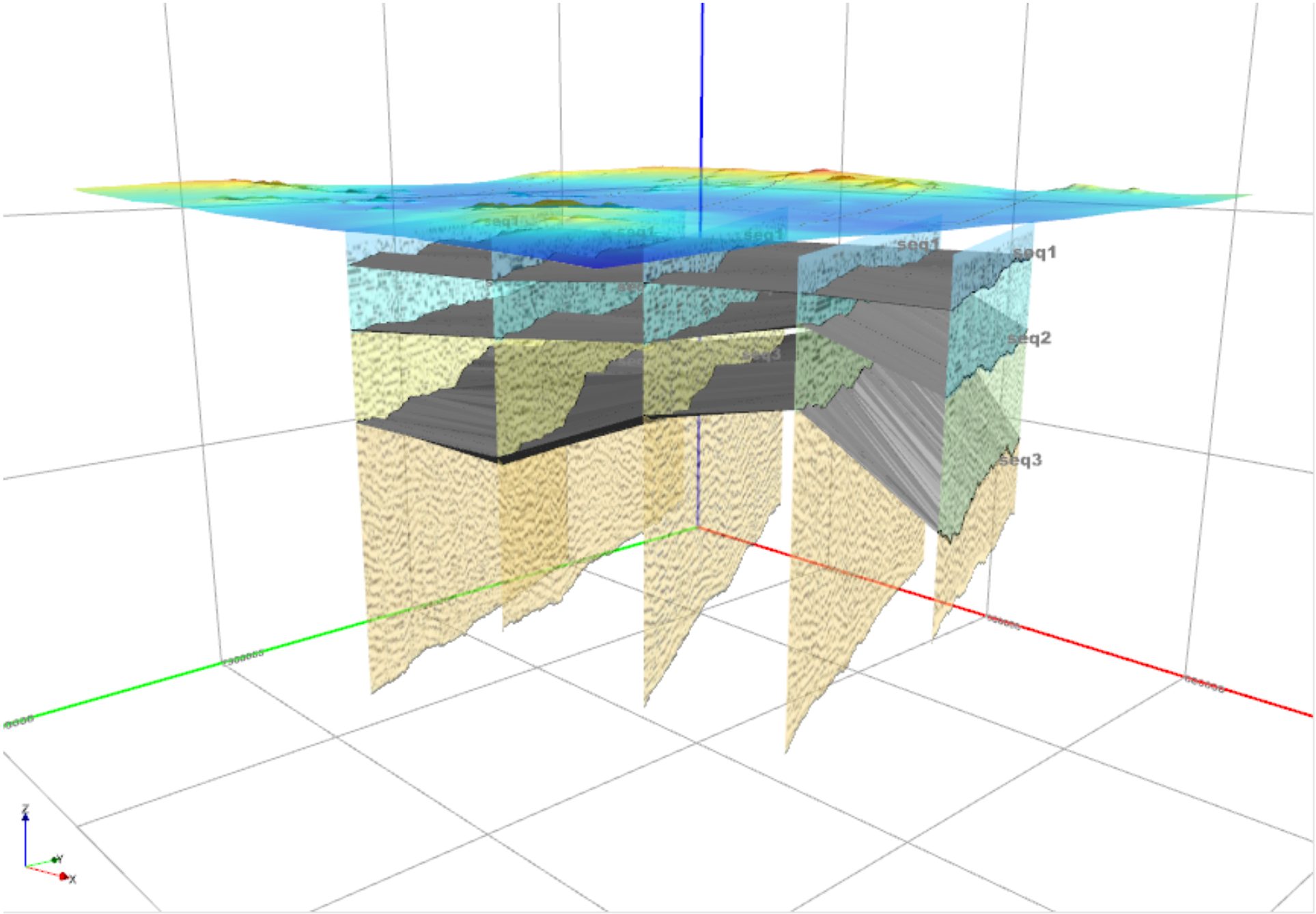

Seismic Lines
81-533
81-534
81-535
81-536
81-537






PitneyBowes
Business Insight
6. MapInfo Kullanıcılar Konferansı
Başarsoft
MapInfo


