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Since 1983

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RockWare Consulting

RockWare was founded in 1983 to provide geoscientific software and consulting to a variety of markets, including petroleum, mining, environmental and civil engineering. RockWare consists of geoscientists with a wide variety of technical knowledge and real world experience upon which customers rely for assistance with their projects, fast reliable analysis of their data, and litigation support using videos and graphics. RockWare's ability to quickly create scientifically accurate, understandable, and appealing analyses, diagrams and videos has provided enormous benefit for our satisfied customers.

Support & Graphics for:
· Environmental
· Oil and Gas
· Mining
· Hydrogeological Sciences

Extensive expertise in:
· Geology
· Geomodeling
· Geochemistry
· Geomorphology
· Physics
· Hydrogeology
· Groundwater Modeling
· And much more

Modeling, volumetrics, graphics, and videos of virtually any type of subsurface data including:
· Contaminant Plumes
· Ore Bodies
· Reservoirs
· Well / Borehole Geophysics
· Reserve Estimates
· Field Mapping
· Site Characterization
· Digital Well / Borehole Log and Cross-Section Creation
· 3D Visualization
· Virtual Tour / Flyover Videos

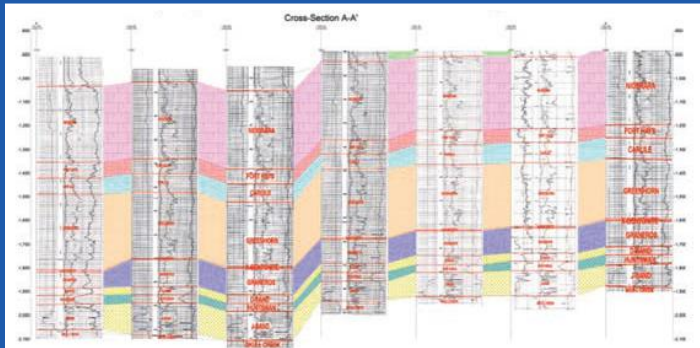You provide the data, we'll provide the...

Maps
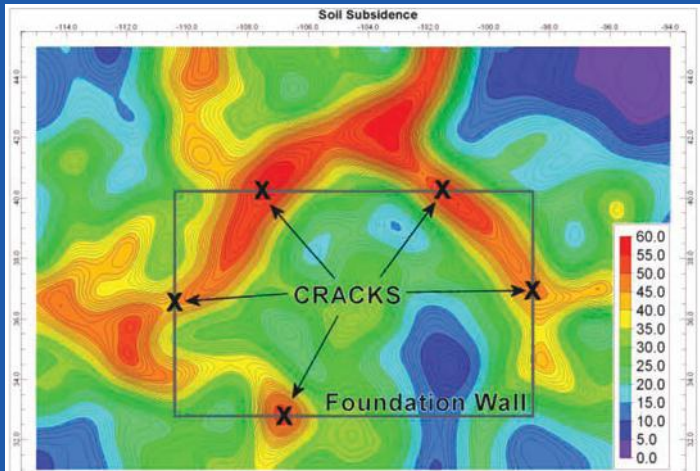
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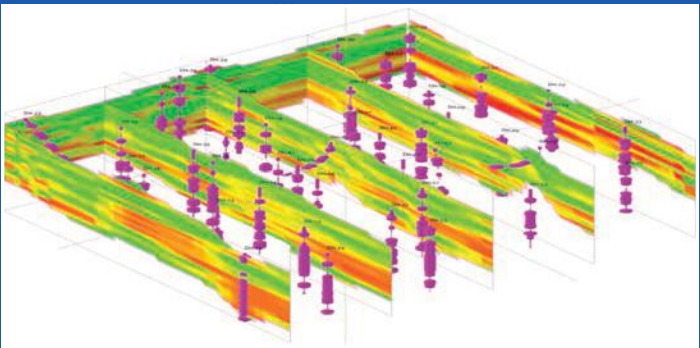

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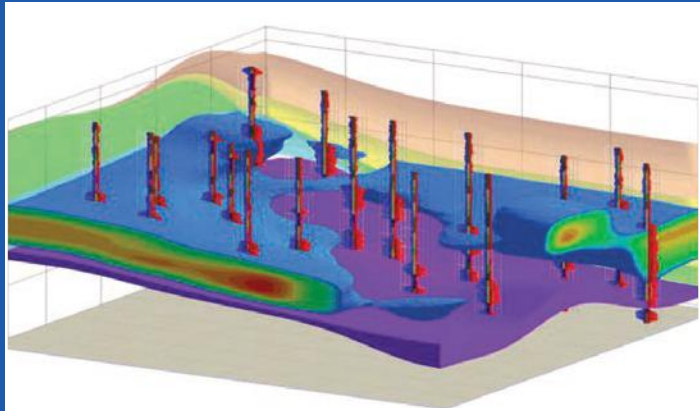
Cross-Sections

Correlated Petroleum Logs
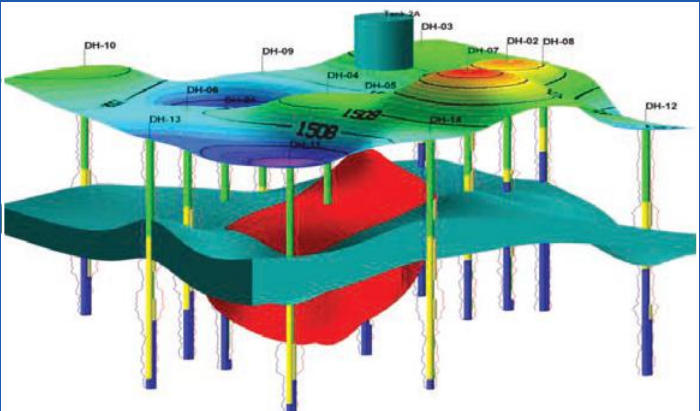

Cross-Sections within Formation Porosity Model
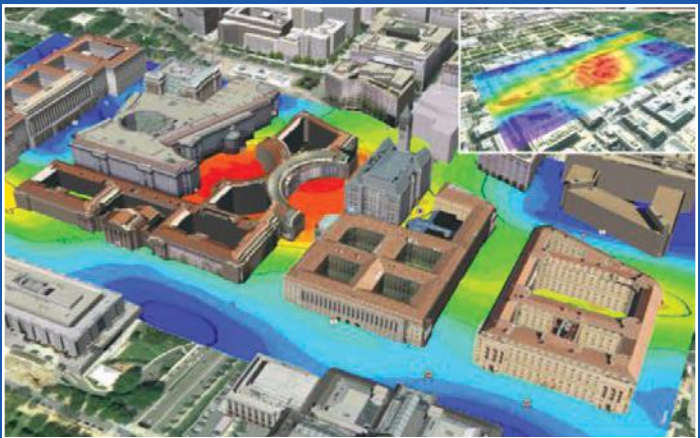
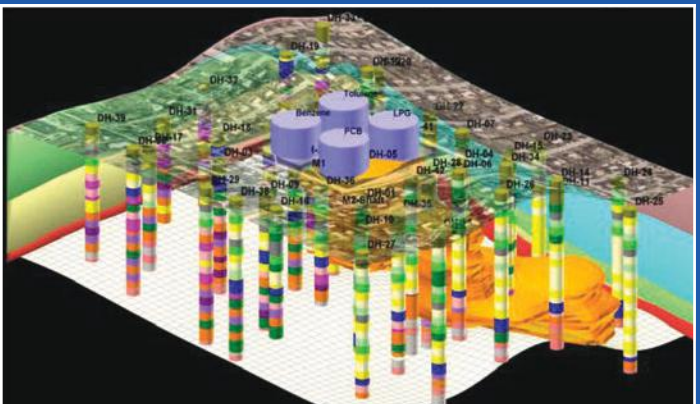## Three-Dimensional Diagrams

Hydrocarbon Reservoir

Contamination Plume from Leaking Surface Tank

Video Animations

Time-Based Animation Depicting Changes
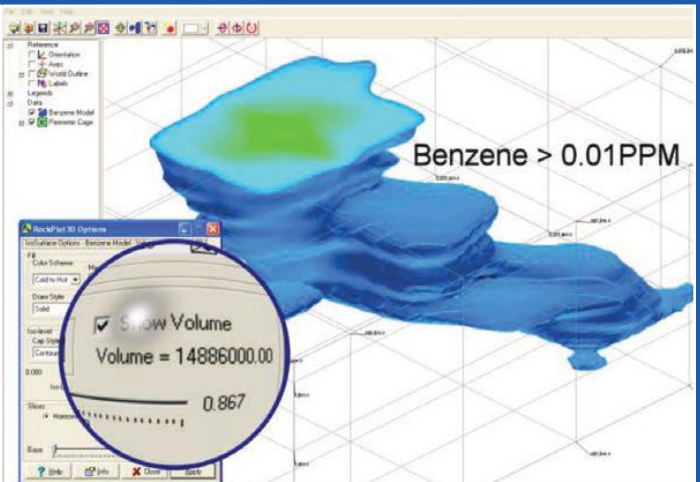in Foundation Level Moisture

Site Overview: Viewer is gradually introduced
to site via draped airphoto, followed by storage tanks,
boreholes, stratigraphy and plume.

Volumetric Computations
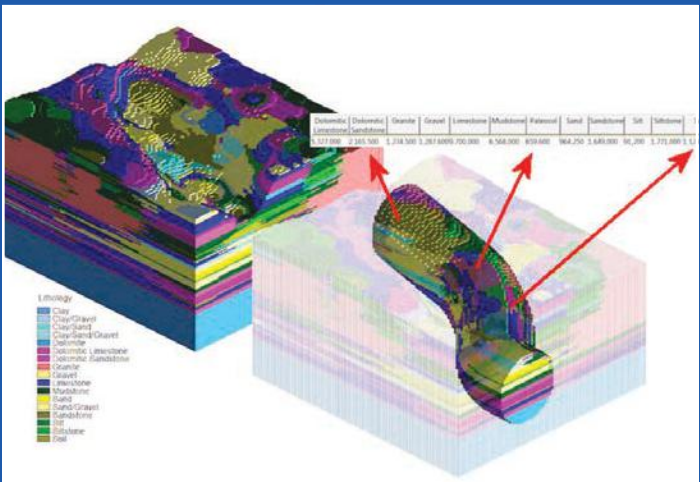
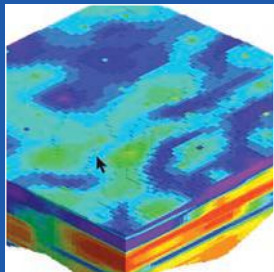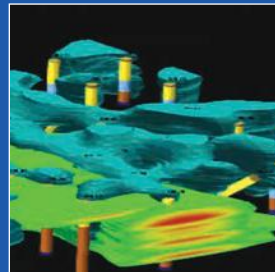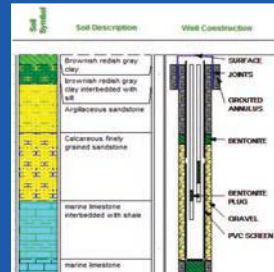Material Volumetrics – Subway Tunneling Project
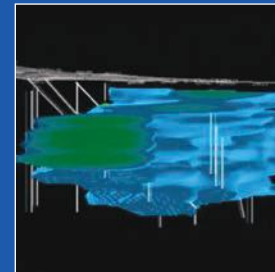

