

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

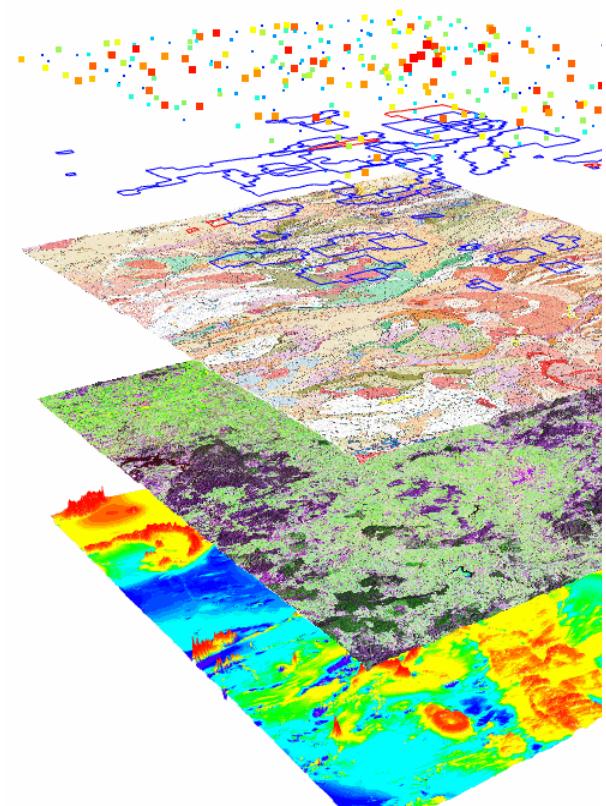
Geophysics

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

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

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

The screenshot displays three windows from the MapInfo Pro interface:

- Table List Window:** Shows a list of tables: ISA_DRAINAGE_1M, Isa_Geology, Isa_Geology_Province, ISA_ROADS_1M, and ISA_TOWNS_NAMED_1M. A context menu is open over the Isa_Geology_Province table, with "Show Info..." highlighted.
- Table Information Window:** Displays projection details for the Isa_Geology_Province table. The "Path" is C:\Users\alexz\Data - Normal\Mt Isa\Geochemistry\Isa_Stream_Geochem.TAB. The "Projection" settings include:
 - Name: AMG Zone 54 (AGD 84)
 - CoordSys: CoordSys Earth Projection 8, 13, "m", 141, 0, 0.9996, 500000, 10000000 B
 - Projection: Transverse Mercator (Gauss-Kruger)
 - Datum: Australian Geodetic 1984 (AGD 84)
 - Ellipsoid: Australian National
 - Units: Meters
 - Scale Factor: 0.9996
 - Origin (Longitude): 141
 - Origin (Latitude): 0
 - Standard Parallel 1: 500,000
 - Standard Parallel 2: 10,000,000
 - Azimuth: 0
- Table Structure Manager Window:** Compares the structure of DHcollars (Base Table) with DHgeology (Compare With). The comparison results table shows the following data:

Field Name	Type	Size	Base Table: DHcollars	Table 1: DHgeology	Size
Hole	Char(10)	1	Hole	Char(10)	1
East_AMG	Float	2			
North_AMG	Float	3			
RL	Float	4			
Azim_AMG	Float	5			
Dip	Float	6			
Total_Depth	Float	7			
East_local	Float	8			
North_local	Float	9			
Azim_local	Float	10			

Pitney Business Insight logo is visible at the bottom left.

Başarsoft and **MapInfo** logos are visible at the bottom right.

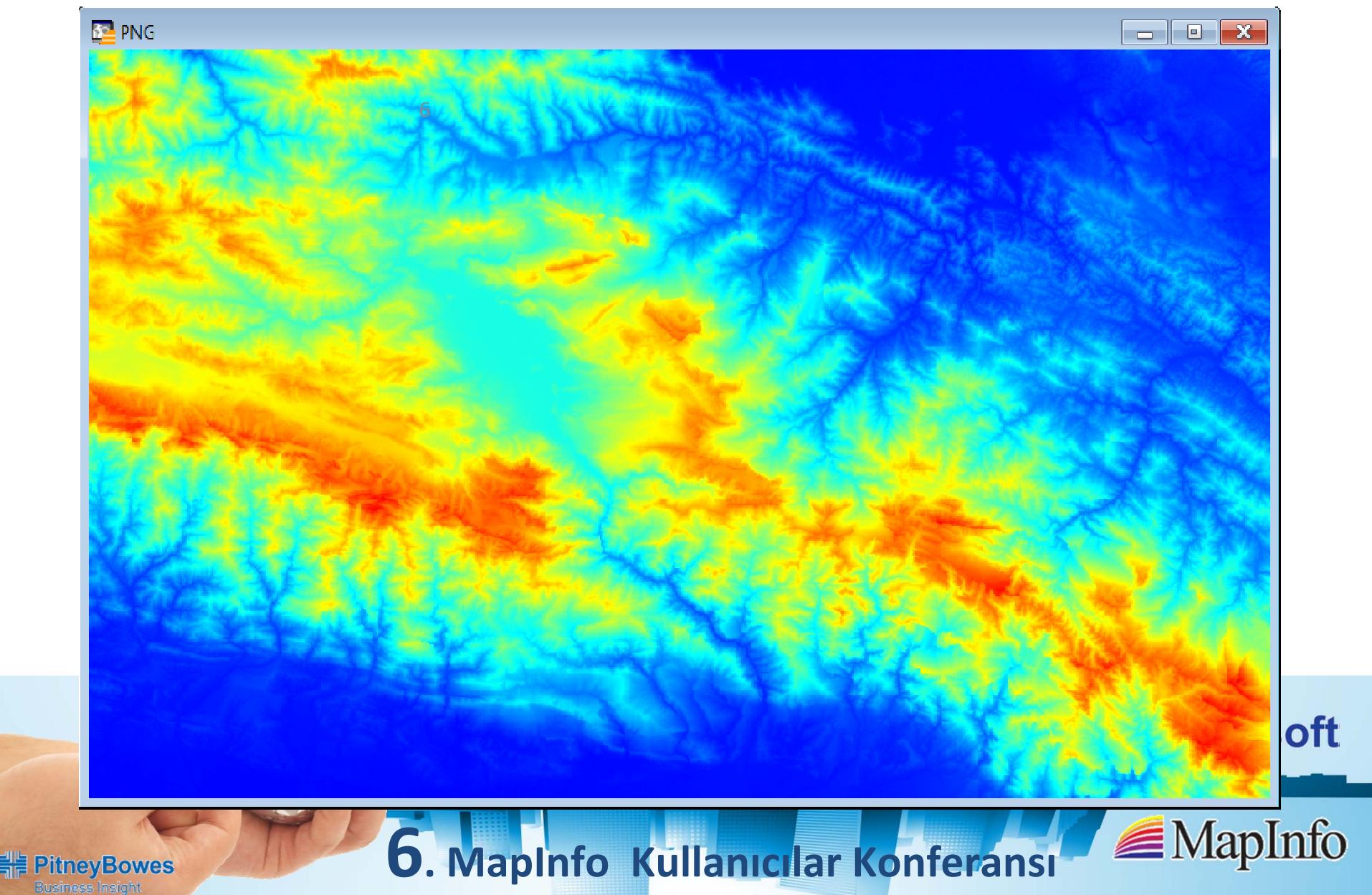
Surface Contouring

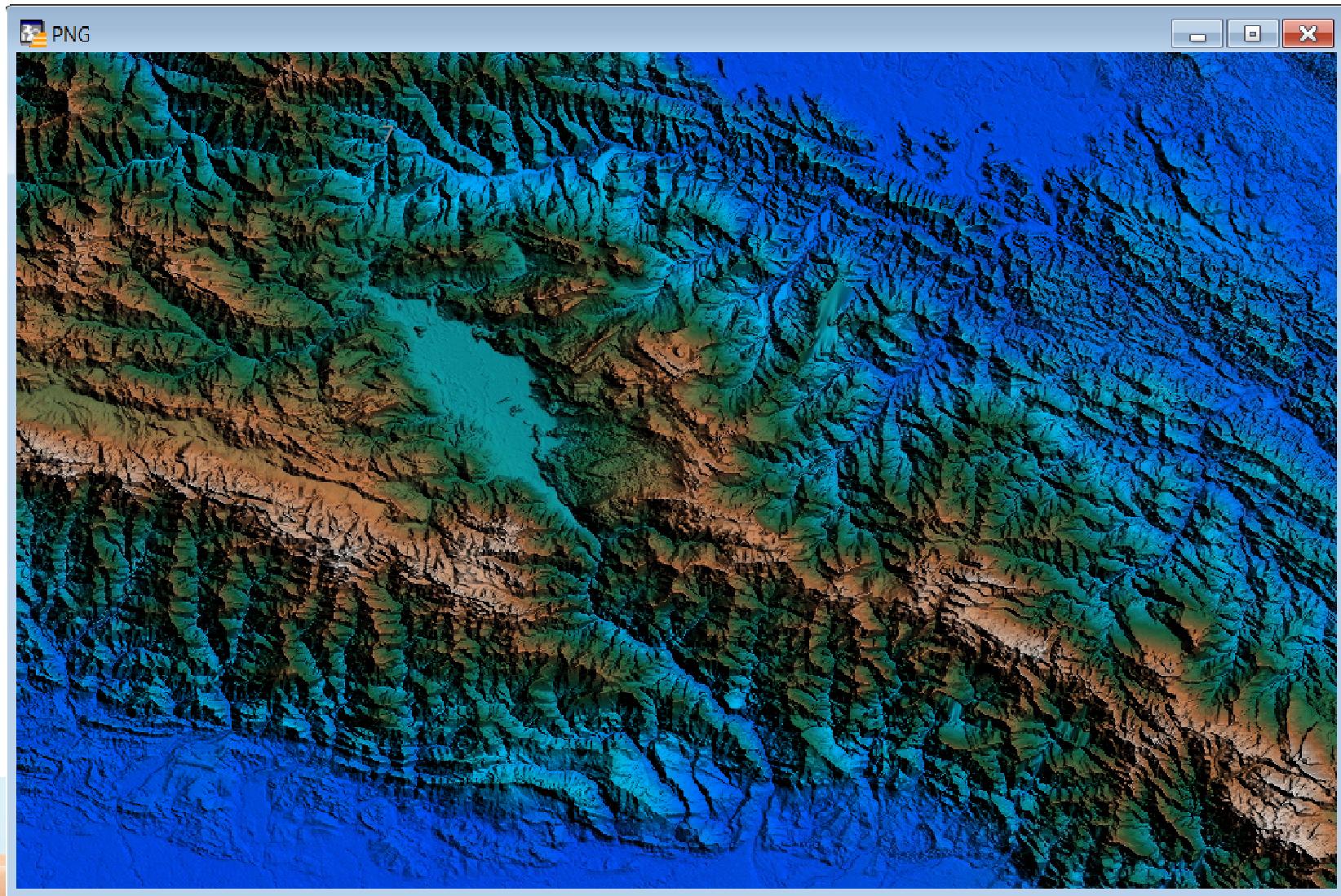
Completely new grid contouring engine supports very large (multi-gigabyte) grid datasets (such as continental scale LIDAR and SRTM data)