seq1
seq1
seq1
seq1
seq1
seq2
seq2
seq2
seq2
seq2
seq3
seq3
seq3
seq3
seq3
Z
Y
X

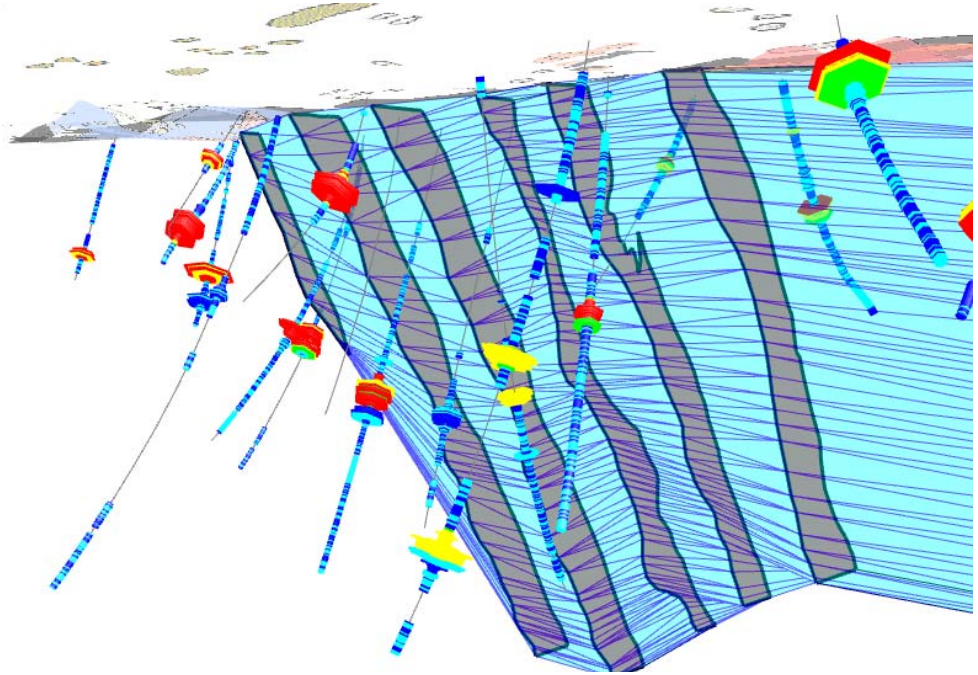

seq1
seq2
seq3
Z
Y
X

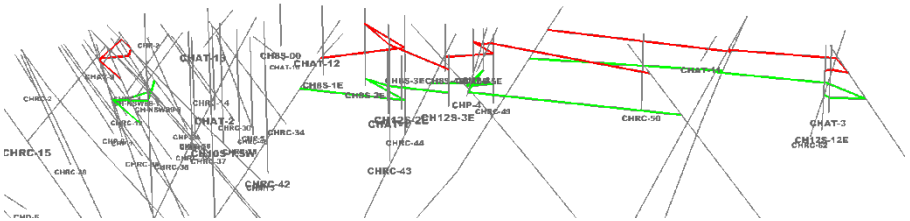
3D Modeling

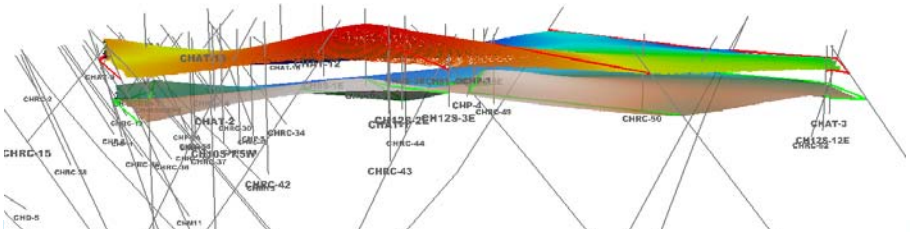