Contaminant Plume Volumetrics
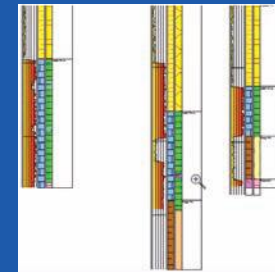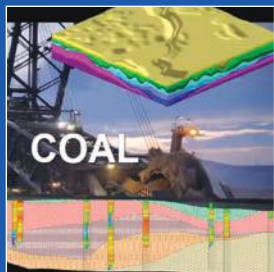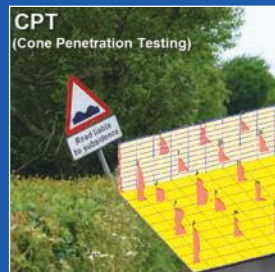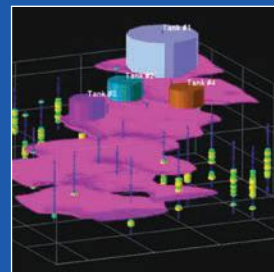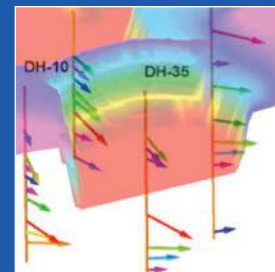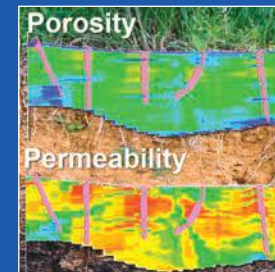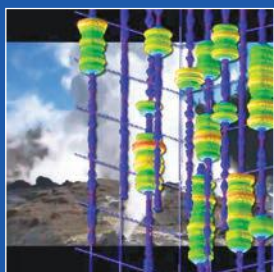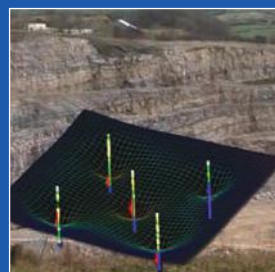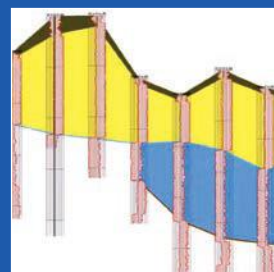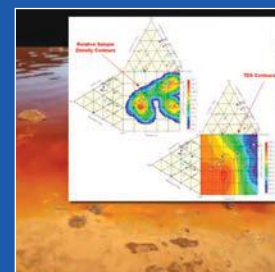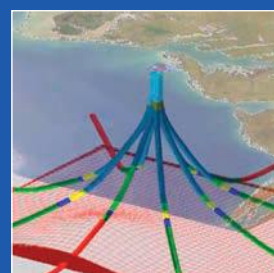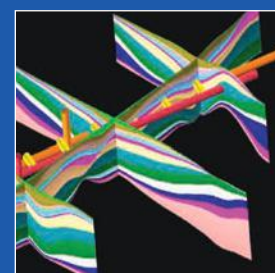
Please contact Consulting@RockWare.com,
or call us at 1.800.775.6745 extension 4,
for help with any of your consulting needs.

RockWare YouTube Videos

No time to come to the RockWorks workshops in Golden, Colorado, USA? No worries! Visit the RockWare YouTube Channel and watch the sequence of Hands-On Training Exercises which take you through much of the in-person class. Whether you own a license for RockWorks17 or are using the Trial version, these instructional movies will get you started in the program!

RockWorks17 Overview

RockWorks17 New Features

LogPlot 8 Overview

RockWare Litigation Support

Training Videos

Coal Multi-Seam / Multi Attribute Modeling

Cone Penetration Testing

Contaminant Plume Modeling

Dam Sites

Geotechnical Soil Investigations

Geothermal

Groundwater

Hydrocarbon Exploration

Hydrochemistry

Industrial Minerals

Landfills

Mining

Oil & Gas Production

Tunneling

Groundwater Contamination

Please visit RockWare's YouTube channel at www.youtube.com/user/RockWareSoftware for videos on industry specific applications, new features and instructions.

Please visit our website at rockware.com/training-videos/ for more videos and tutorials.

RockWorks contains tools that will save time and money, increase profitability and provide you with a competitive edge through high-quality graphics, models and plots. See what's new!

What's New

- 64-bit processing for larger, higher-resolution models
- Multi-threading for faster modeling
- 3D Faulting for solid (block) models, surface models and stratigraphy models
- New QuickMap view for borehole locations
- SQL Lite (default) or MDB for local databases
- Production table in database and full suite of well production diagrams
- GeoBody filter for grouping block model values
- Data imports—Excel, LAS, LogPlot, IHS, KGS, Tobin, other databases
- Stratigraphic contacts from digital elog data or raster logs

System Requirements

- Windows 7, Windows 8, or Windows 10
- RockWare Network License Administrator (for Network license) requires Windows Server 2003 or higher
- 64-bit operating system
- 2+ GB RAM

Download free trial at rockware.com
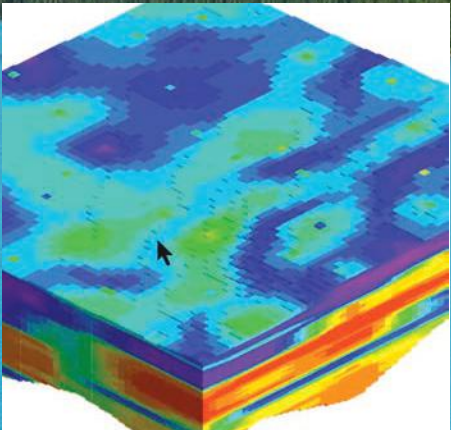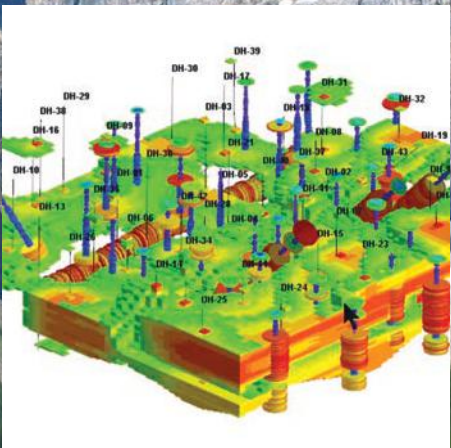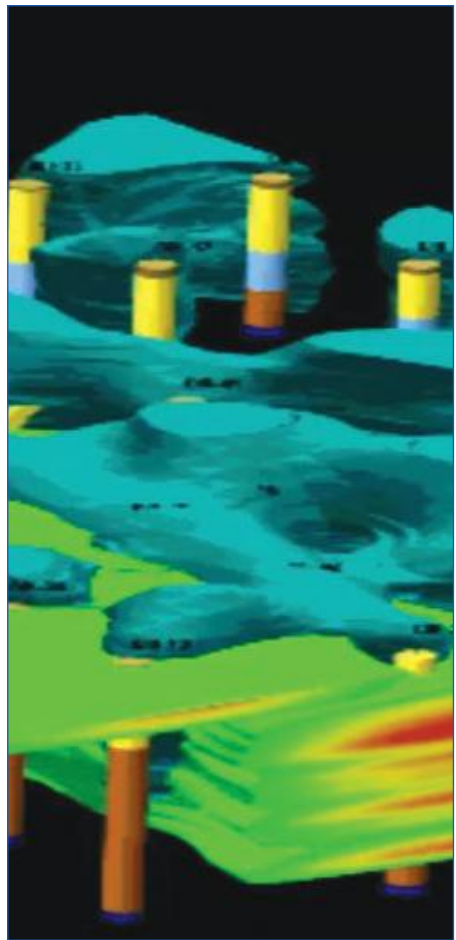
RockWorks is a comprehensive program that offers visualization and modeling of spatial data and subsurface data. Whether you are a petroleum engineer, environmental scientist, hydrologist, geologist or educator, RockWorks has what you need.

Mapping Tools

- Borehole location maps with detailed data labels
- Contaminant concentration maps with lines and color fills, custom color tables, date filters
- Plan- and surface-based slices from 3D models
- Stiff diagram maps
- Time-graph maps for user-selected analytes
- Potentiometric surface maps
- Flow maps in 2D and 3D
- Coordinate systems/conversions: lon/lat, UTM, State Plane, local, custom

Borehole Database Tools

- Cross sections: multi-panel projected and hole to hole, with borehole logs and/or interpolated panels
- Correlations: model-based and "EZ" panels, snapping tools for hand-drawn correlations
- Borehole logs in 2D and 3D
- 3D fence diagrams
- Surface modeling of stratigraphic layers and water levels
- Plume modeling of analytical data, with display as voxel or isosurface diagrams, 2D plan and section slices
- Solid modeling of lithologic materials, geophysical and geotechnical measurements
- Volume reports of lithologic and stratigraphic models, contaminant extraction models
- Bulk data imports from Excel, text, LAS, other databases

Other Tools

- Time-based animations
- Piper and Durov diagrams with TDS circles, Stiff diagrams for multiple samples
- Water level drawdown diagrams and surfaces
- 2D editing tools: contour lines, text, shapes, legends, images
- Composite scenes in 3D with maps, logs, surfaces, solids, panels, surface objects
- Page layout program for small to large format presentations and posters
- Exports to GIS Shapefiles, CAD DXF, raster formats, Google Earth
- Image import and rectification
- Program automation
- Google Earth output directly from data: points, cones, lines, polygons, images, flyovers

Borehole logs, cross sections, concentration maps, plume models, geology models, time-based animations, geochemistry diagrams and more. RockWorks will help the environmental professional along the path from site characterization to remediation planning and execution.