Supports multiple input grids i.e. tiled datasets

Can apply a user specified legend





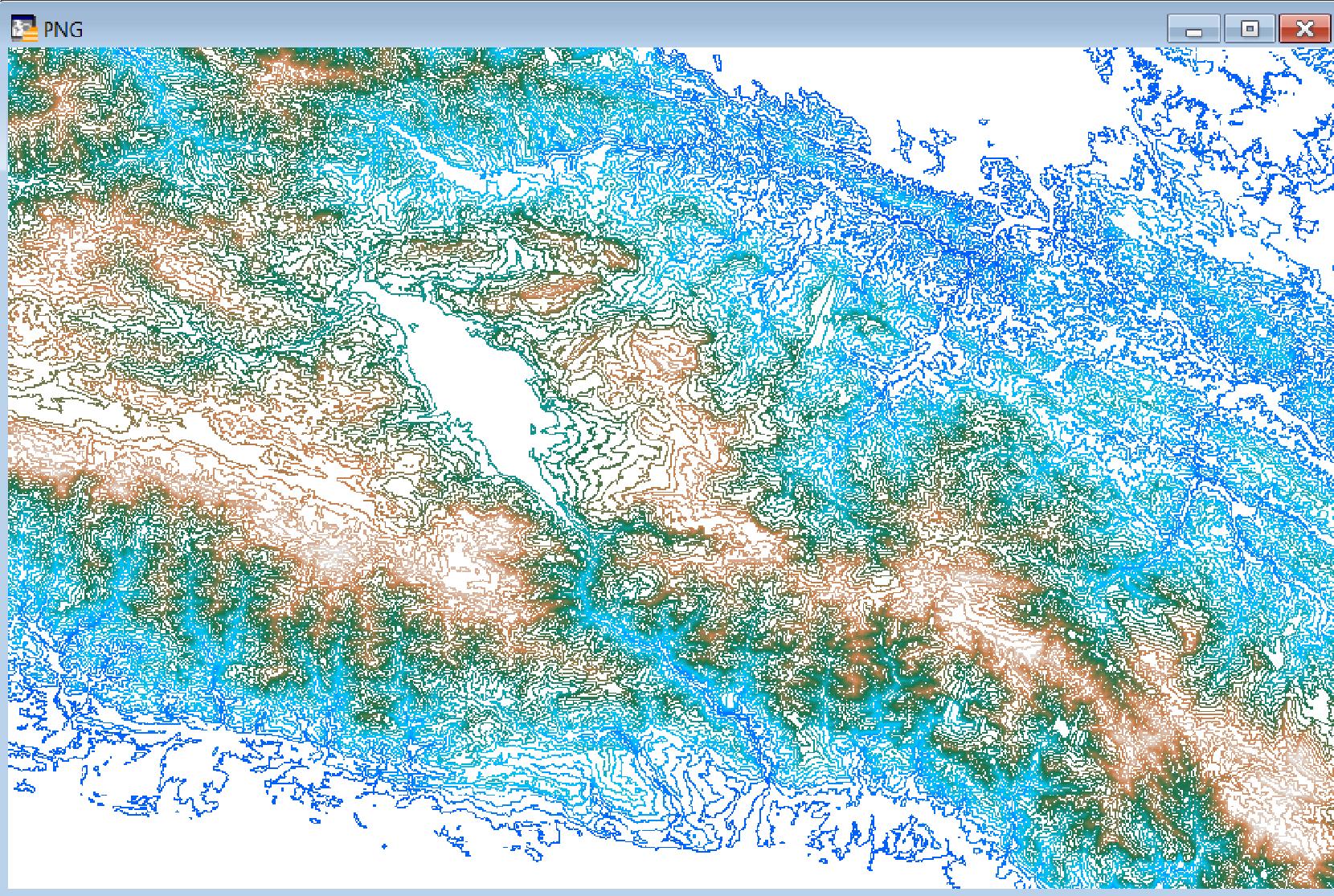


 Pitney Bowes
Business Insight

6. MapInfo Kullanıcılar Konferansı

 MapInfo

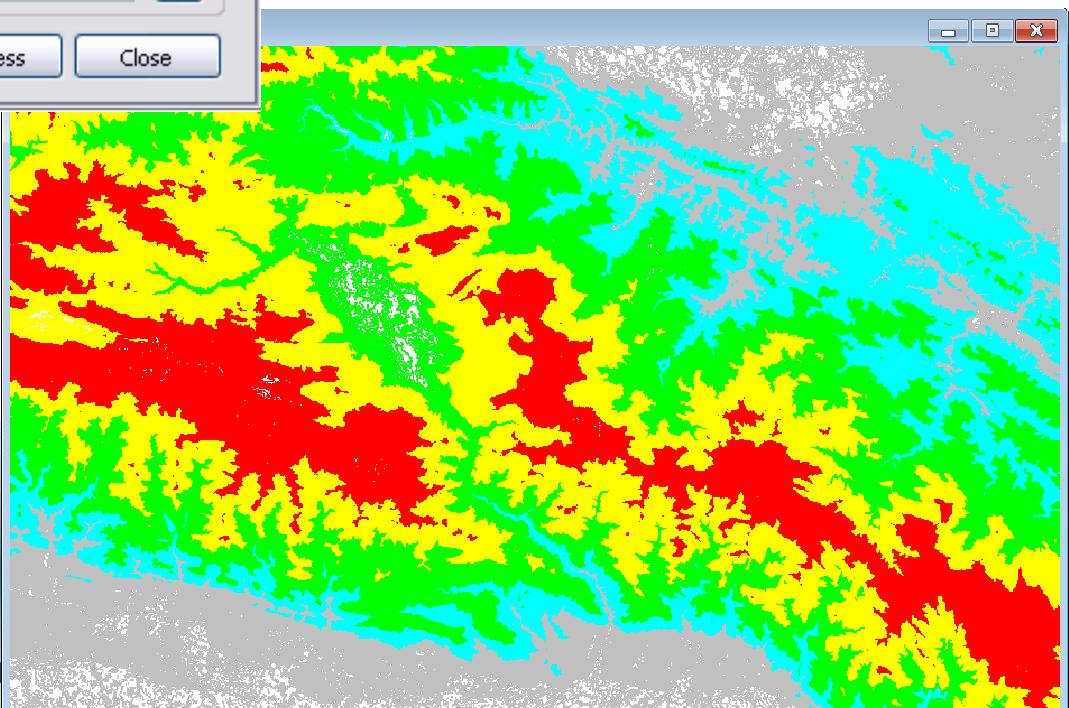
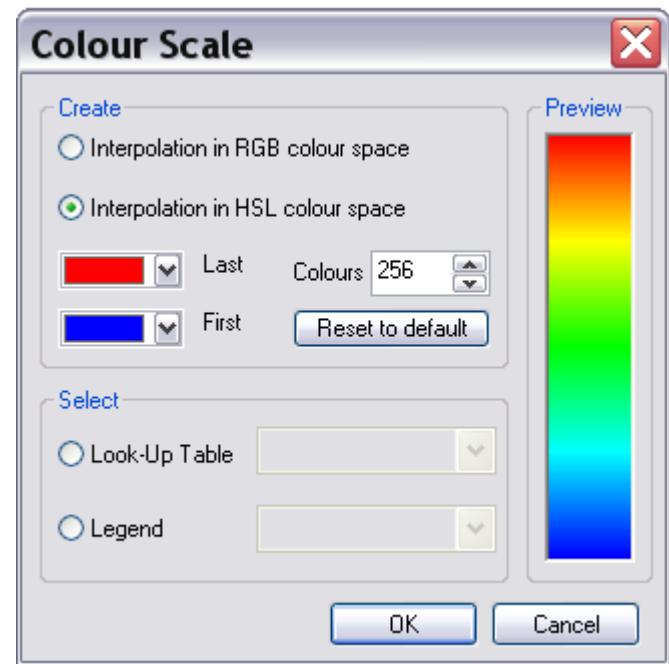
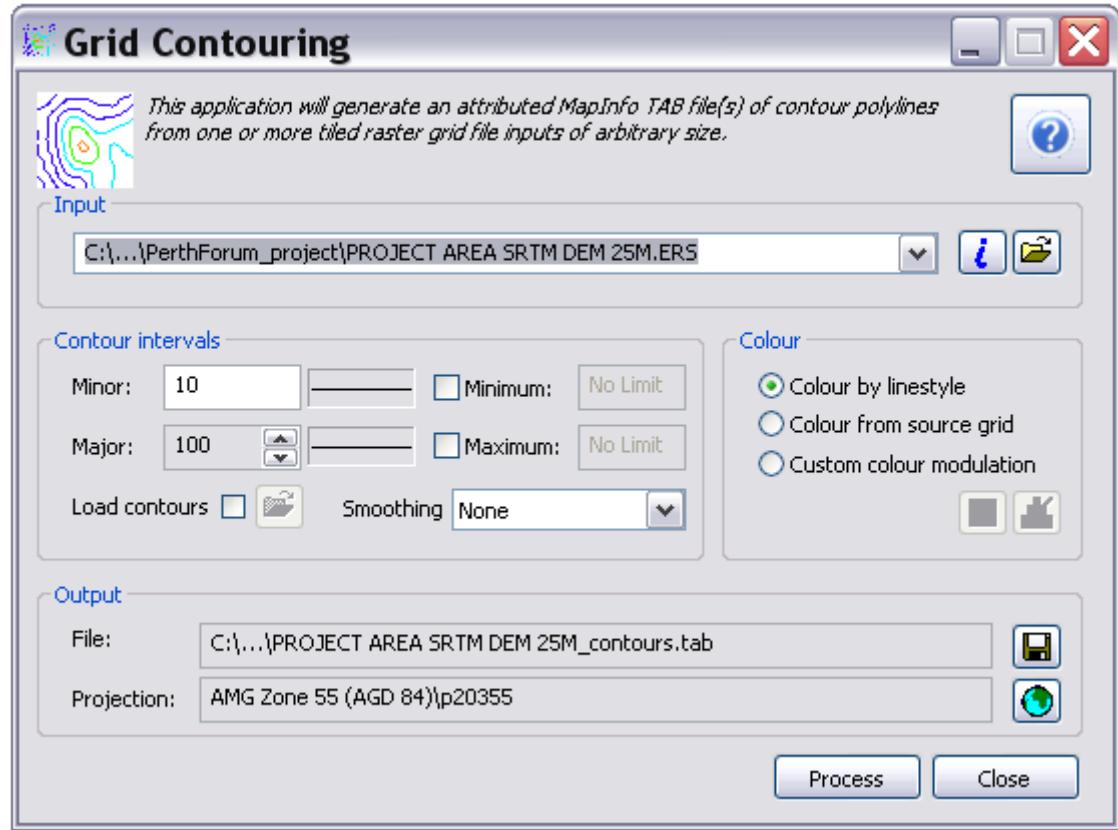
soft