Wireframing

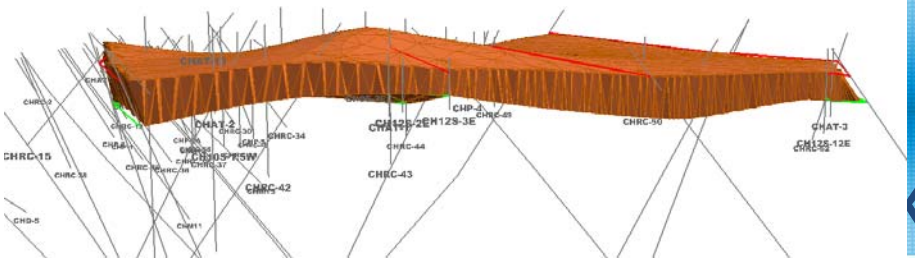
Surface interpolation in 3D

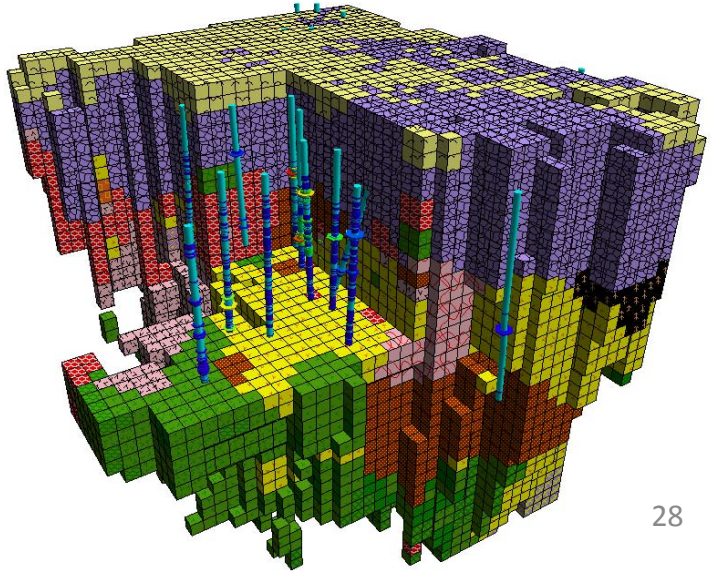
3D Grid/Voxel model Interpolation











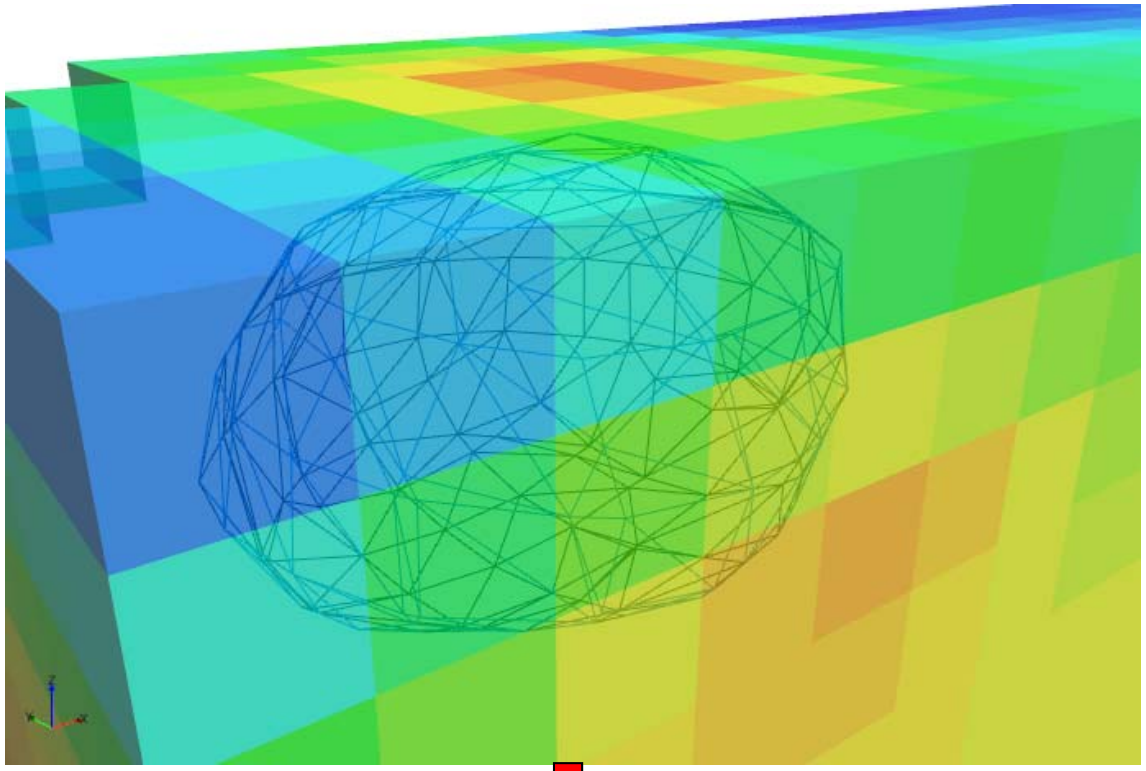
New Voxel Utilities

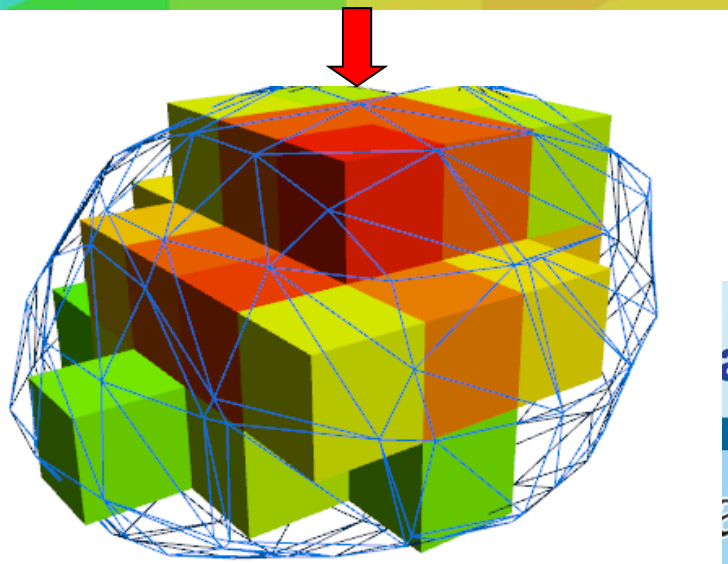