DH-10-b
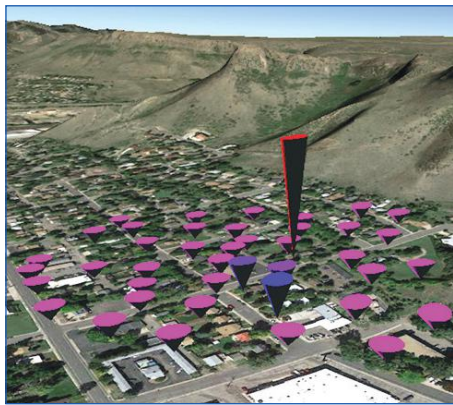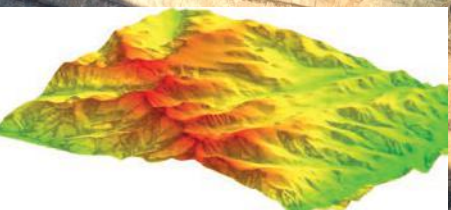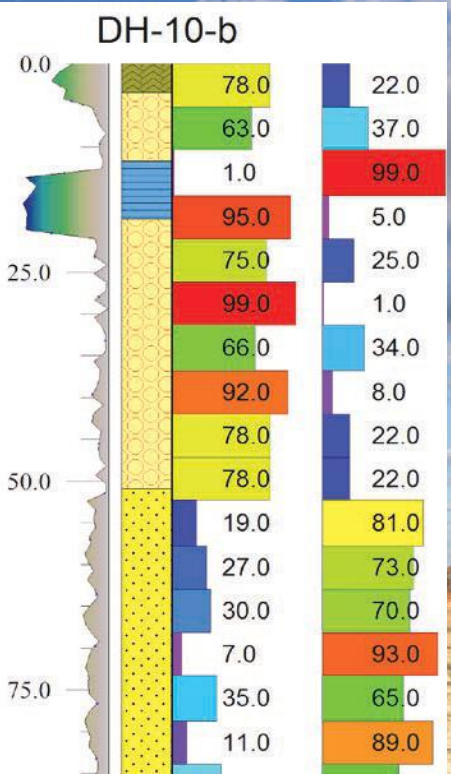
Mapping Tools

· Drillhole location maps with detailed data labels

· Assay, concentration maps with lines and color fills, custom color tables

· 3D surface displays: topographic surfaces, stratigraphic units

· 3D point maps

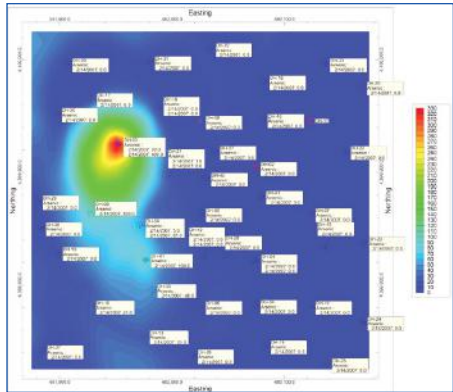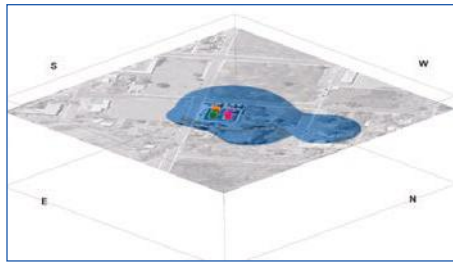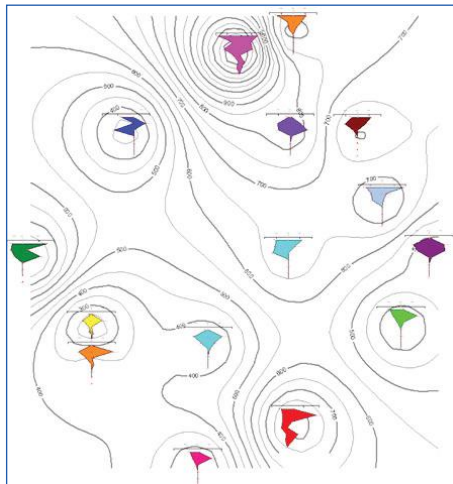· Geology maps: plan or surface-based slices from block models

· Multivariate maps: pie chart, bar chart, starburst, spider maps

· Coordinate systems/conversions: lon/lat, UTM, State Plane, local, custom
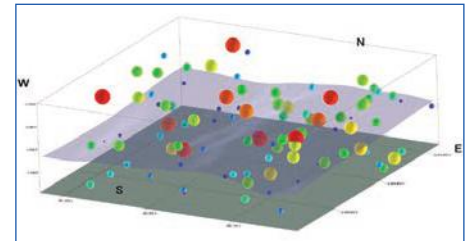
Borehole Database Tools

· Projected cross sections showing drillhole orientation
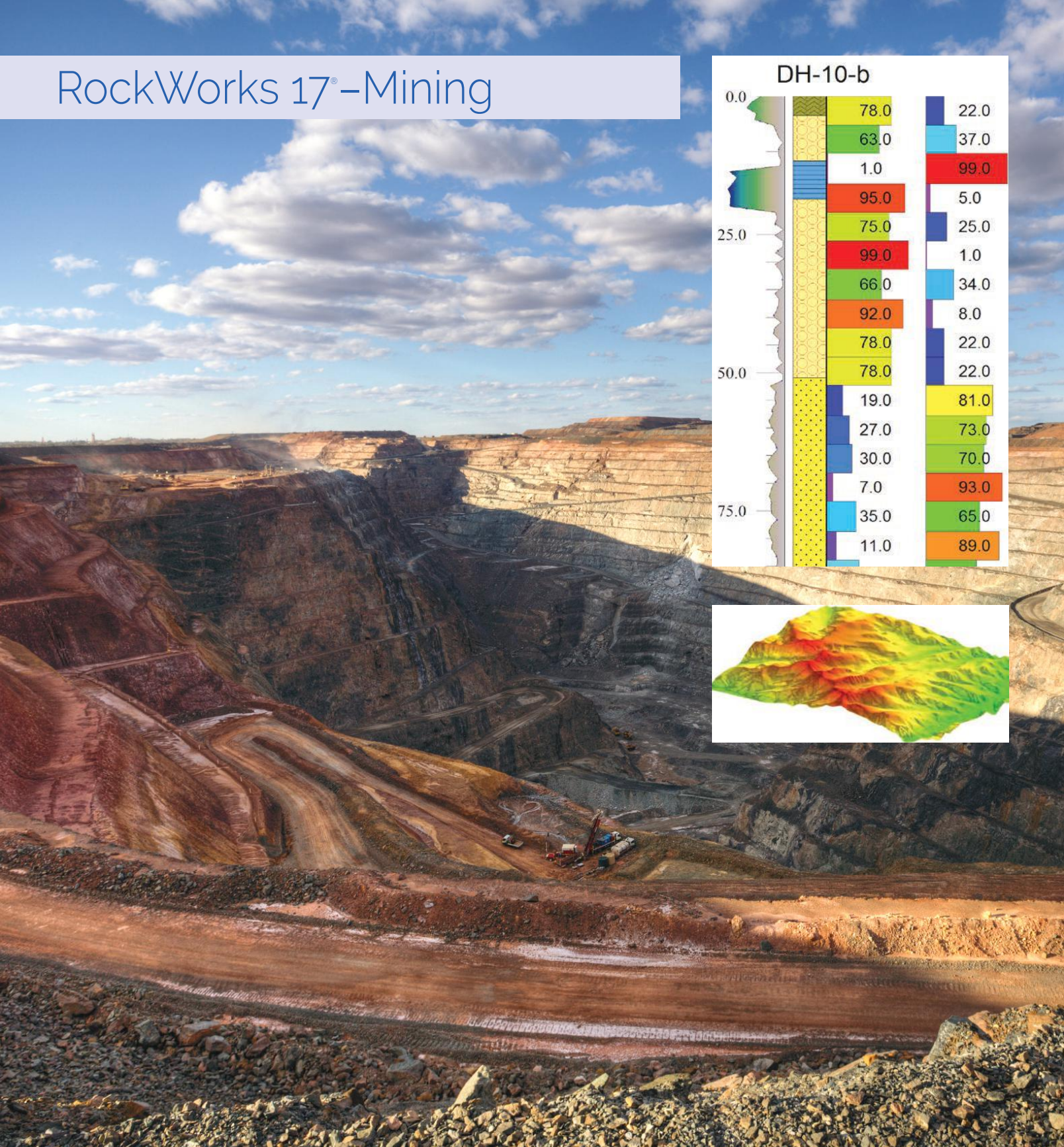
· Correlation panels: stratigraphy, lithology, grade/concentration, geophysics

· Drillhole logs in 2D and 3D with lithology, stratigraphy, bargraphs/disks, curves, color intervals, text

· Block model interpolation from XYZG point or drillhole data, display as voxels, isosurfaces, fence diagrams, 2D plan and section slices

· Surface model interpolation of stratigraphic units

· Downhole fracture display and modeling—closest fracture and closest fracture intersection

· Volume reports of lithologic, stratigraphic models

· Data imports: Excel, LAS, acQuire, Newmont, other databases
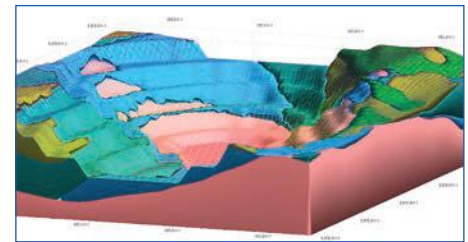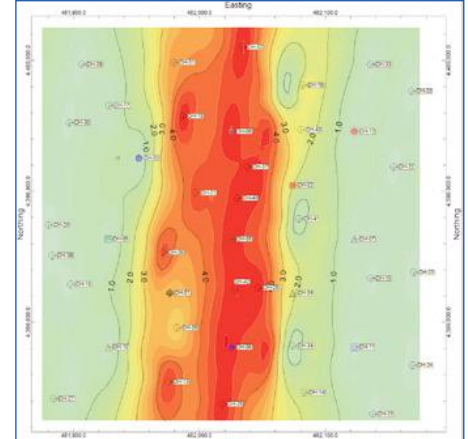
Other Tools

· Block model editor: 3D voxel/polyhedron editor or slice-based

· Volume calculations: grade statistics by level, extraction reports, GT calculators, floating cones model extraction tools

· Stereonet and rose diagrams, stereonet and rose maps

· Ternary diagrams, frequency histograms for source data and models

· Graphic output: 2D and 3D output to RockWorks, Google Earth

· 2D editing tools: contour lines, text, shapes, legends, images

· Composite scenes in 3D with maps, drillhole logs, surfaces, blocks, panels

· Page layout program for small to large format presentations and posters

· Exports to GIS Shapefiles, CAD DXF, raster formats, Google Earth

· Image import and rectification

· Program automation
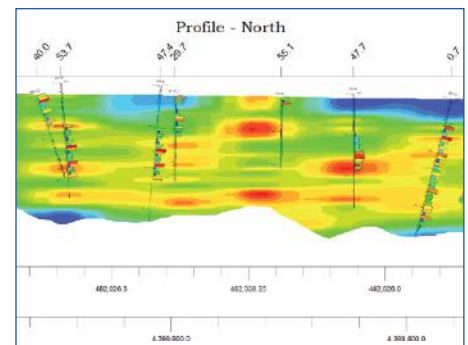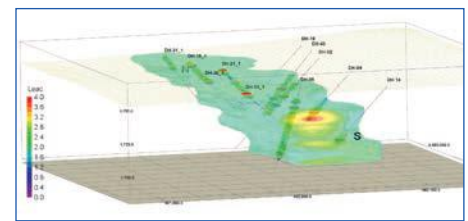
Mining professionals rely on RockWorks point and contour maps, 2D and 3D log displays, projected sections, block model interpolating and editing, detailed volume calculations, and import/export tools in both exploration and production phases of their projects.