 Pitney Bowes
Business Insight

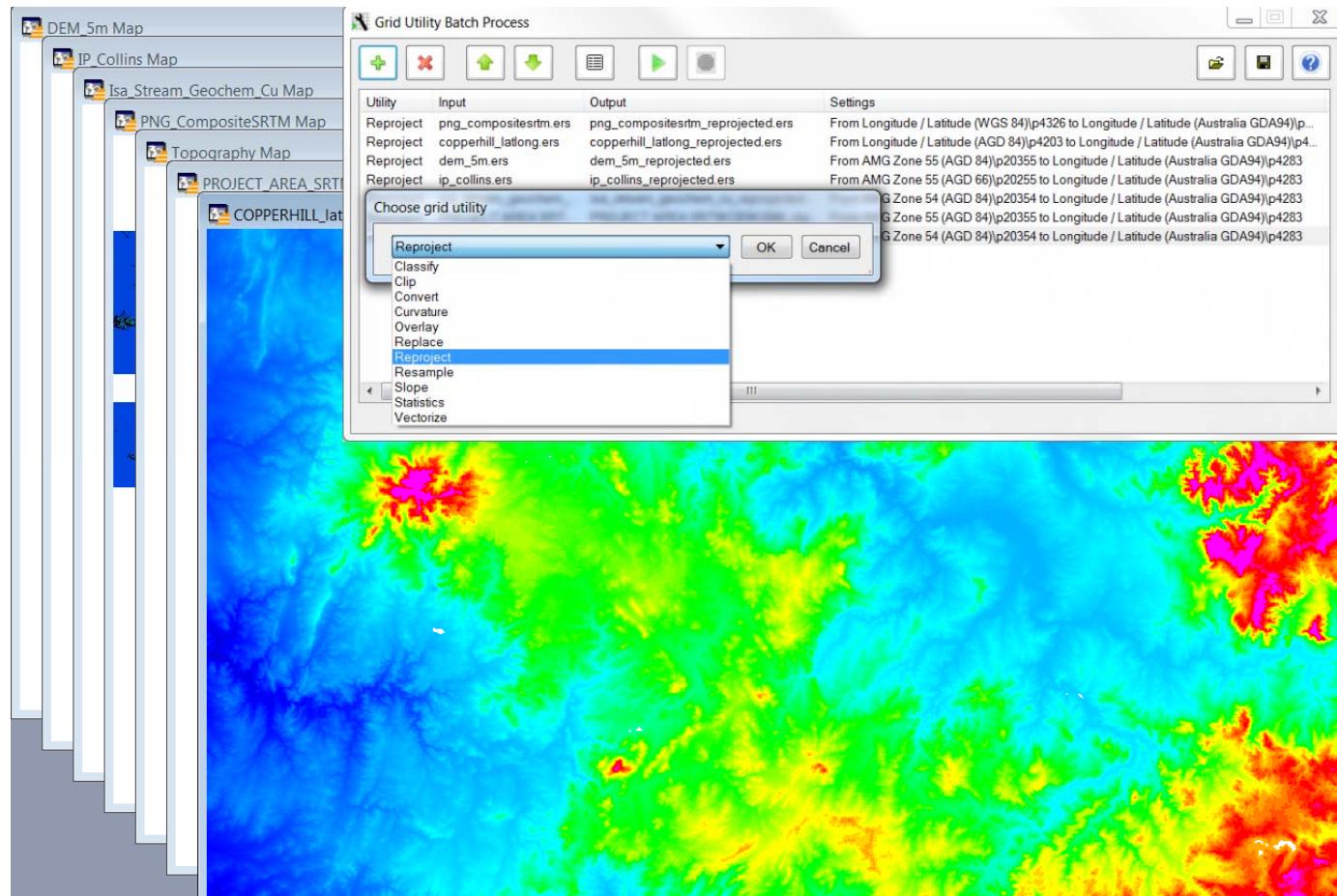
6. MapInfo Kullanıcılar Konferansı

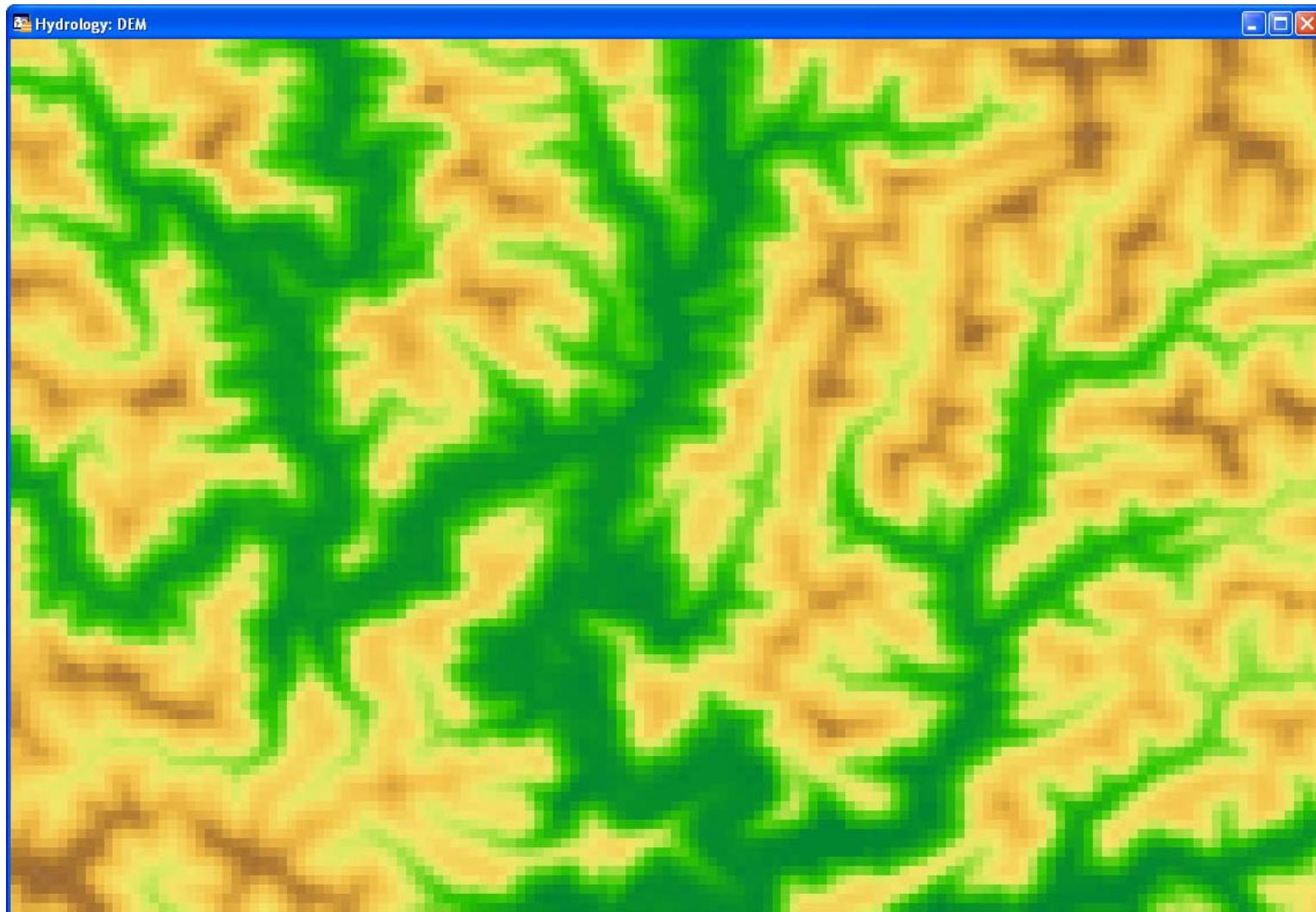
 MapInfo

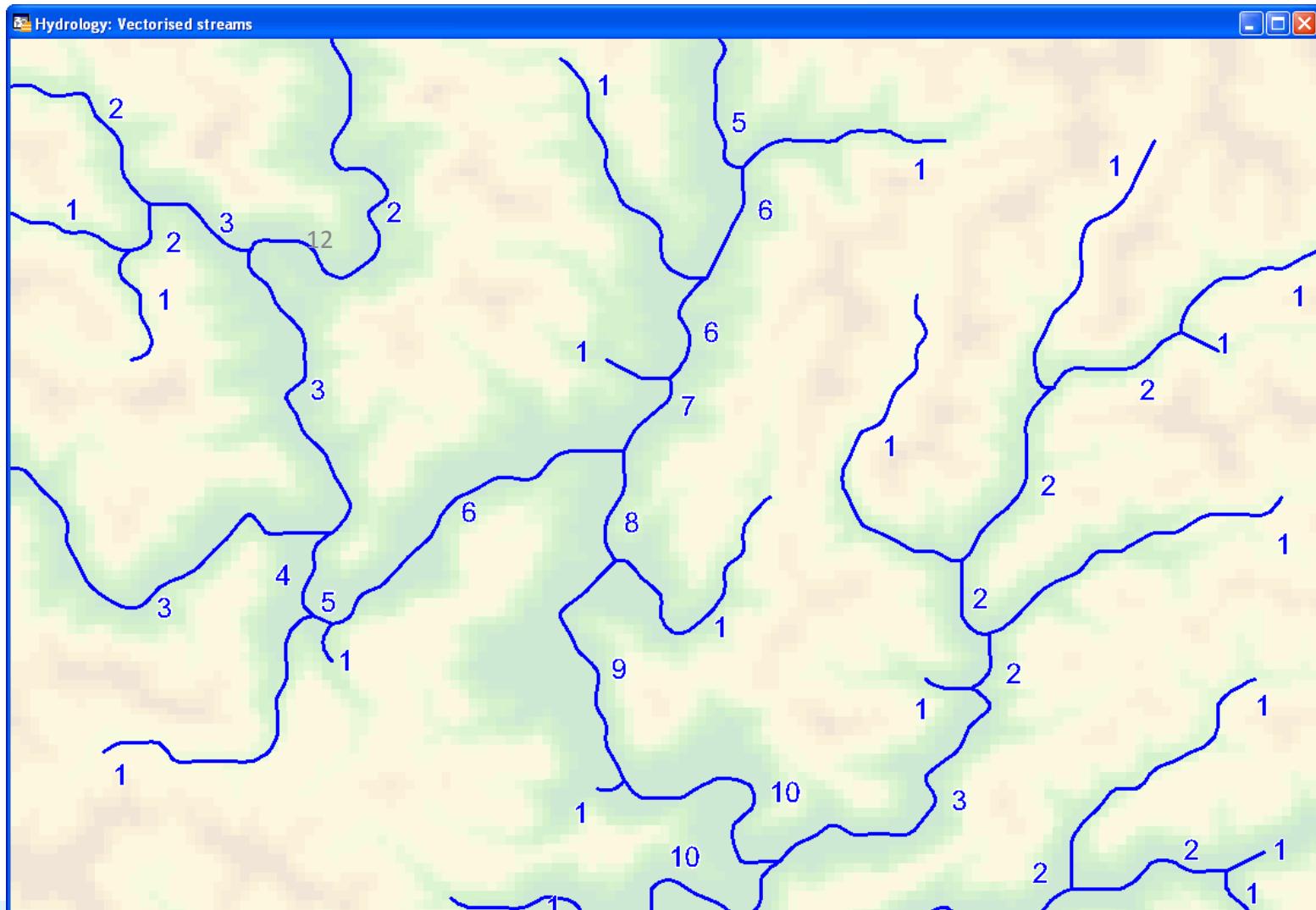


6. MapInfo

Batch Grid Processing





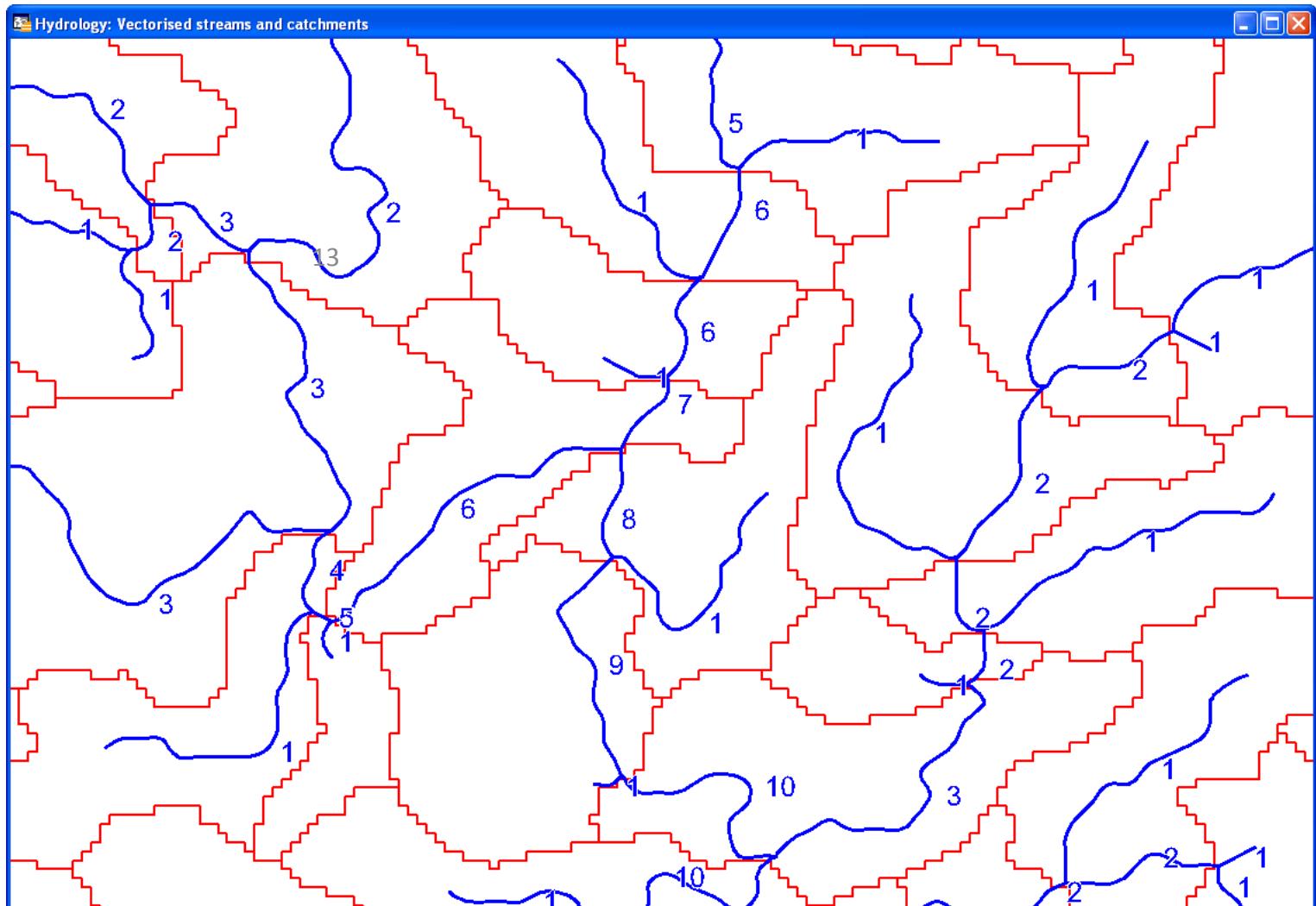


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6. MapInfo Kullanıcılar Konferansı

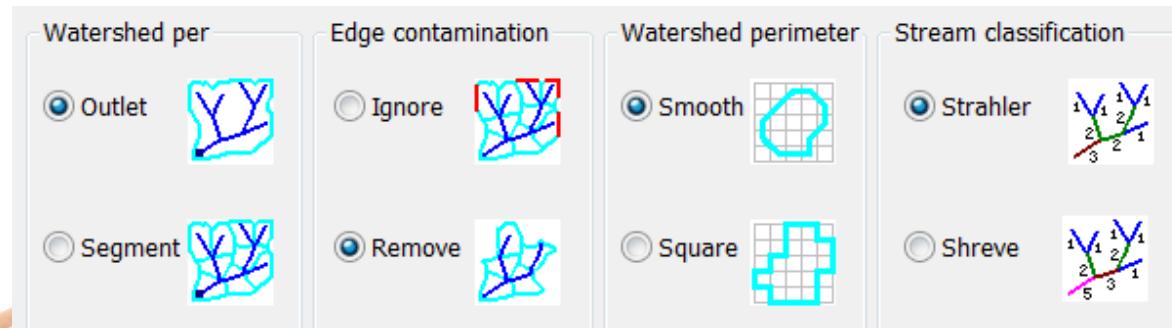
Başarsoft

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.