Assign Values to Vector

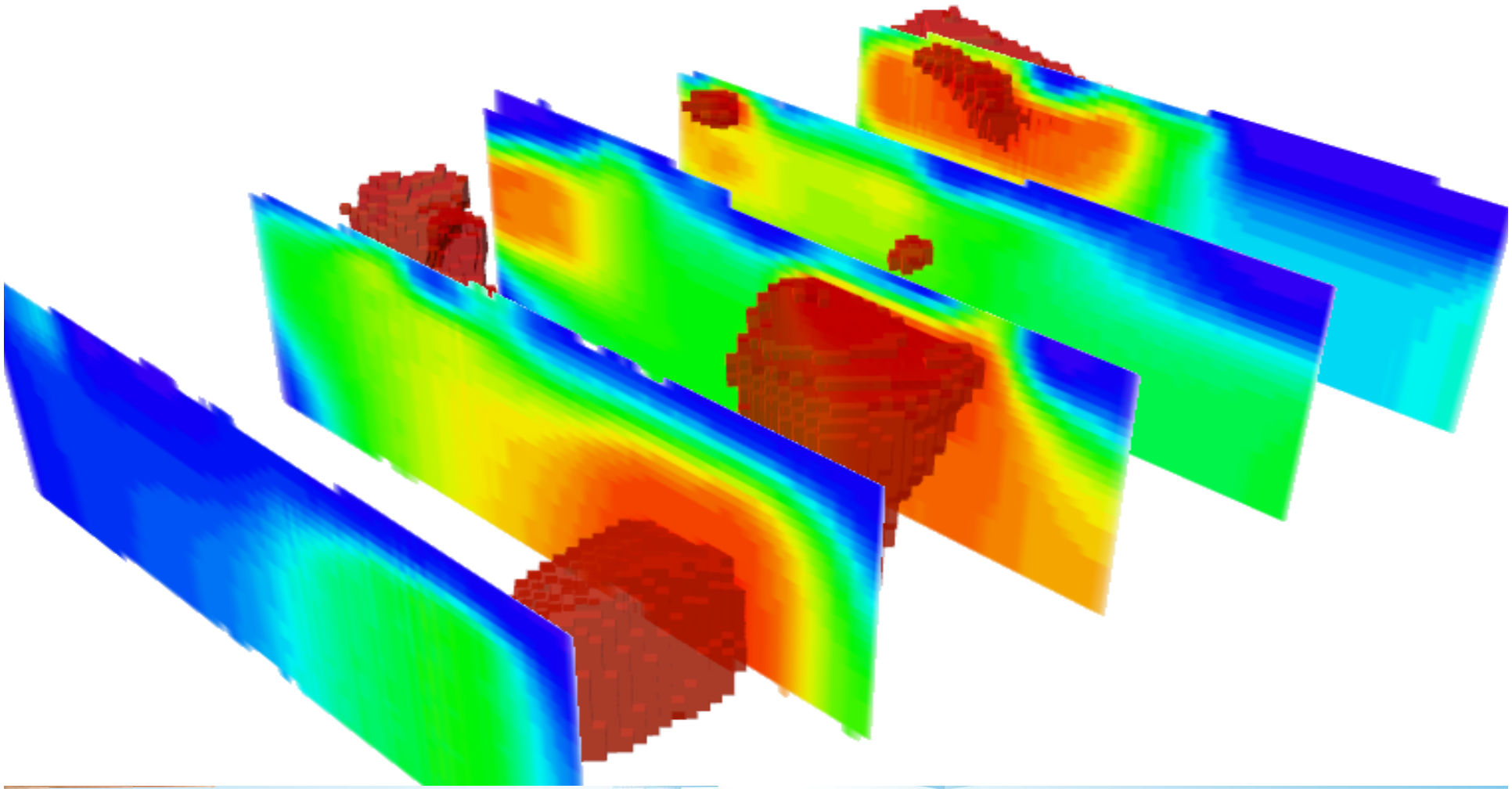
Clip to Surface

Clip Voxel to Volume

Convert Vector to Voxel







Questions


PitneyBowes
Business Insight
6. MapInfo Kullanıcılar Konferansı
Başarsoft
MapInfo