DH-01
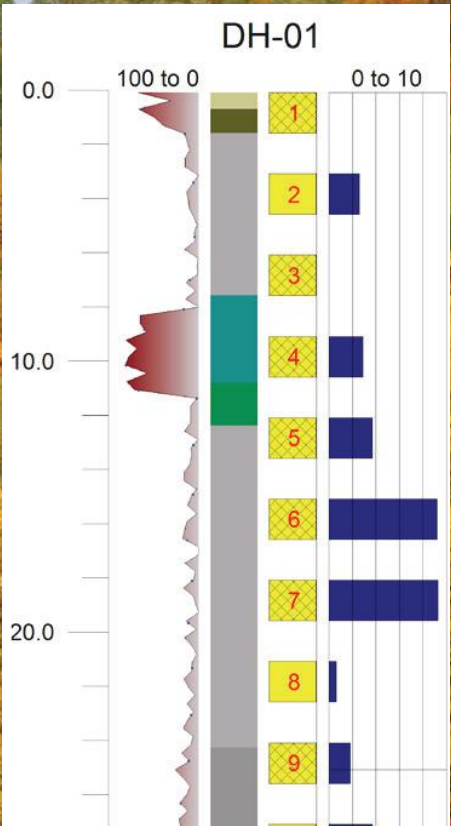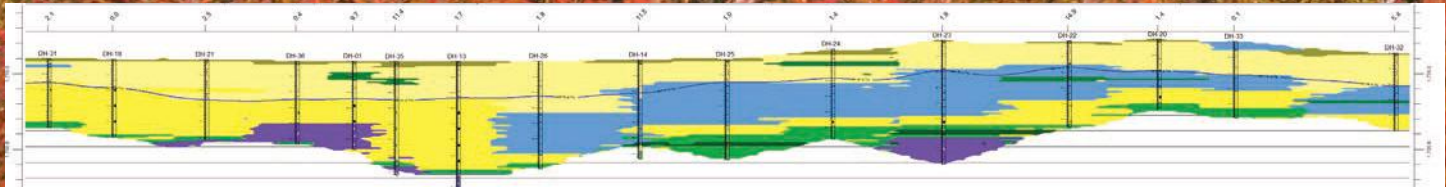
RockWorks offers geotechnical and civil engineers graphical and analytical tools for evaluating construction and excavation sites. Create borehole logs and cross sections, dozens of different types of maps, structural diagrams, geological/ geotechnical/fracture/ color models, volume reports and more.

Mapping Tools

• Multiple components in piechart, spider maps

• Point maps with detailed data labels

• Topographic contour maps with lines and color fills, custom color tables

• 3D surface displays

• Strike and dip maps in 2D and 3D

• Coordinate systems/conversions: lon/lat, UTM, State Plane, local, custom

Borehole Database Tools

• Cross sections: multi-panel projected and hole to hole, with borehole logs and/or interpolated panels

• Correlations: model-based and "EZ" panels, snapping tools for hand-drawn correlations

• Borehole logs in 2D and 3D

• 3D fence diagrams

• Surface modeling of stratigraphic layers and water levels

• Solid modeling of lithologic materials, fractures, and geophysical, geotechnical, geochemical data, with display as voxel or isosurface diagrams, 2D plan and section slices

• Geology maps: plan slices from stratigraphy or lithology models

• Volume reports of lithologic, stratigraphic, excavation models

• Fracture display and modeling, stereonet maps, rose diagram maps

• Munsell colors for display in logs and interpolation into color models

• Data imports: Excel, AGS, Colog, Fugro CPT, gINT, LAS, Penetrometer, other databases

Other Tools

• Sieve diagrams, ternary diagrams with classification overlays

• Stereonet and rose diagrams

• Slope/aspect analysis on grid models

• Predictive tools: lithology materials from curves, interval data (porosities, strength, cohesion) from lithology

• 2D editing tools: contour lines, text, shapes, legends, images

• Composite scenes in 3D with maps, logs, surfaces, solids, panels, surface objects

• Page layout program for small to large format presentations and posters

• Exports to GIS Shapefiles, CAD DXF, raster formats, Google Earth

• Image import and rectification

• Program automation

• Google Earth output directly from data: points, cones, lines, polygons, images, flyovers
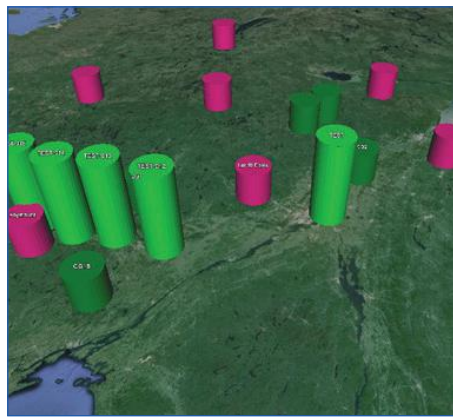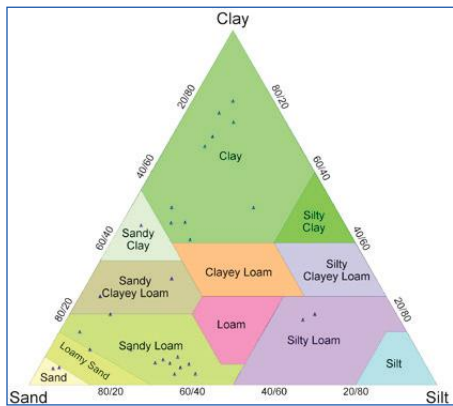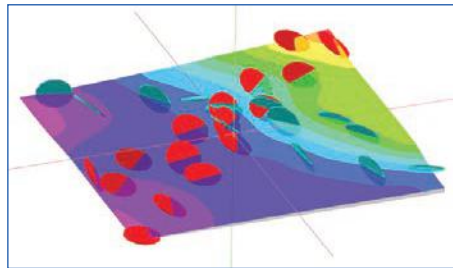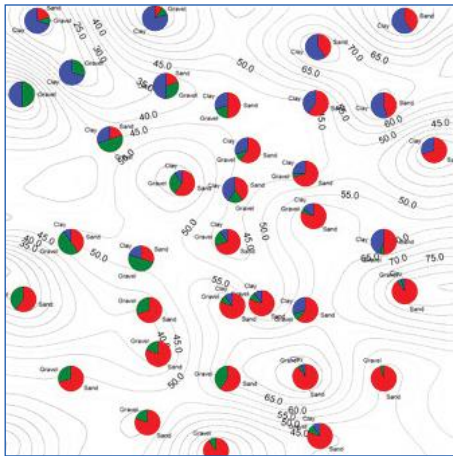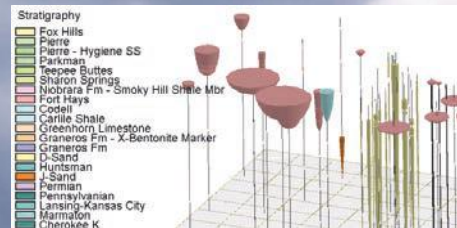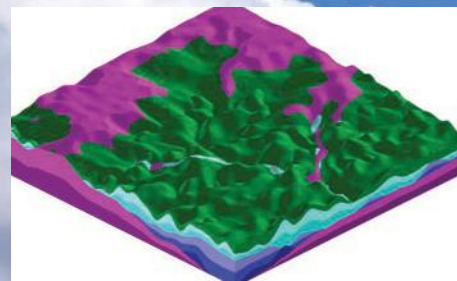
RockWorks gives the petroleum geologist the tools to get the job done: well spotting, mapping (bubble, structure, isopach, land grid, log maps), cross sections, stratigraphic modeling, reservoir modeling and much more.

Mapping Tools

- Structure and isopach maps: contour maps with lines and color fills, custom color tables
- 3D surface displays
- Bubble maps of any well data (production, etc.)
- Well and lease spotting from Range, Township, Section descriptions
- Land grid and lease maps with section boundaries
- Coordinate systems/conversions: lon/lat, UTM, State Plane, local, custom
- Well location maps: customized symbols (e.g. well status), plan-view horizontal well traces
- Gridding algorithms: kriging, triangulation, inverse-distance, trend polynomial
- Grid model tools: filters, math operations, editor, imports and exports
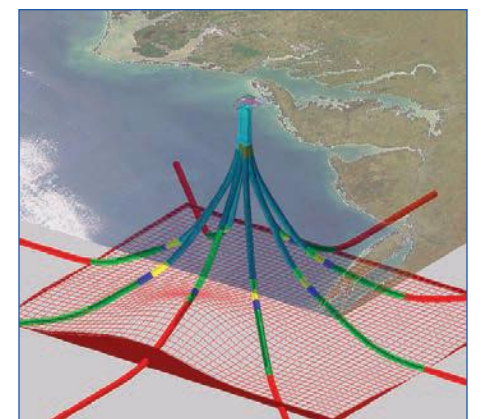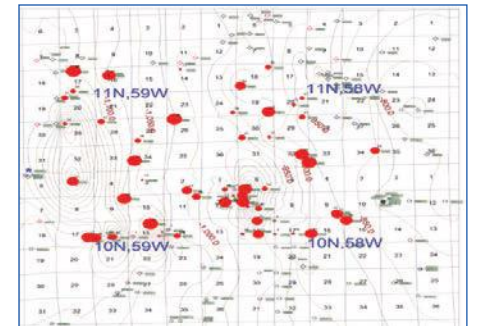
Well Database Tools

- Cross sections: hole to hole and projected
- 3D fence diagrams
- Correlations: model-based and "EZ" panels
- Horizontal and vertical wells: 2D and 3D, flexible log layout
- Stratigraphic modeling of all/selected formations
- Solid modeling of lithologic, geophysical, geotechnical, geochemical data, with display as voxel or isosurface diagrams
- Geosteering: optimal well paths based on target formations, lateral and 3D displays
- Well database for well locations and miscellaneous well data, formation contacts, raster images, geophysical data, lithology, well construction and production
- Data imports—Excel, LAS, LogPlot, IHS, KGS, Tobin, other databases
- Stratigraphic contacts from digital elog data or raster logs
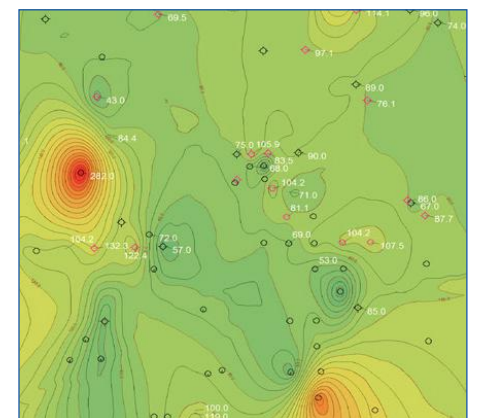
Other Tools