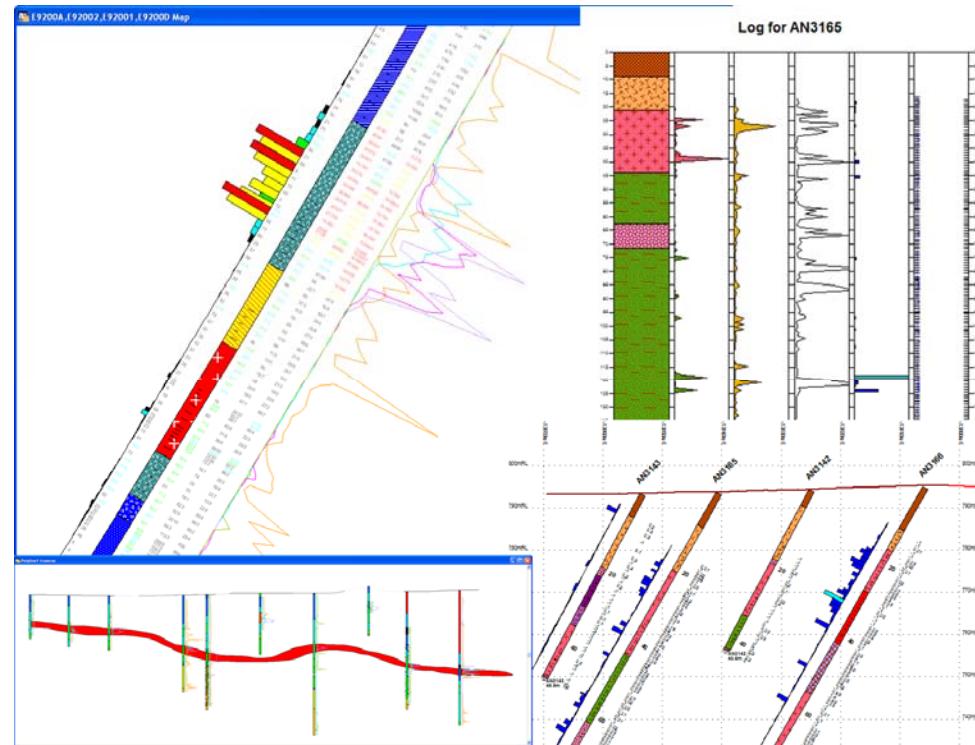


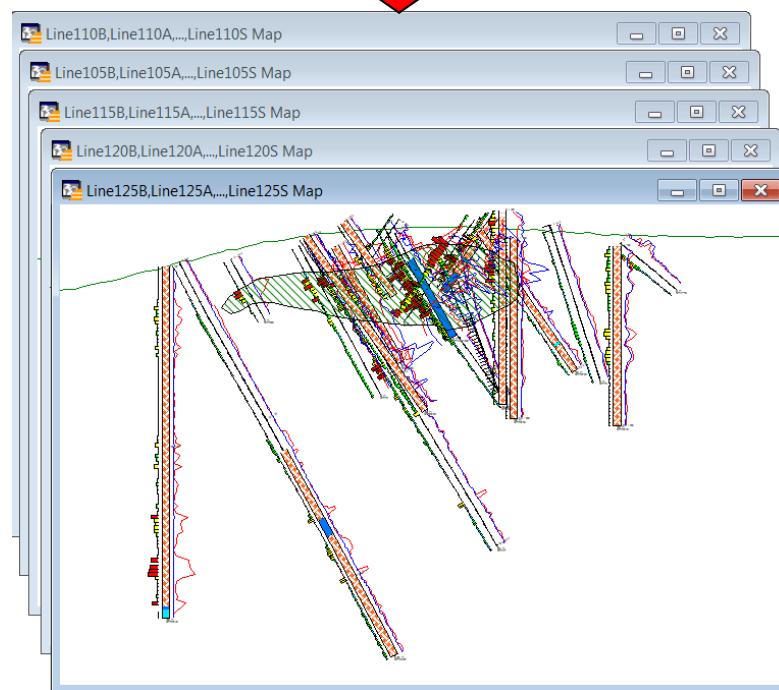
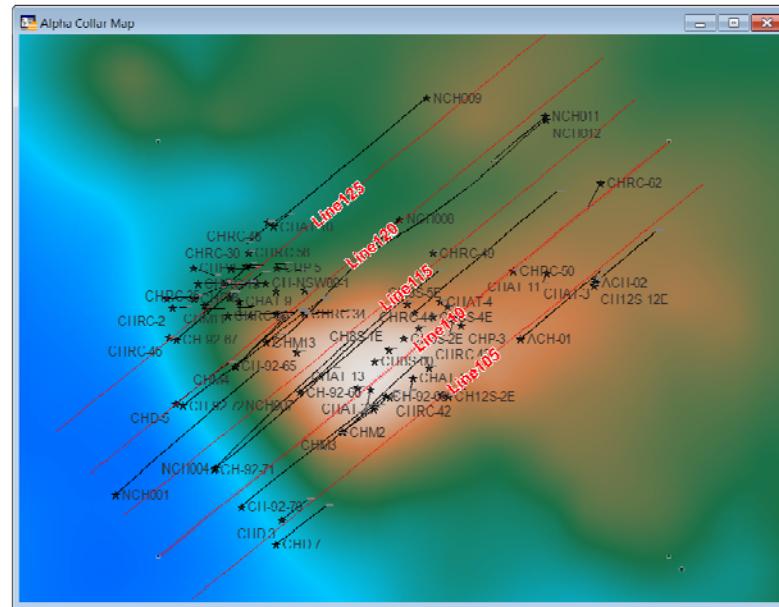
Drillholes

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

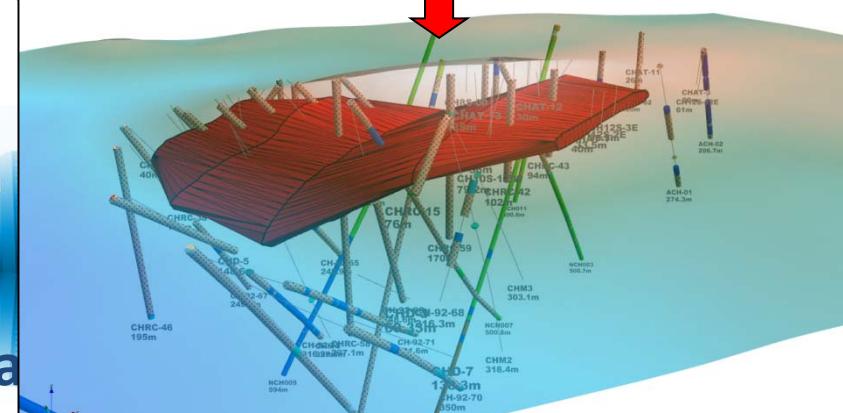
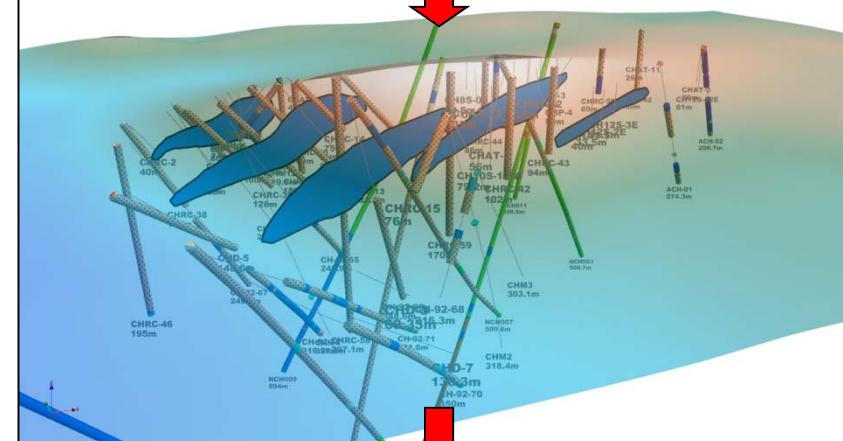
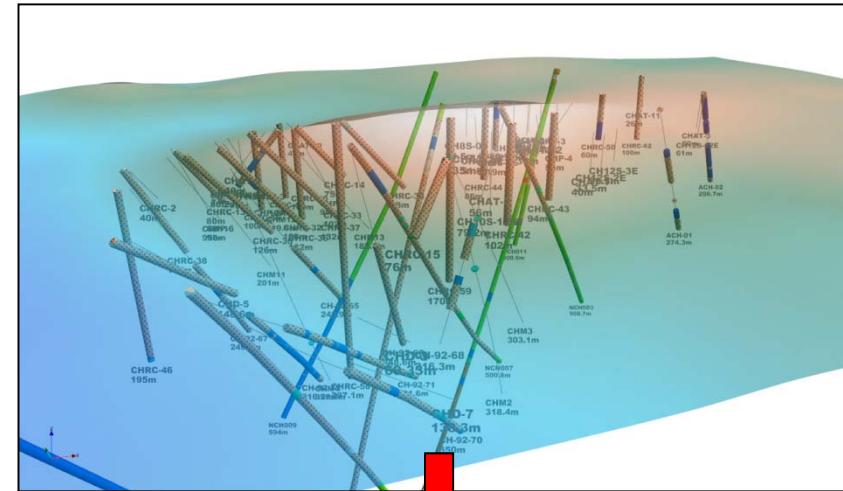
Generate level plans and strip logs, as well as non-linear, long- and cross-sections.

Seamless integration with 3D for more advanced modeling





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to

Drillhole Improvements

Robust Validation engine

Project Validation - Demo Project

Validate project tables for consistency

Validate Collars

Collar: pending Survey: pending Downhole: pending

Duplicate Collar ID's
 Missing, misplaced or non-point objects
 East, North, Elevation, Length (EDH) attributes are zero
 Rows with duplicate locations

Project Validation - Demo Project

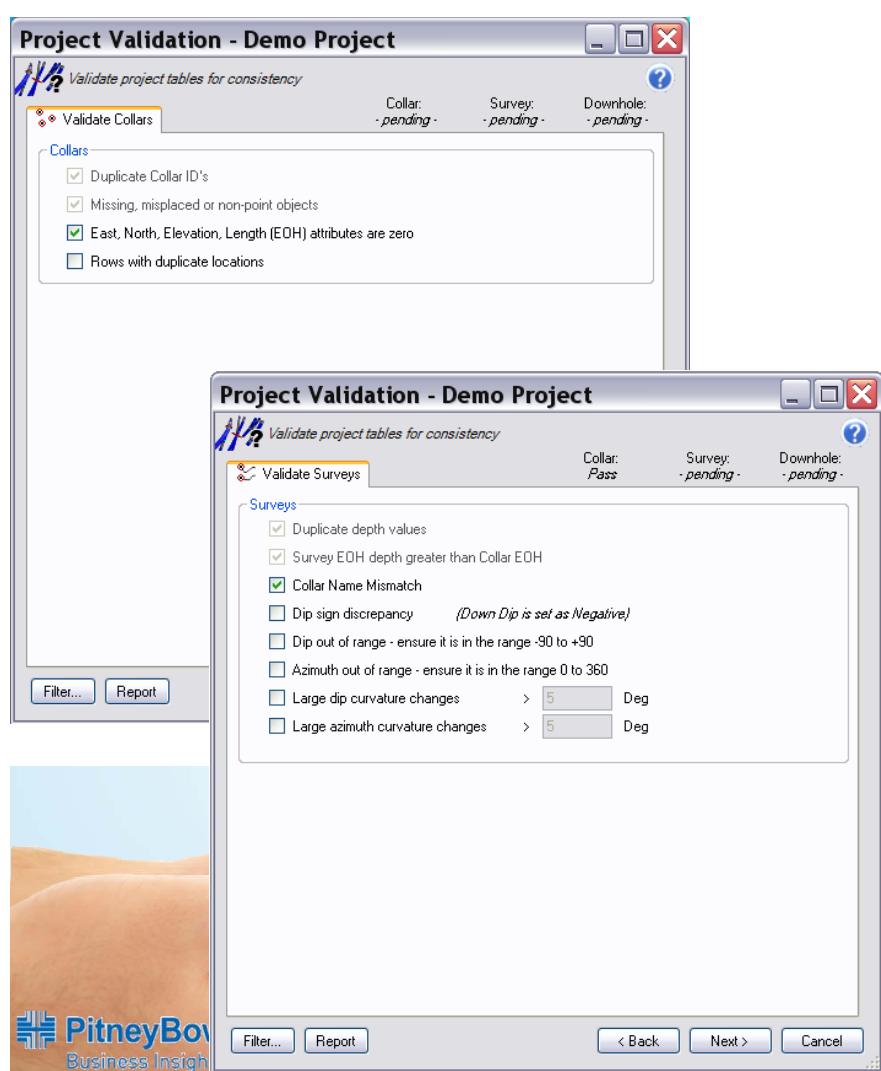
Validate project tables for consistency

Validate Surveys

Collar: Pass Survey: pending Downhole: pending

Duplicate depth values
 Survey EOH depth greater than Collar EOH
 Collar Name Mismatch
 Dip sign discrepancy (Down Dip is set as Negative)
 Dip out of range - ensure it is in the range -90 to +90
 Azimuth out of range - ensure it is in the range 0 to 360
 Large dip curvature changes > 5 Deg
 Large azimuth curvature changes > 5 Deg

Filter... Report



Pitney Bow Business Insights

Project Validation - Demo Project

Validate project tables for consistency

Survey Validation Report

Collar: Pass Survey: 23 errors! Downhole: pending

Error Types All Tables All

Auto Fix

Error	Table	Collar	From	Amount	Show
Large Dip Change	DHsurvey	CH-92-72	-47.0	6.0	...
Large Dip Change	DHsurvey	CHD-1	-45.0	9.0	...
Large Dip Change	DHsurvey	CHD-1	-55.0	8.0	...
Large Dip Change	DHsurvey	CHD-2	-45.0	10.0	...
Collar Missing	DHsurvey	CHP-2			...
Large Dip Change	DHsurvey	NCH007	-53.5	6.5	...
Large Dip Change	DHsurvey	NCH009	-55.0	9.0	...
Large Dip Change	DHsurvey	NCH012	-62.5	5.5	...
Collar Missing	DHsurvey	NAC001			...
Collar Missing	DHsurvey	NAC002			...
Collar Missing	DHsurvey	NAC003			...

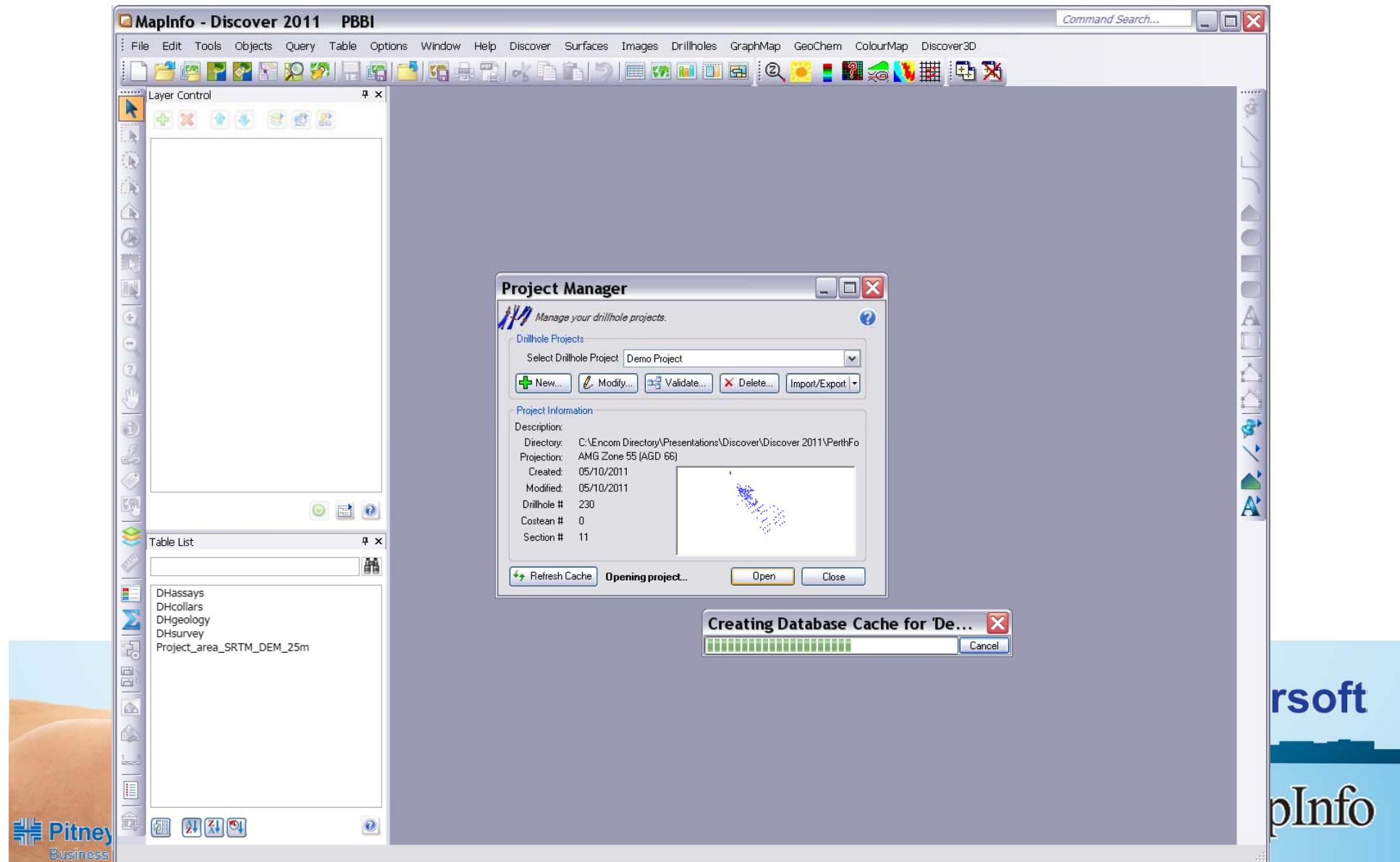
Filter... Report < Back Next > Cancel

Hole_CH_92_72_In_DHsurvey Browser

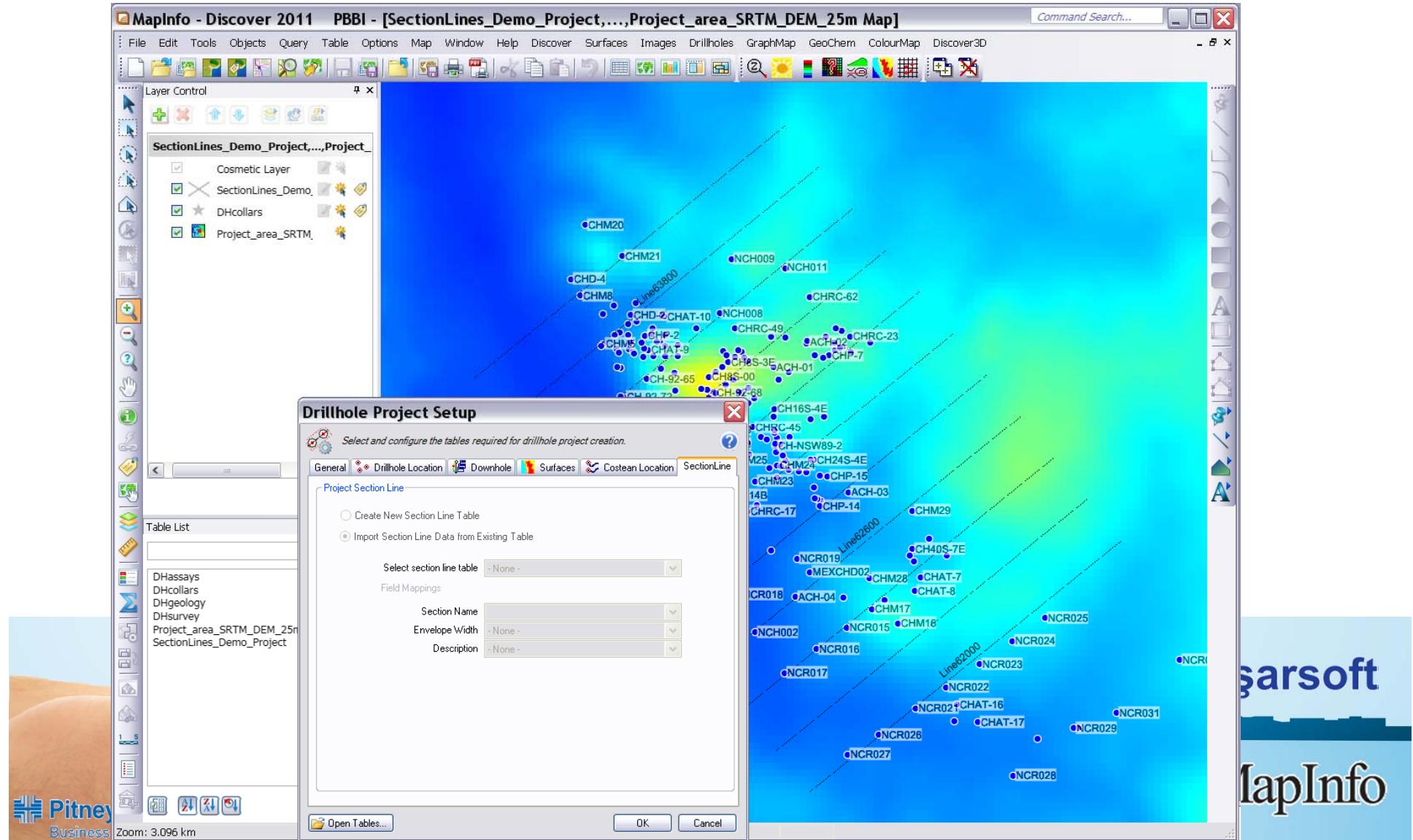
HOLE	DEPTH	DIP	AZIM_AMG	AZIM_MAG	AZIM_local	XE
CH-92-72	0	-45	50.6	0	91	674,114.
CH-92-72	78	-47	52.6	0	93	674,135.
CH-92-72	161	-53	53.6	0	94	674,179.
CH-92-72	229	-55	54.6	0	95	674,216.
CH-92-72	310	-58	54.6	0	95	674,250.

Külli

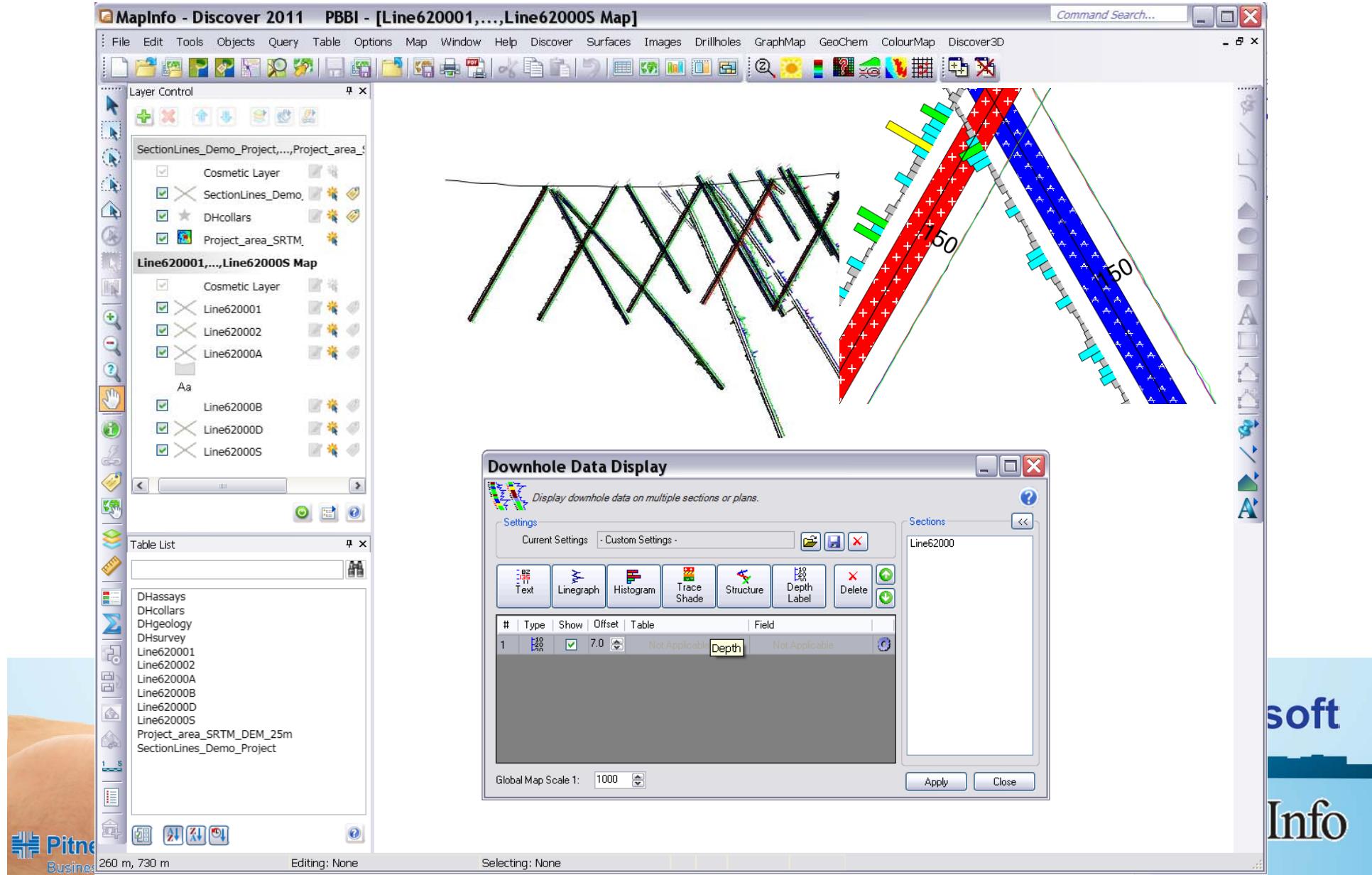
SQL database - Providing significant data access and section rendering efficiencies



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.