- Structural geology diagrams
- Graphic output: 2D and 3D output to RockWorks, Google Earth
- 2D editing tools: contour lines, text, shapes, legends, images
- Snapping tools for hand-drawn correlations
- Composite scenes in 3D with maps, logs, surfaces, solids, panels, surface objects
- Page layout program for small to large format presentations and posters
- Exports to GIS Shapefiles, CAD DXF, raster formats, Google Earth
- Image import, rectification, depth-registration
- Program automation
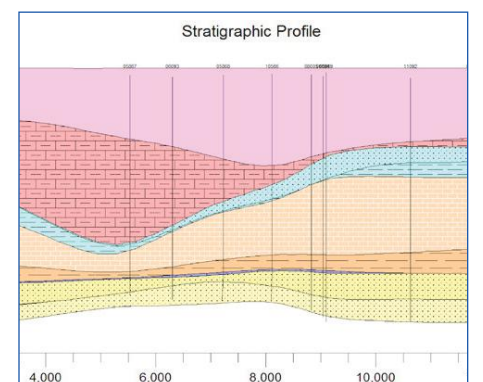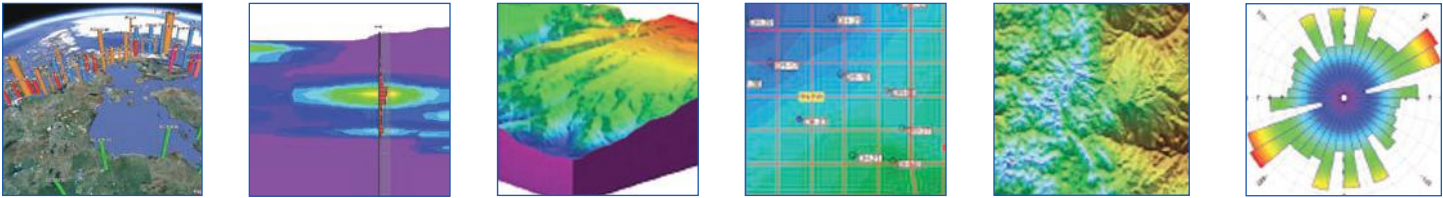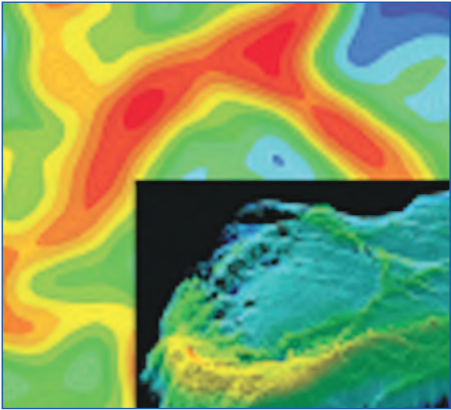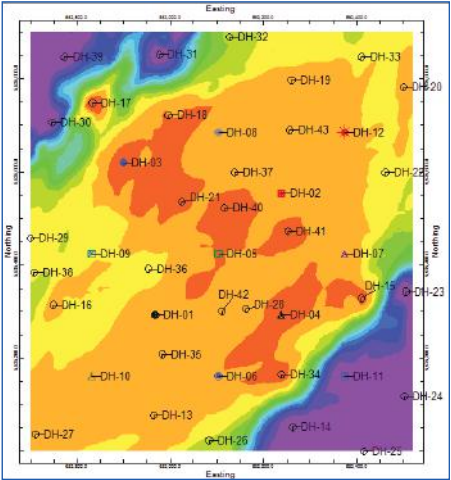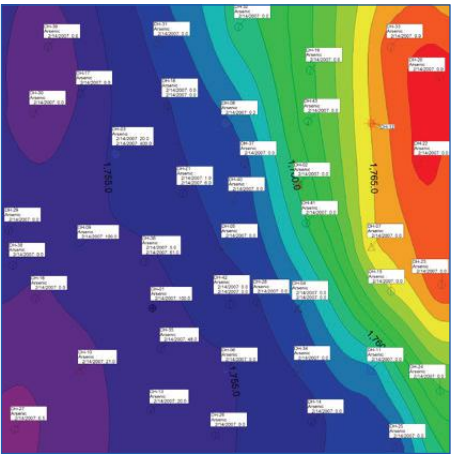
RockWorks17 is offered with three different feature levels: Basic, Standard, and Advanced.

All three levels include the Utilities portion of the RockWorks program. The Utilities has a row-and-column datasheet and numerous tools for mapping XYZ data, modeling XYZG points, creating stereonets and rose diagrams, creating Piper, Stiff and Durov plots, and much more. This is the general RockWorks "toolbox."

All feature levels also include the three Graphic Output programs: RockPlot2D, RockPlot3D and ReportWorks.

All three levels also include the Borehole Manager and its local database for storing and managing borehole-based data.

RockWorks Basic

With Basic, the borehole processing tools are limited to observed data—no modeling: Borehole location maps, 2D and 3D strip logs, and striplog profiles and cross sections. Simple correlation panels are offered for Stratigraphy, I-Data and P-Data in 2D section diagrams.

RockWorks Standard

With Standard, you get all of the borehole modeling tools for the subsurface data offered in the Lithology, Stratigraphy, I-Data, T-Data, P-Data, Fractures, Aquifers and Vectors menus, and all of the 2D and 3D diagrams and maps these menus contain.

RockWorks Advanced

With Advanced, you can connect to a SQL-Server database on a network, run RCL scripts to automate program processes, apply 3D faults to surface and solid models. You also have access to the RockWare GIS Link, to the tools in the well Production menu, and can import commercial PLSS land grids.
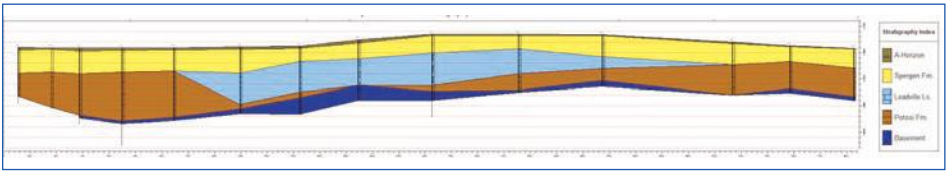
RockWorks Feature Levels

License Level	Basic	Standard	Advanced
Single License price starting at	$1,500	$3,000	$5,000
Network License price starting at	$2,625	$5,250	$8,750
Annual Rental price	$650	$1,300	$2,200
Academic Classroom License (10 user)	$550	$1,000	$1,600
Utilities (including EarthApps)	✓	✓	✓
Logs and Sections	✓	✓	✓
Borehole-Based Modeling	——	✓	✓
SQL Server; Automation, 3D Faulting	——	——	✓
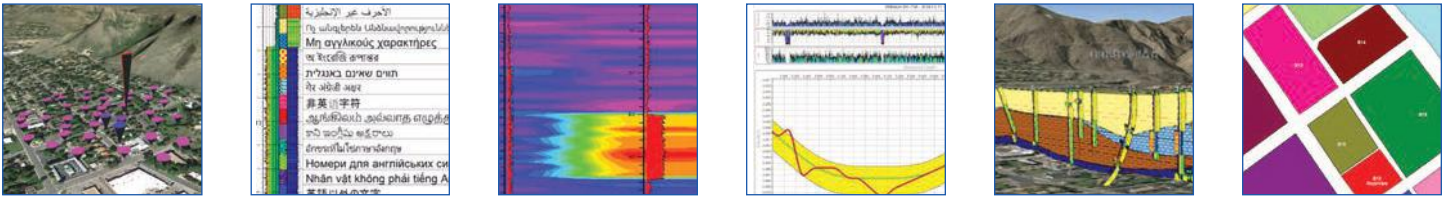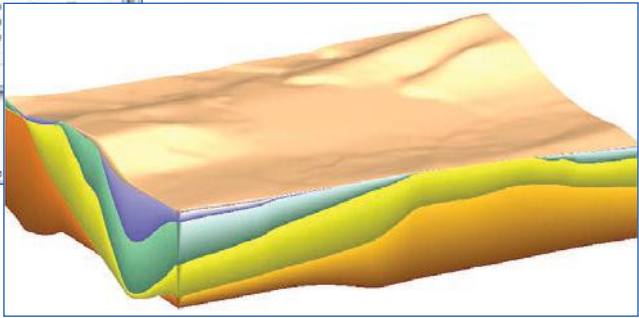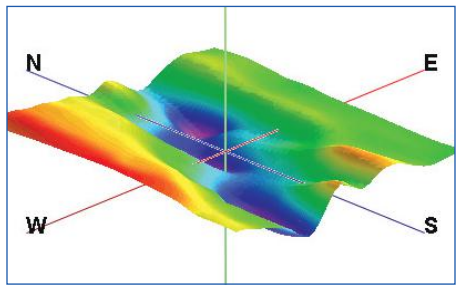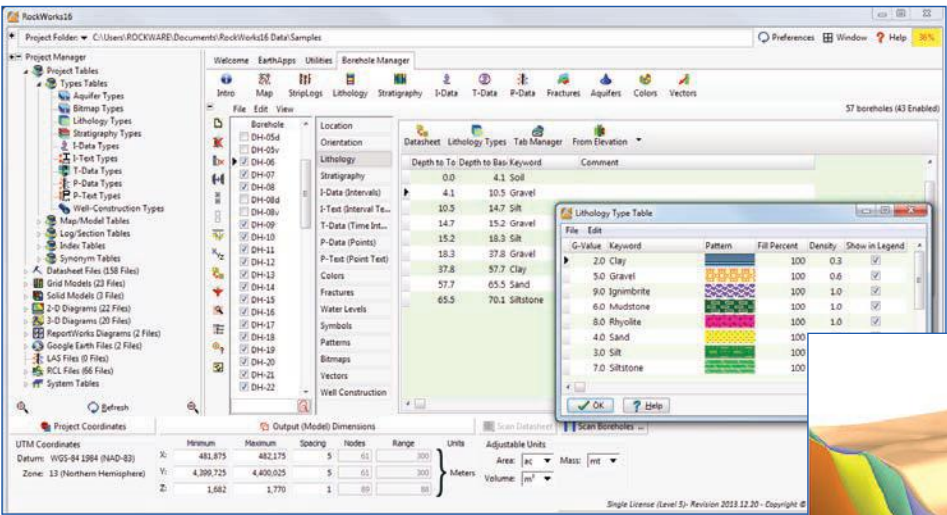
$399

Generate RockWorks strip logs, cross-sections, profiles, fence diagrams and contour maps using ArcMap and RockWorks. (Included in RockWorks Advanced Level.)

Requires RockWorks17 and ArcGIS 10

Import RockWorks boreholes to the geodatabase

Section tool

Profile tool

Options

Fence tool

Contour map tool

Isopach map tool

Striplog tool

RockWorks cross section line

RockWorks profile line
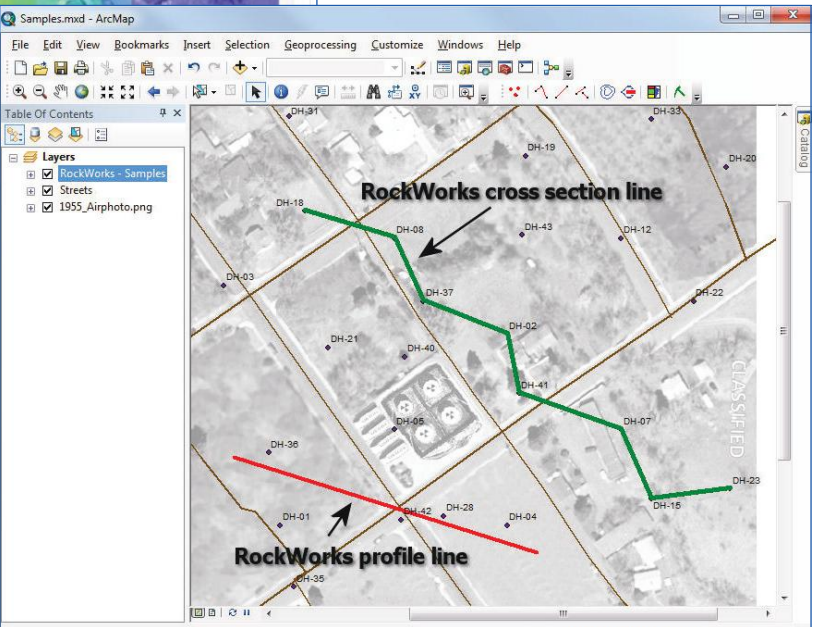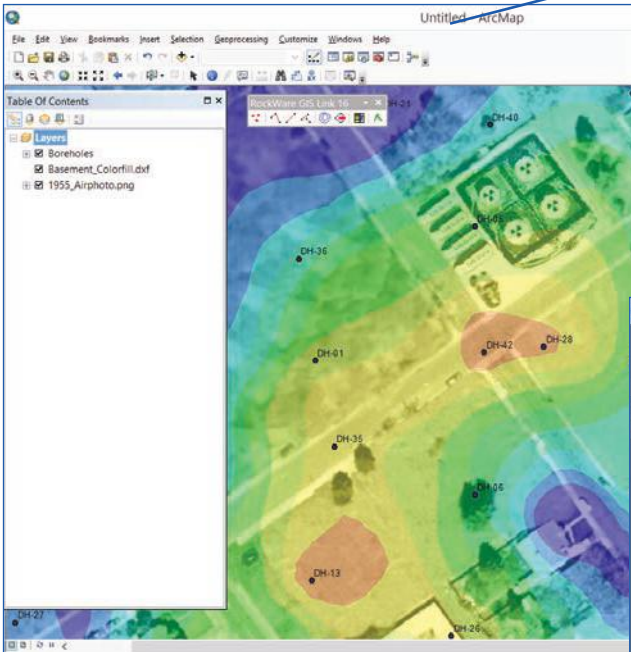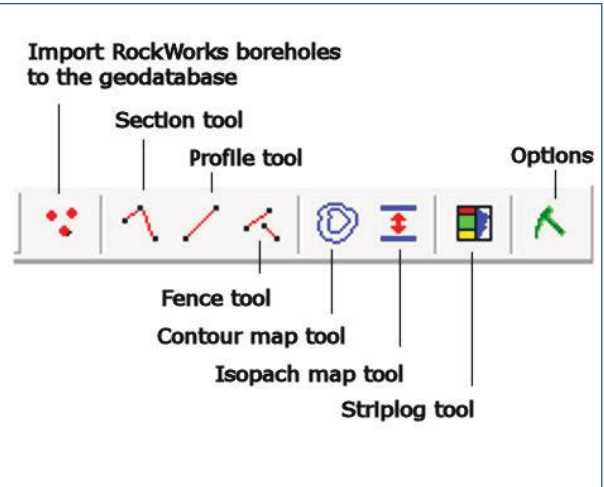
Program Features