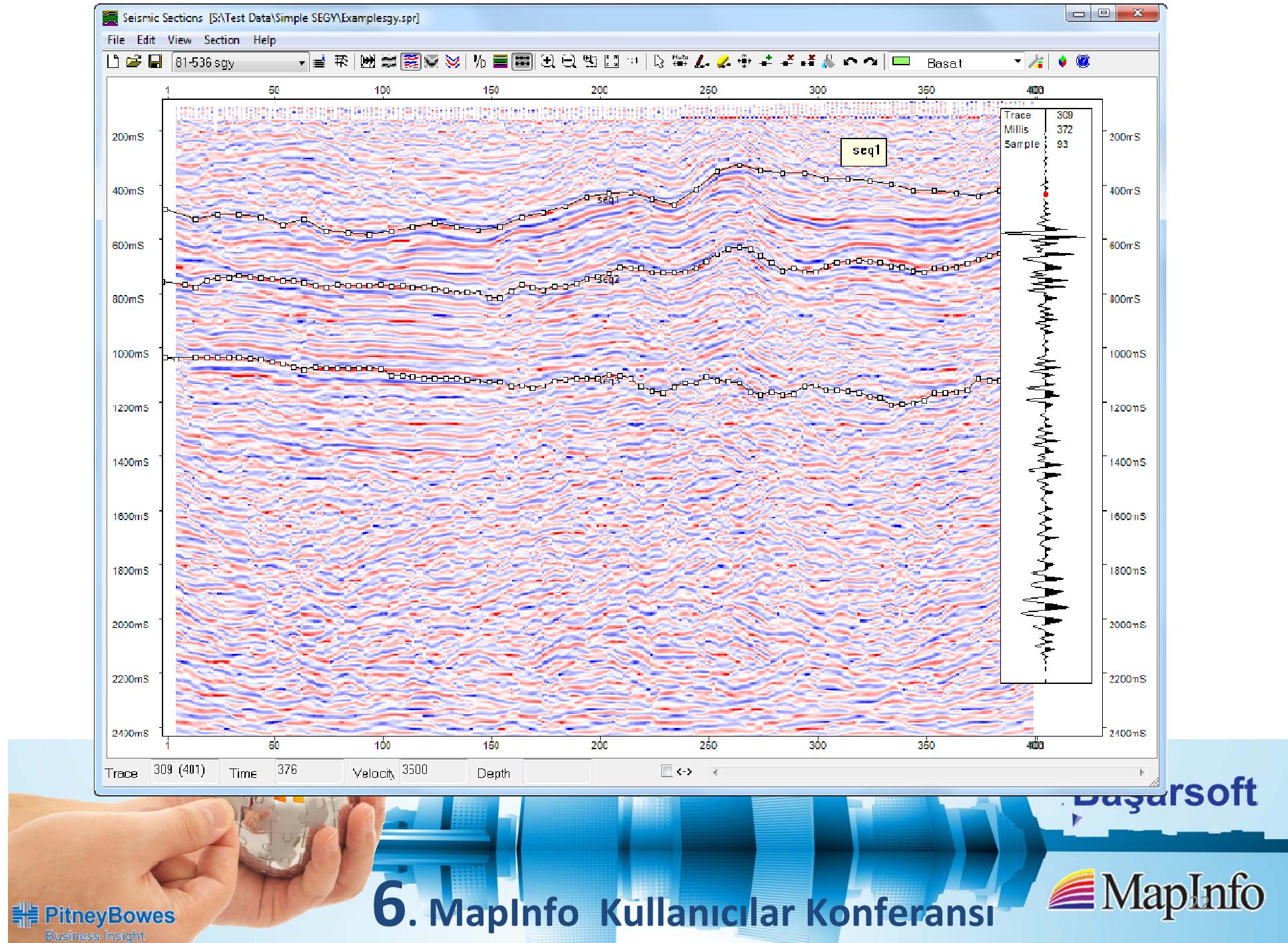


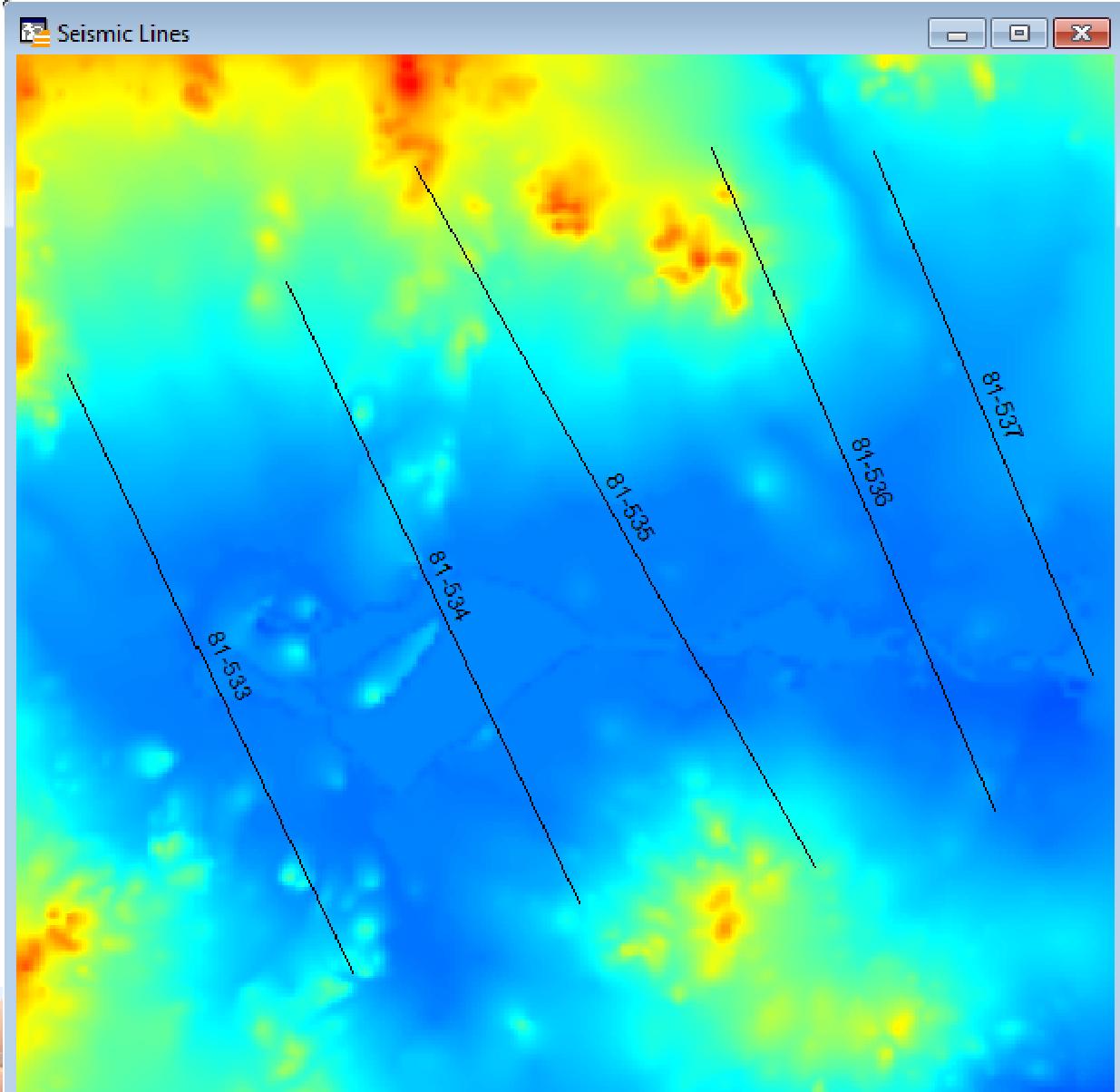
Seismic Interpolation

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)





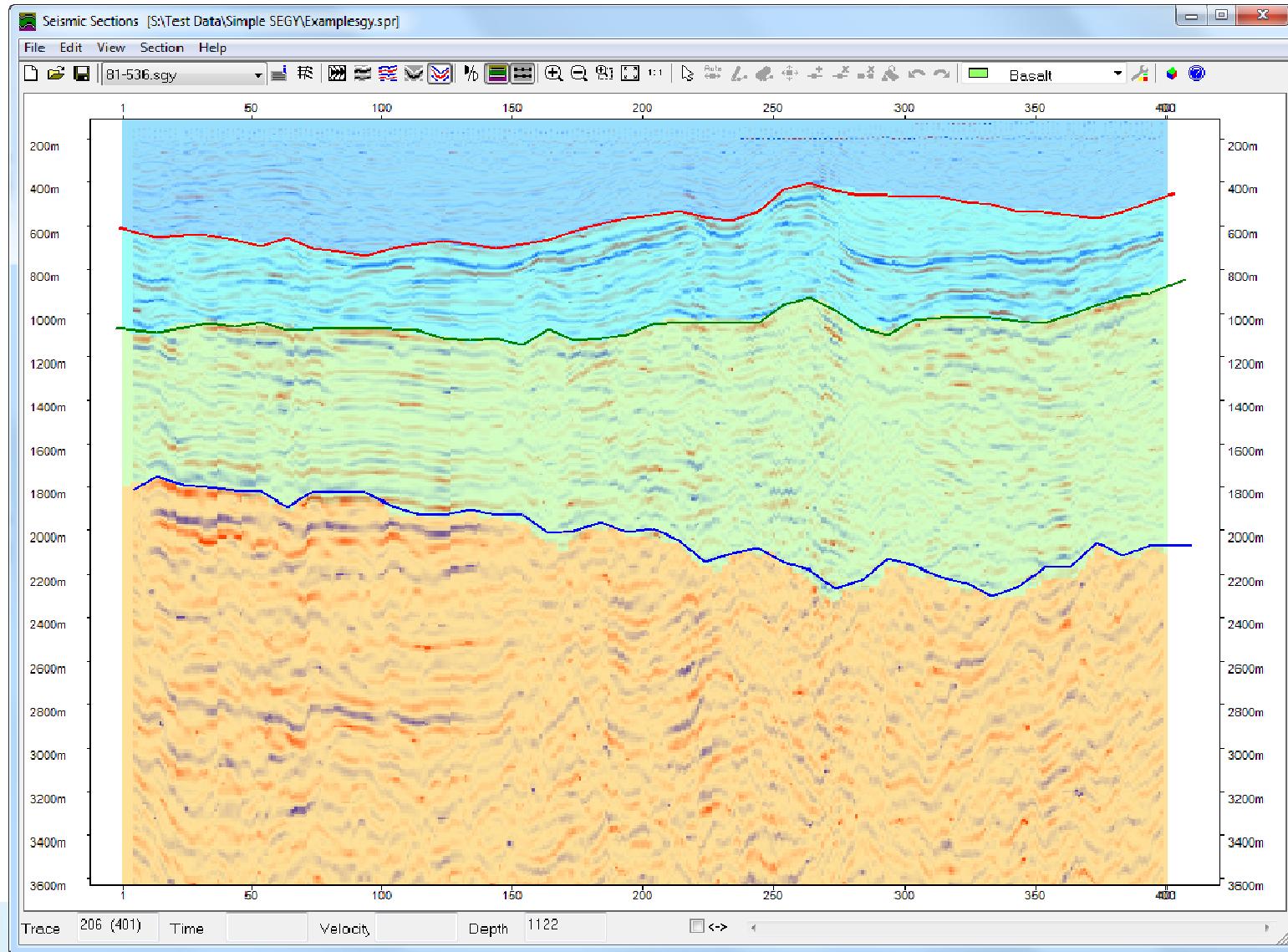


6. MapInfo Kullanıcılar Konferansı

Başarsoft

MapInfo

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Trace 206 (401)