• Install the RockWare GIS link as a toolbar in ArcMap

• Import your RockWorks borehole locations as a layer in an ArcMap geodatabase

• Create a 2D striplog for any borehole location using the RockWorks engine

• Create 2D profiles, 2D cross-sections and 3D fence diagrams for any of these data types: lithology, stratigraphy, water levels, interval-data, time-data, point-data and fractures

• Create either straight-line or interpolated diagrams for stratigraphic data

• Create line- or color-contour maps of ground surface elevations, formation tops or formation thickness, and display them as a DXF layer in ArcMap

RockWorks fence panel lines

An easy-to-use log plotting program with a flexible log layout. Plot single-page logs for shallow borings or multi-page/continuous logs for deep wells. LogPlot has been widely used in the environmental, geotechnical, petroleum and mining industries since 1983.

Academic $299   Single $899   Network $1,573
Download free trial at rockware.com

The Log Designer

The Log Designer allows you to quickly design borehole and well logs and modify existing design templates.

· Easy to use, with point, click, multiple-select and alignment capabilities

· Multi-pane re-vamped design window displays headers, footers and log body

· Two header and footer designs, full page report header

· Well information linking between data file and header/footer fields

· Macros for dates, page numbers and well locations

· Header/footer images, patterns, symbols, curve and bargraph legends, notes and text

· The log body can include any number and combination of columns, including lithology patterns and descriptions, cuttings percent columns, single and cross-plot curves, bargraphs, interval and point-based text, tadpoles, fracture traces (NEW), well construction, raster images, fillbars, water levels and other symbols and scale bars

The Data Editor

Type, copy/paste and or import your log data into the Data Editor.

· Tabbed data sheets with a flexible layout, for easy data entry

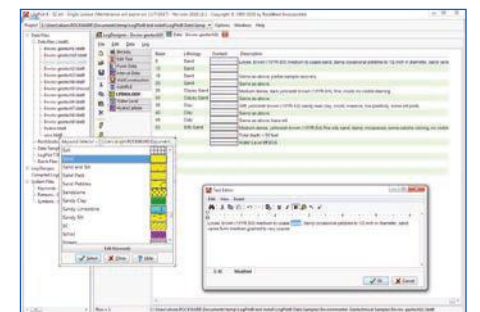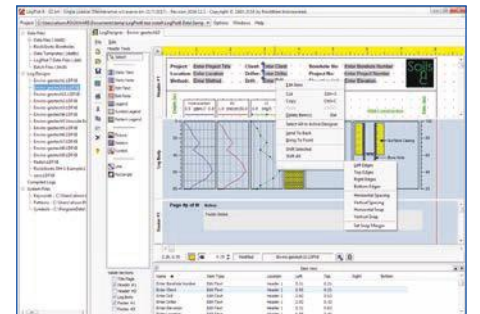· Data sheets added on the fly, or automatically updated from the log design

· Double-click access to RockWorks borehole records, data can now be extracted from and written directly to the RockWorks17 database

· Data import from LAS, Excel, DBF, AGS and text

· Data export to LAS, Excel and RockWorks

· Data types: lithology/stratigraphy, interbeds, cuttings percentages, curves, interval and point-based data and text, general comments, header/footer text and notes, symbols, fillbars, downhole survey, tadpoles, fractures and well construction

· Easy linking of keywords ("sandstone") to graphic patterns and colors

The Log Viewer

· Create paginated or continuous logs

· Compile and display multiple logs at once

· Quickly re-display logs at any scale and adjust header/footer settings

· Use your mouse to view depth/elevation at any point on the log

· Graphic export options include PDF, HTML (for display online), BMP, JPG, TIFF and PNG

· Print your log, export an image of a single page or export all pages in a single image
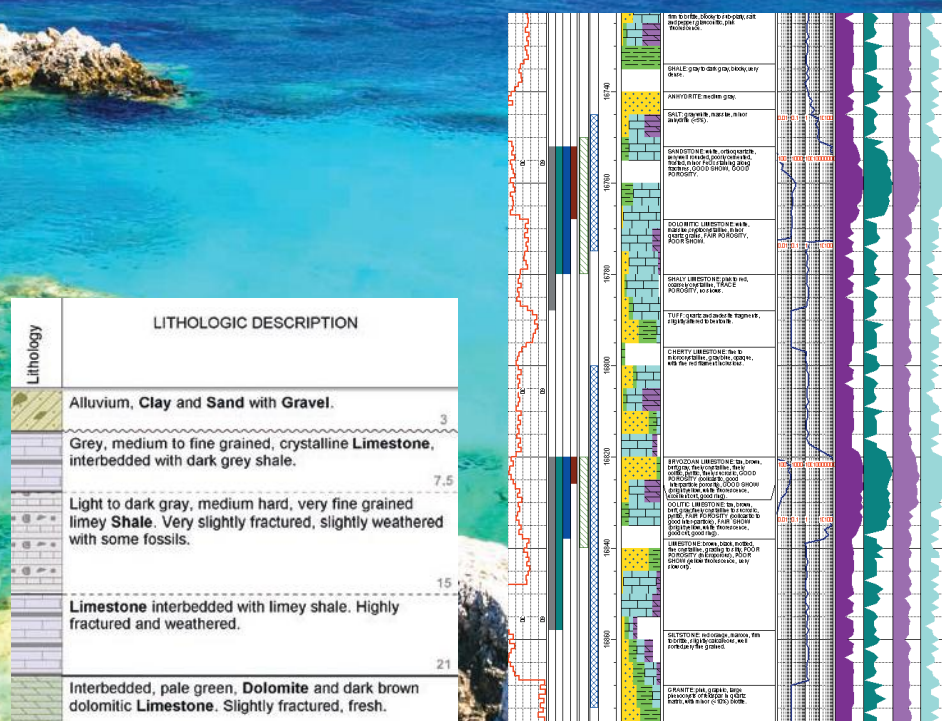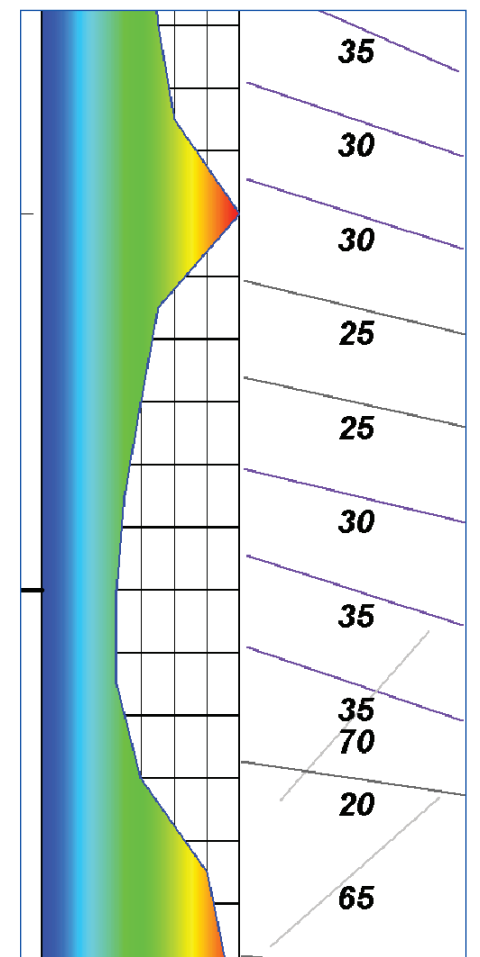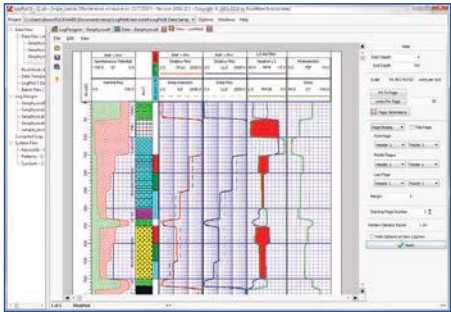
Other New Features in LogPlot8

New Patterns
The LogPlot Pattern Editor now supports the new pattern library with filled shapes and an unlimited number of items.

New Streamlined Interface
The LogPlot Data Editor, Log Designer and LogViewer have been redesigned for use on multiple monitors and to make the creation and modification of logs easier than ever.

New Log Data Tools
• New text formatting for text descriptions—bold, italic, underline, color, superscript, subscript or symbols
• New wavy and thick contact lines for display in Lithology pattern columns
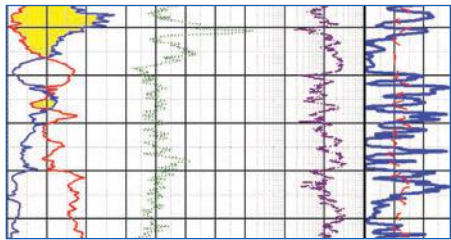• LogPlot now supports Unicode for non-Latin characters
• New tools add increased flexibility when defining data page names and columns
• New Data Templates to store customized data entry forms

New Log Display Tools
• Header/Footer symbol and pattern legends
• Log body fracture columns and water level symbols
• Offset options for interval text columns
• New color gradient options for log body curves
• New static text macros
• Curve/bargraph headers that can move when the column location is adjusted
• Rotated Header text and notes

New Network License Manager
• Easy to set up
• Borrow a license for use in the field

Oil & Gas
• Well/borehole geophysics
• Gas curves
• Drilling rate, RPM and Weight on Bit
• Lithologic Cuttings data
• Formation tops and descriptions
• Casing and perforation diagrams
• Drill Stem Test intervals
• Fossils
• Core data, including intervals and fractures
• Pay zones and show intervals

Environmental
• Soil and rock type symbols and descriptions
• Sample symbols, names, descriptions and data
• VOC data collected from MIP or other sampling devices
• OVA/PID data
• Borehole geophysics
• Detailed well construction diagrams, including nested wells
• Water level data
• Water and soil contamination information
• Blow counts, RQC and other geotechnical parameters
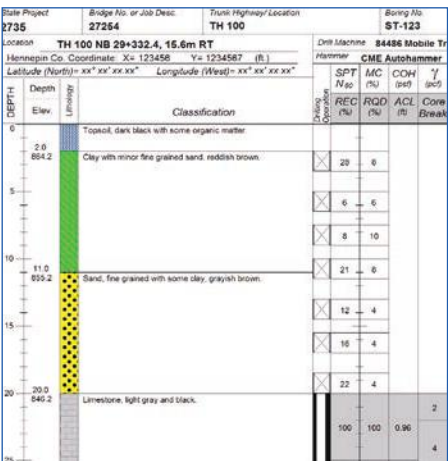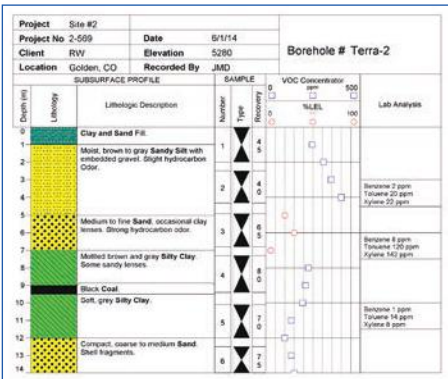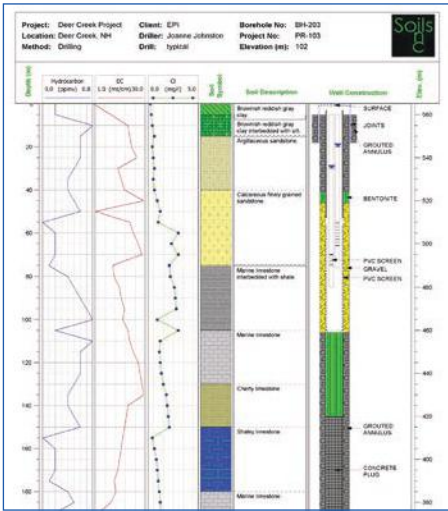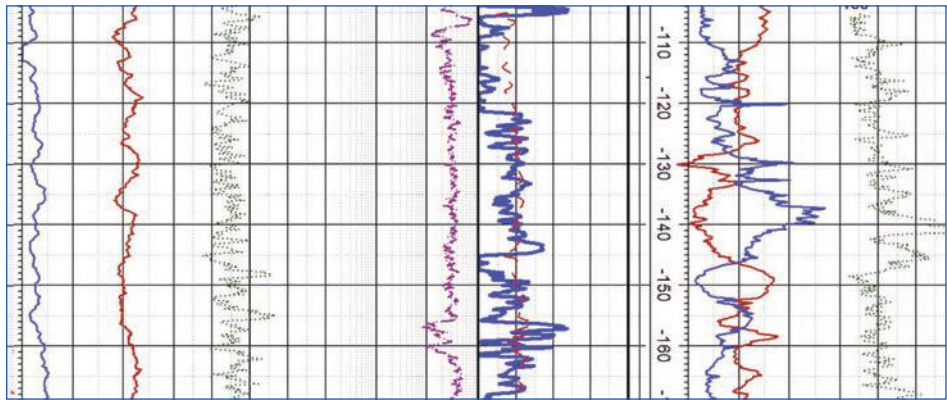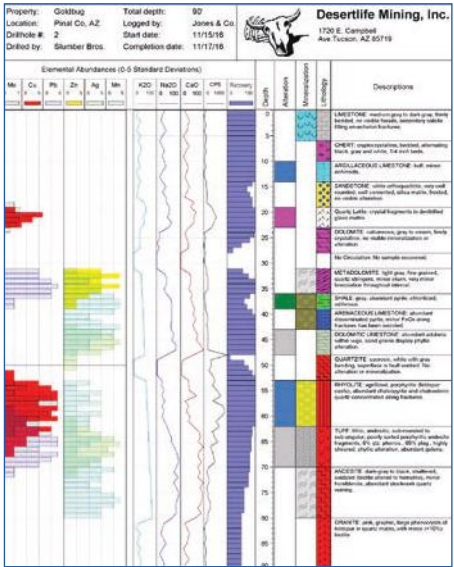
Mining

- Soil and rock type symbols and descriptions
- Core symbols and data, including Recovery and RQD
- Assay results
- Munsell Color Codes
- Fracture spacing, filling and orientation
- Alteration, mineralization and oxidation values
- Casing and well construction
- Water level data

Geotechnical

- Soil and rock type symbols and descriptions
- Blow counts, RQD and other geotechnical parameters
- Core symbols and data, including Recovery and RQD
- Fracture information, including spacing, orientation and aperture
- Sample symbols, names, descriptions and data
- Borehole geophysics
- Atterburg Limits
- Grain Size and sieve analysis results
- Water level data
- Water and soil contamination information
- CPT data, plotted as curves or colored intervals
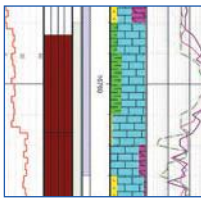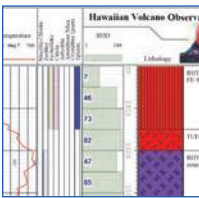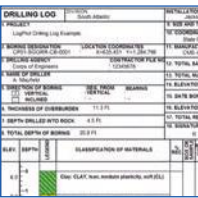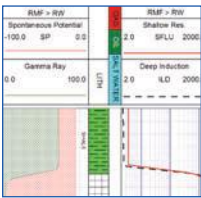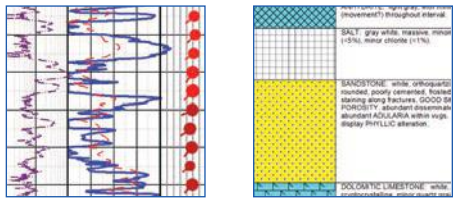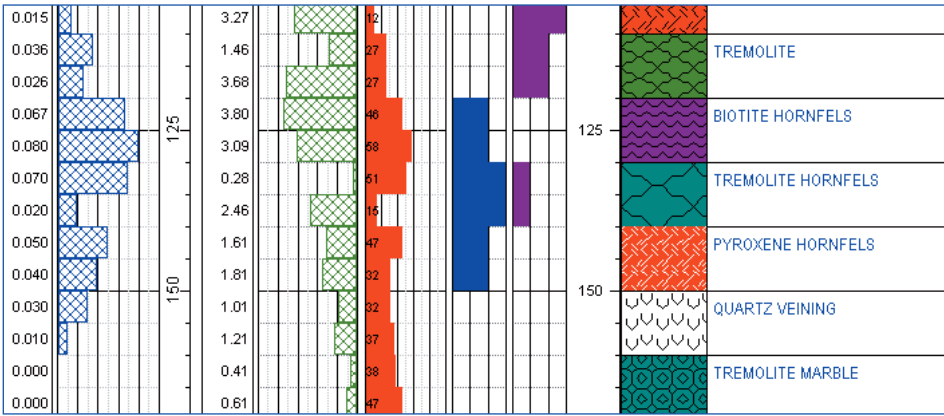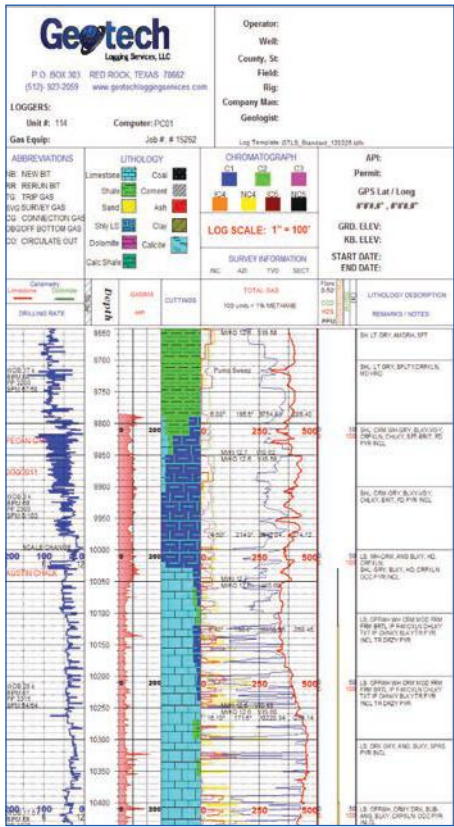
$349
Download free trial at rockware.com

Still storing your water analysis in Excel®? AqQA was created with water engineers and aqueous geochemists in mind—or for that matter, anyone who keeps water chemistry data in a spreadsheet. Analyzing your water testing data is as easy as 1, 2, 3 with AqQA:

1) Paste your water analysis data in the "Data Sheet" tab

2) Click on the "Data Analysis" tab to check water testing data for internal consistency, and view other calculated water properties

3) Use the "New Graph" tab to create publication quality graphics—includes Piper diagram, Stiff diagram and nine other plot types

AqQA features

- Six tests for water data consistency according to AWWA 1030-E Standard Methods
- 11 plot types: Series, Time Series, Cross Plot, Ternary, Stiff, Piper diagram, Durov, Schoeller, Ion Balance, Pie Chart and Radial Plot
- Calculates carbonate equilibria, TDS, density, conductivity, hardness and more
- Flags violations of water quality standards
- Check replicates and standards
- 200 pre-defined analyte types—inorganic, organic, biological assay, radioactivity, isotopes—or define your own

With the AqQA spreadsheet, you can:

- Paste data directly from Excel
- Convert units with a mouse click—no more keying in mole weights
- Use common spreadsheet tools such as copy, paste, transpose, sort and many others
- Compare replicate analyses and check standards
- Mix samples
- Flag exceedances of regulatory limits
- Check for internal consistency against AWWA standards
- Calculate fluid properties such as water type, TDS, hardness, conductivity and carbonate speciation
- Calculate calcite saturation and CO2 fugacity

Call for Pricing
Download free trial at rockware.com

Solve Challenging Subsurface Flow Problems with PetraSim

PetraSim is the graphical interface for the TOUGH family of simulators. Developed at Lawrence Berkeley National Laboratory, TOUGH2 and its derivatives are recognized for their broad range of subsurface simulation capabilities, including heat and multi-phase flow and reactive transport. PetraSim helps you access the power of TOUGH2 in an integrated 3D environment that includes mesh generation, parameter definition, execution and display of results. Save valuable time and increase model reliability with PetraSim.