Time

Velocity

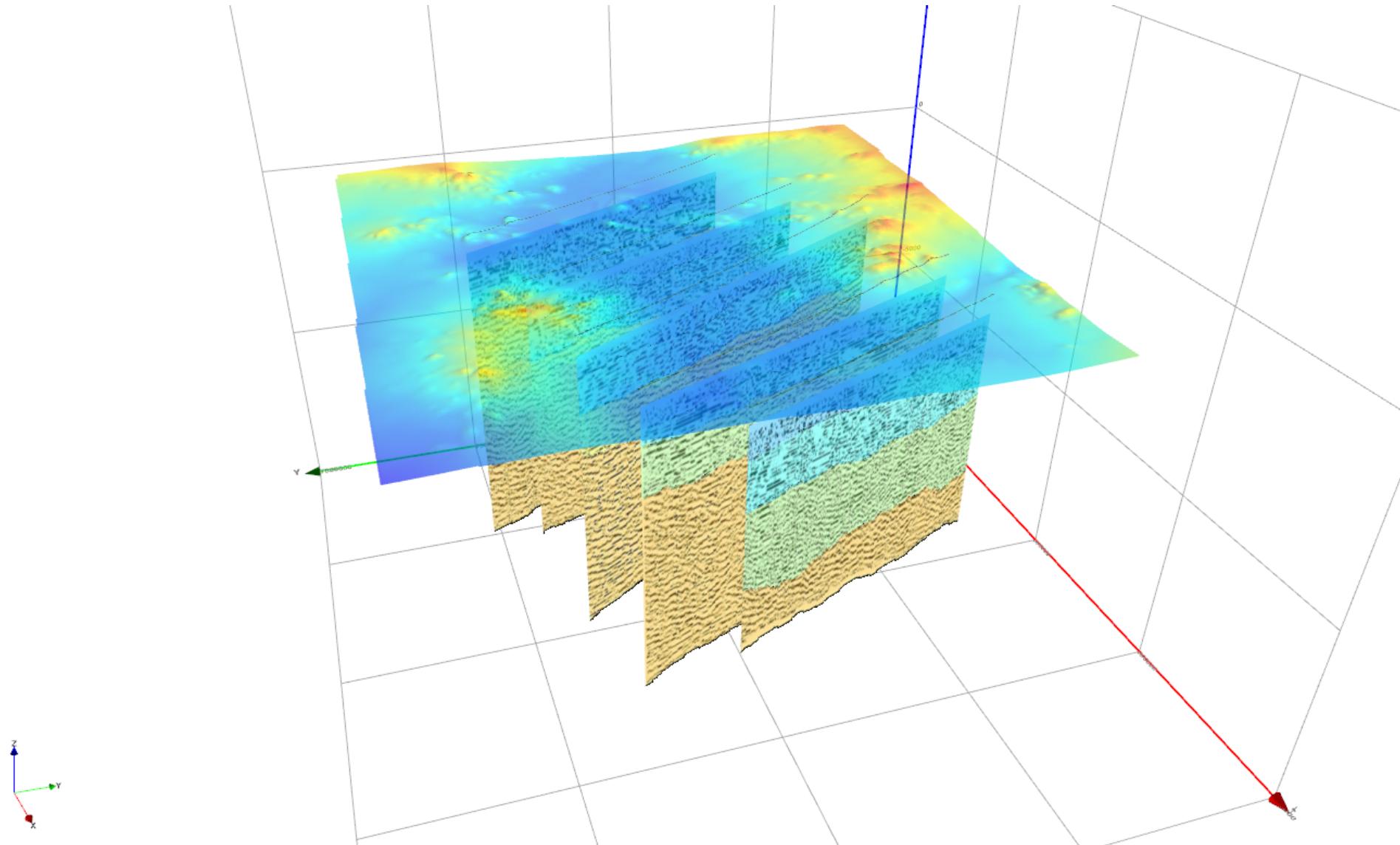
Depth 1122

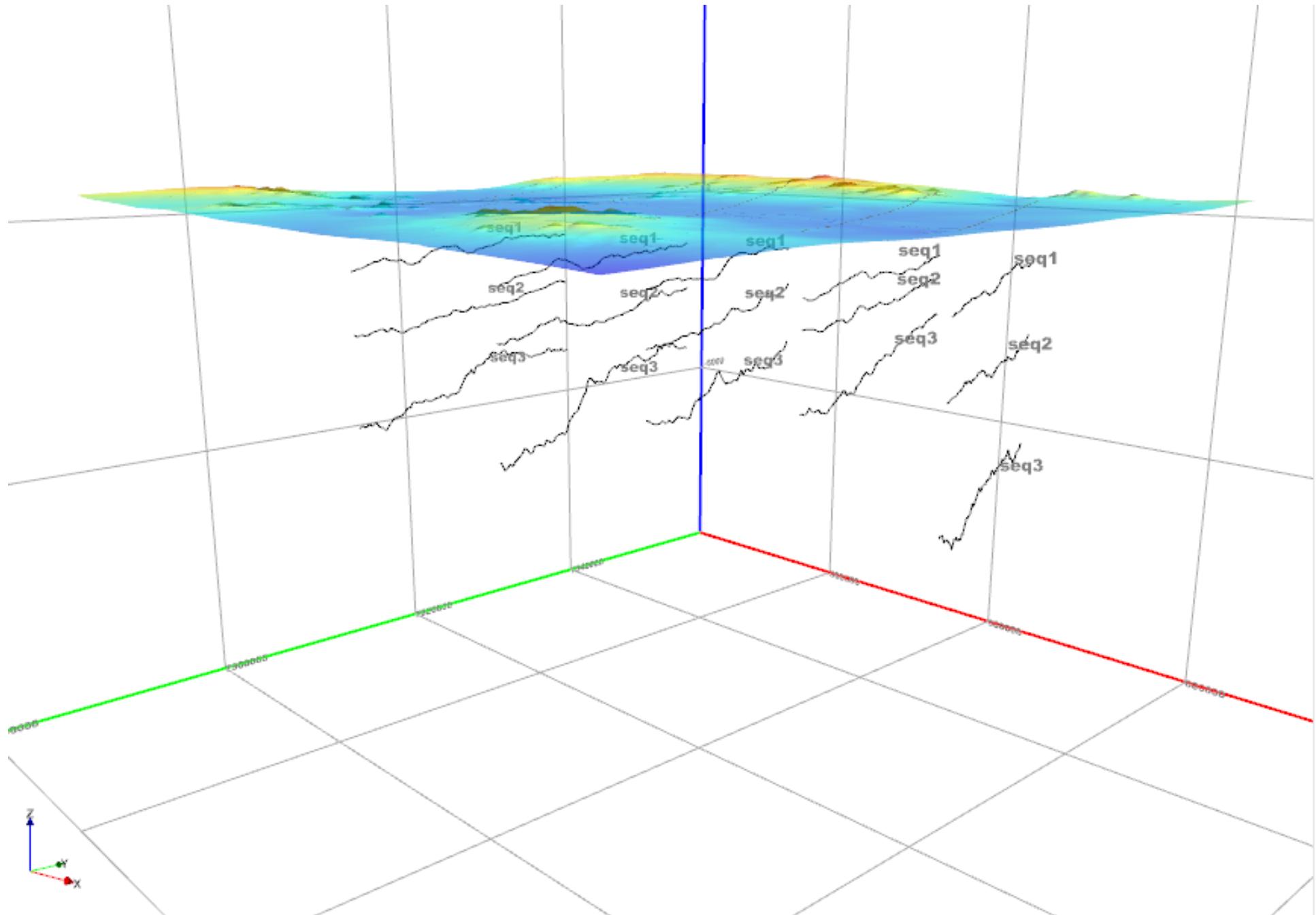
Başarsoft

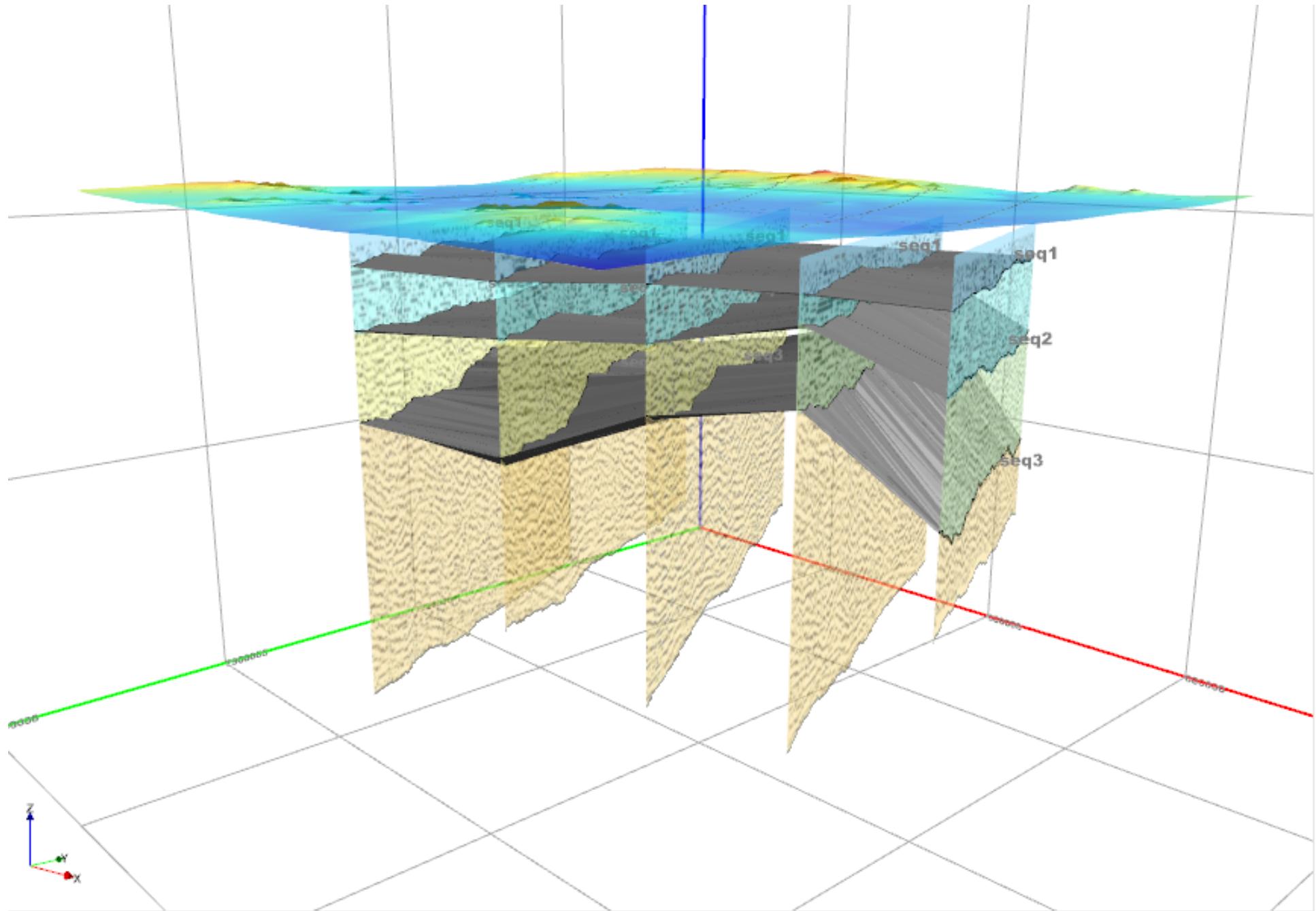


6. MapInfo Kullanıcılar Konferansı

MapInfo





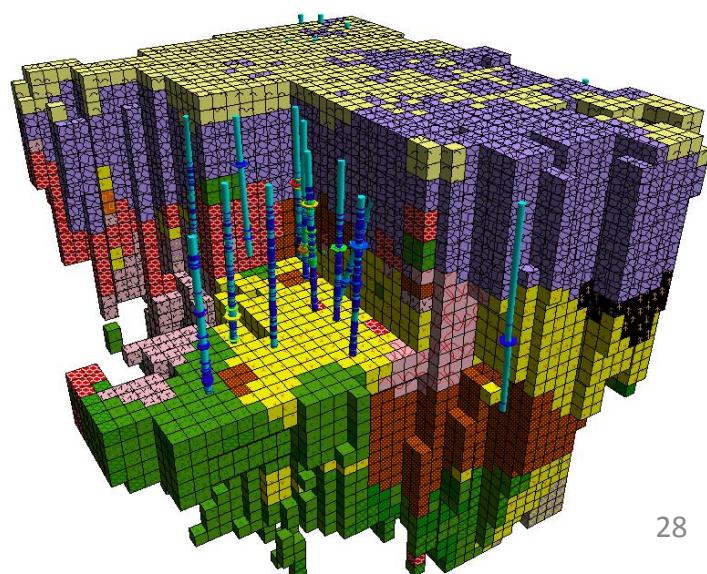
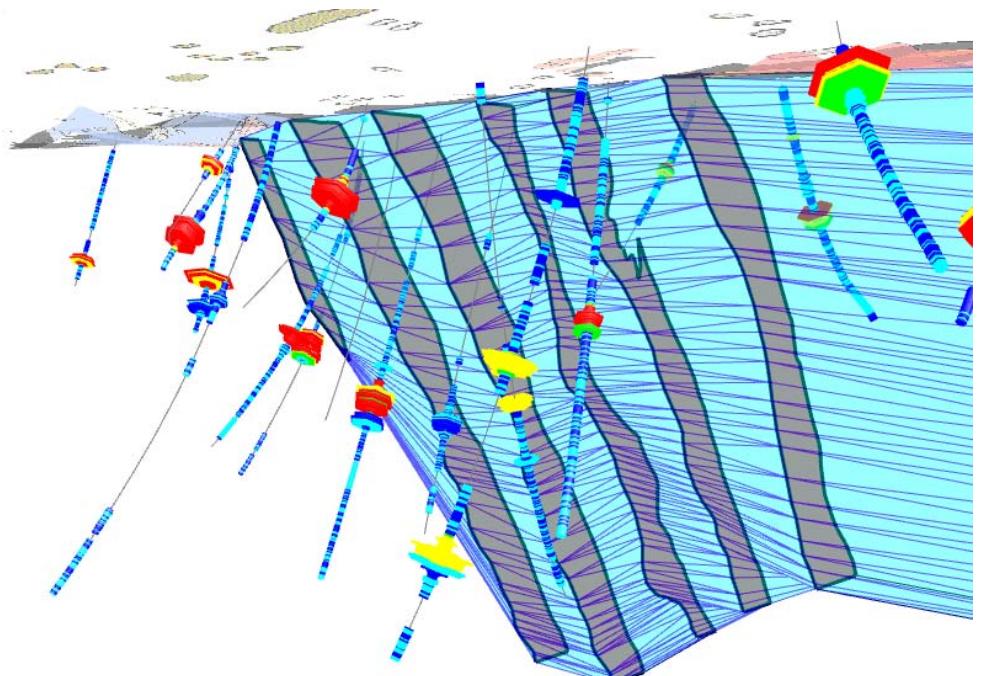
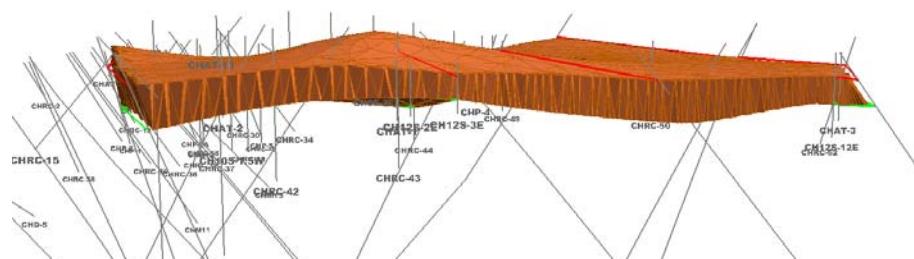
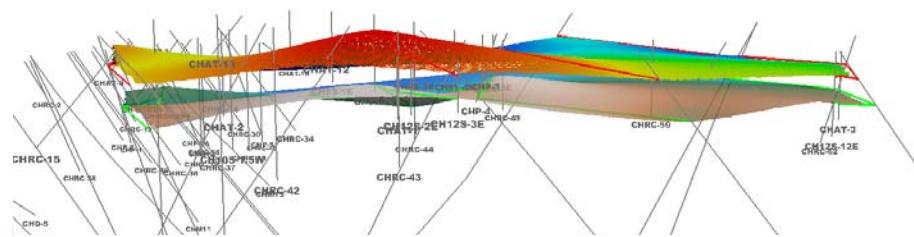
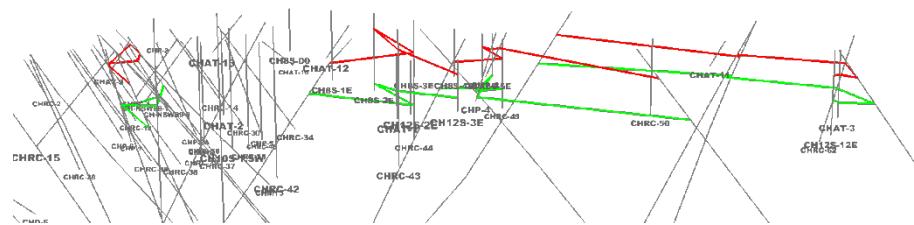


3D Modeling

Wireframing

Surface interpolation in 3D

3D Grid/Voxel model Interpolation



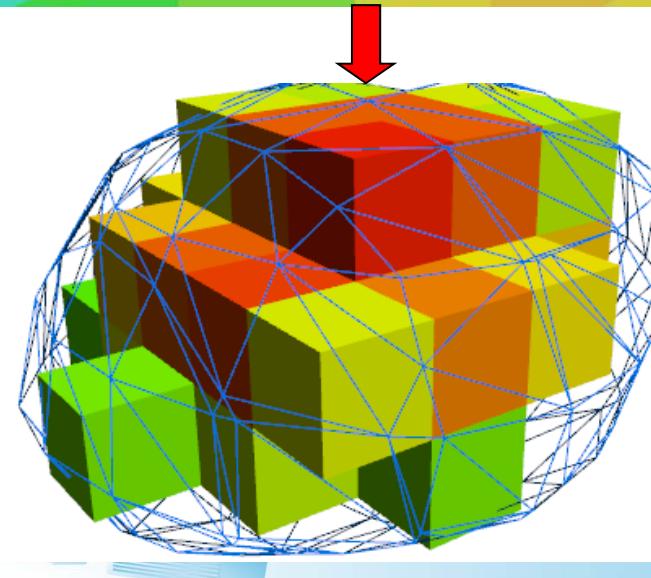
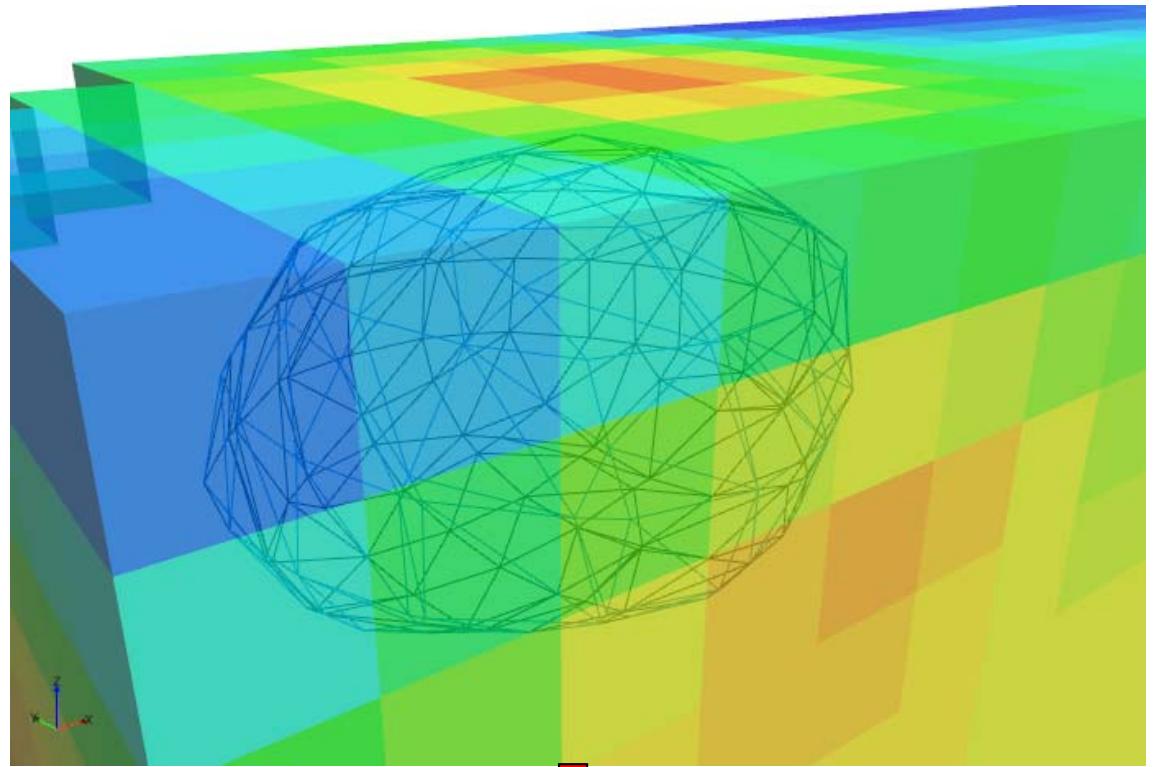
New Voxel Utilities

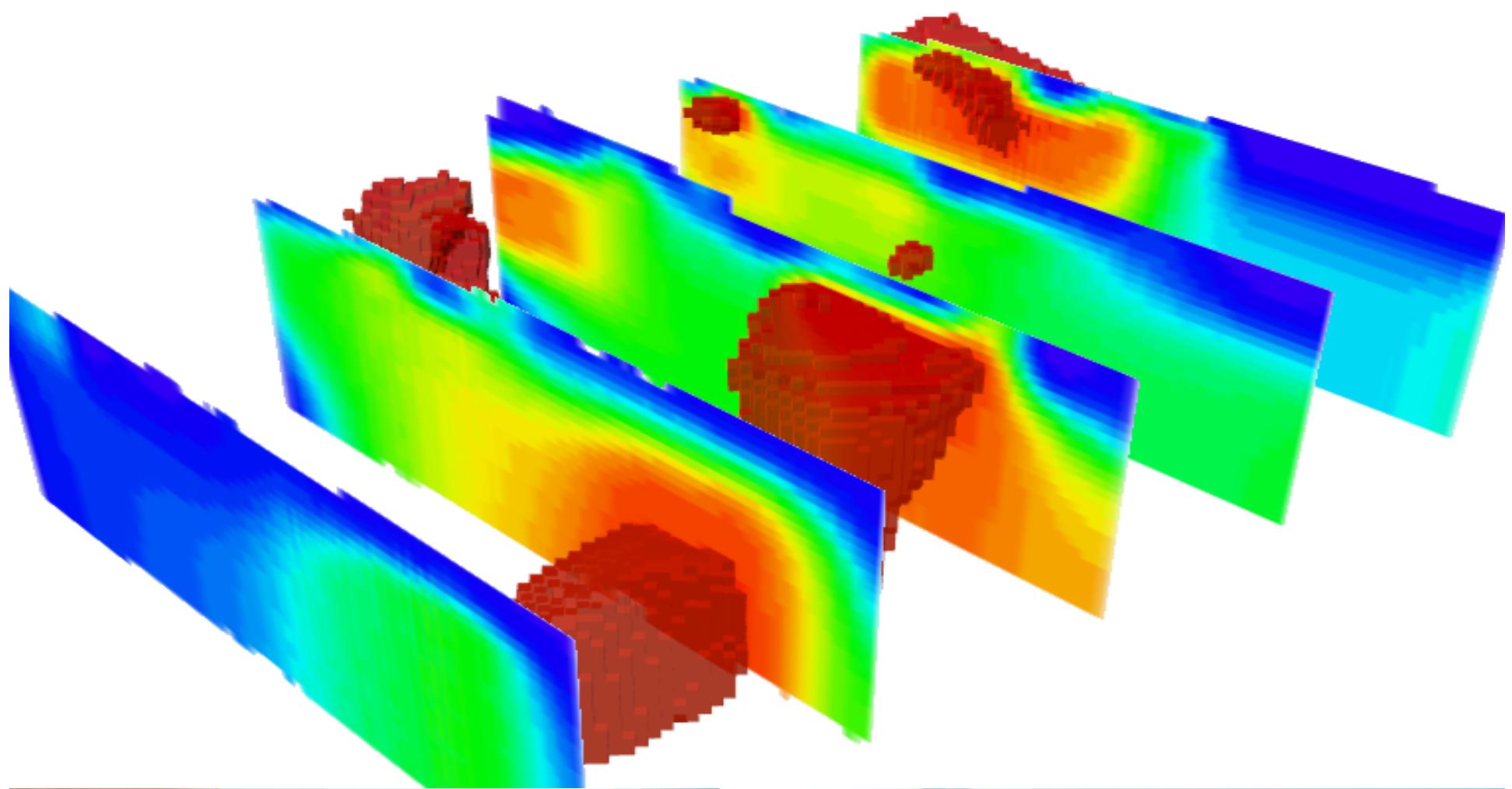
Assign Values to Vector

Clip to Surface

Clip Voxel to Volume

Convert Vector to Voxel





Questions