Interfaces

- **TOUGH2** *– for multi-phase fluid and heat flow in porous and fractured media
- **T2VOC**– for 3-phase flow of water, air and a volatile organic compound
- **TMVOC**– for 3-phase flow of water, gas and a multicomponent mixture of volatile organic compounds
- **TOUGHREACT** *– for coupled modeling of subsurface multiphase fluid and heat flow, solute transport and chemical reactions
- **HydrateResSim** ** – for simulating behavior of hydratebearing geologic systems

  * A standard PetraSim license includes TOUGH2, T2VOC, TMVOC and TOUGHREACT v1.2 simulators. Use of TOUGH v2.1 and v3, TOUGHREACT v2 a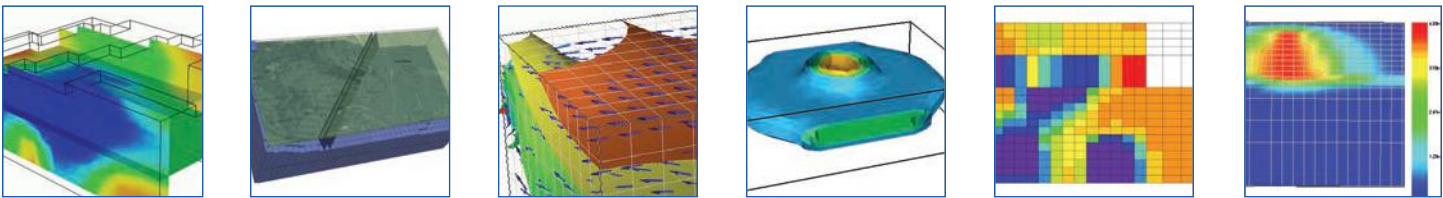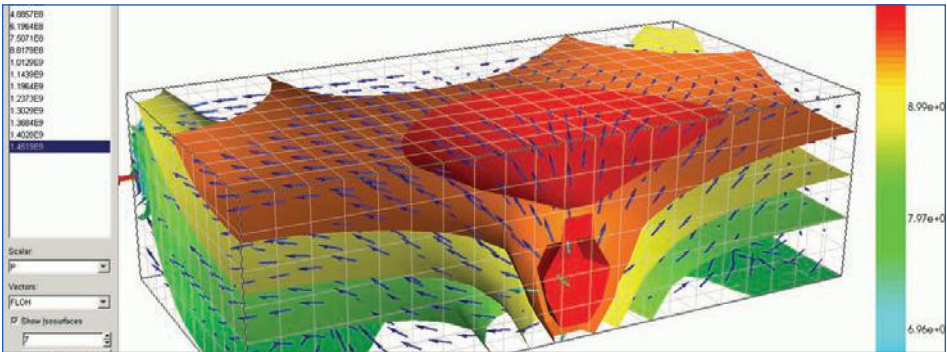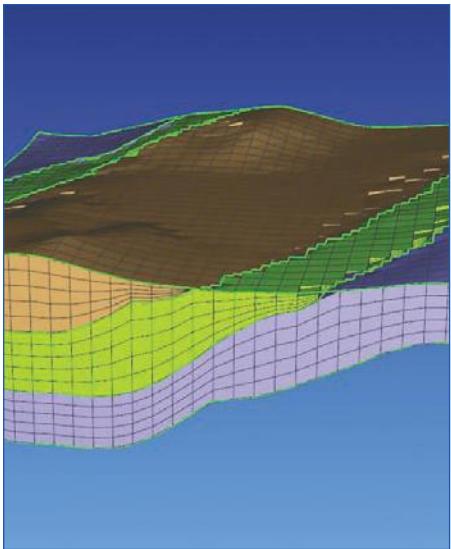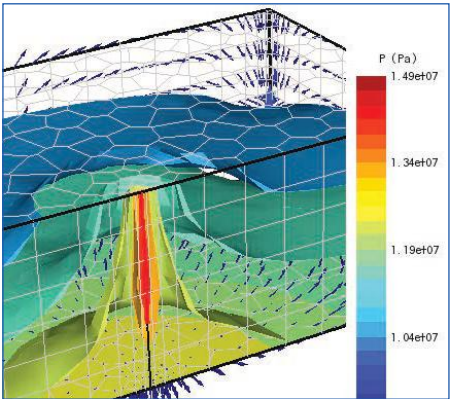nd v3, and TOUGH2-MP requires the purchase of the simulator through Lawrence Berkeley National Laboratory in addition to the PetraSim interface.

  ** HydrateResSim is a free simulator available through the National Energy Technology Laboratory of the U.S. Department of Energy

With PetraSim you can:

- Create complex flow, reactive transport and heat transfer models
- Dramatically reduce TOUGH2 model creation time
- Eliminate TOUGH2 input errors
- Use the intuitive toolbar for step-by-step guidance
- Select from the many fluid property options for your model
- Use enhanced TOUGH2 simulators available only with PetraSim
- Import well data in batch ASCII files
- Interactively create and edit 3D and axisymmetric grids
- Import rotated XYZ layer geometry and define conforming grids, or import Petrel/Eclipse grids
- Define irregular model boundaries and grids using Voronoi tessellation
- View graphs of relative permeability and capillary pressure functions
- Use dialogs to define solution and output controls
- Seamlessly run TOUGH simulators using the executables integrated into PetraSim
- Graphically monitor the solution progress
- Display 3D iso-surfaces, 3D block plots and vertical and horizontal slices
- Create time history plots of individual cell results, connections and wells
- Use line plots to display results along any 3D line or well trace
- Export result data in comma separated variable format
- Solve large problems using TOUGH2-MP (parallel version)

Fluid Properties Modules

Fluid Property Module	Module Description	Simulator
EOS1	Two Phase Water	TOUGH and TOUGHREACT
EOS2	Water and CO_2	TOUGH and TOUGHREACT
EOS3 and EOS4	Water and Air	TOUGH and TOUGHREACT
EOS5	Water and Hydrogen	TOUGH
EOS7	Water, Brine and Air	TOUGH
EOS7R	Water, Brine, Air and Radionuclides	TOUGH
EOS8	Water, Air, "Dead" Oil	TOUGH
EOS9	Saturated/Unsaturated Flow	TOUGH and TOUGHREACT
EWASG	Water, NaCl, Non-Condensible Gas	TOUGH
ECO2N	Water, CO_2 and NaCl	TOUGH and TOUGHREACT
ECO2M	Water, CO_2, and NaCl including super- and sub-critical conditions, and phase change between liquid and gaseous CO_2	TOUGH (v2.1 only)
EOS7C	CO_2 or Nitrogen in natural gas (methane) reservoirs	TOUGH (v2.1 only)
T2VOC	Water, Air, and Volatile Organic Compound	T2VOC
TMVOC	Water, Air, and up to 19 Volatile Organic Compounds	TMVOC
HydrateResSim	Hydrates	HydrateResSim

Applications for PetraSim and the simulators it supports include:

- Coupled process modeling (thermal, hydrologic, chemical, mechanical, biological)
- Carbon sequestration and hydrocarbon recovery
- Methane hydrate dissociation and recovery
- Performance assessment of nuclear waste repositories
- Geothermal reservoir studies
- Vadose zone hydrology.
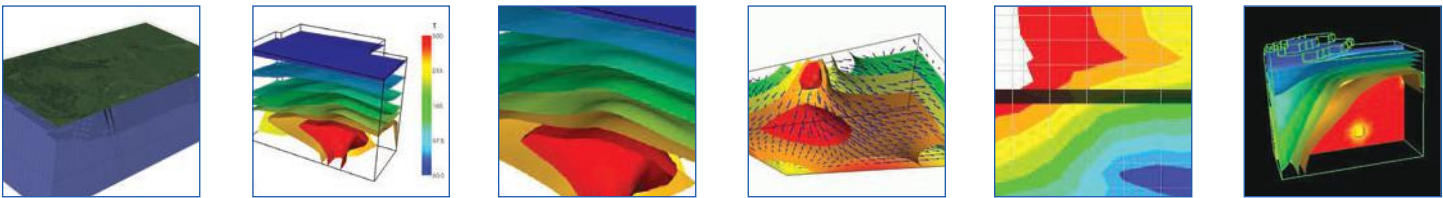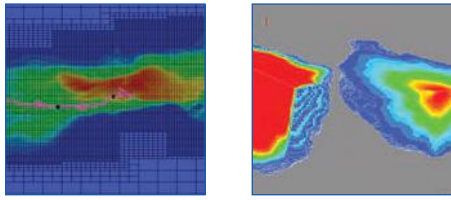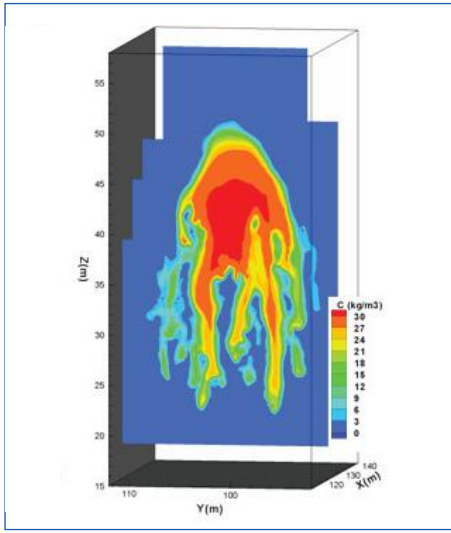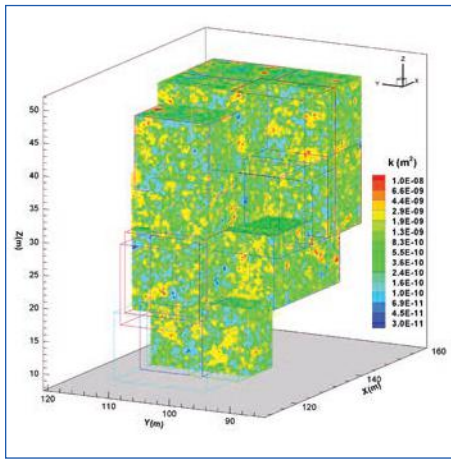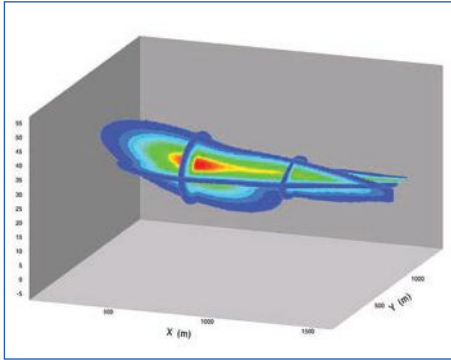
$999
Download free trial at rockware.com
With Adaptive Groundwater you can:

- Quickly create three-dimensional flow and transport models

- Significantly reduce model development cost

- Develop very-large, high-resolution regional models because the parallel AMR technique breaks large problems into many small parts

- More accurately and efficiently compute hydraulic head and solute concentration solutions because grid refinement is automatically added in regions of high head and/or concentration gradients

- Quickly change the grid resolution by simply varying the number of AMR levels

- Accurately simulate thin and highly-stratified plumes because the higher-order Eulerian-Lagrangian transport solution significantly reduces numerical dispersion

- Be fully prepared for future parallel computer architecture enhancements (i.e., multiple-core processors) because the software is fully multi-threaded

- Use much larger time steps when simulating advection-dominated transport

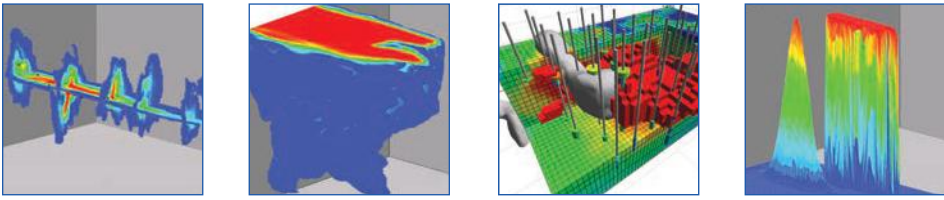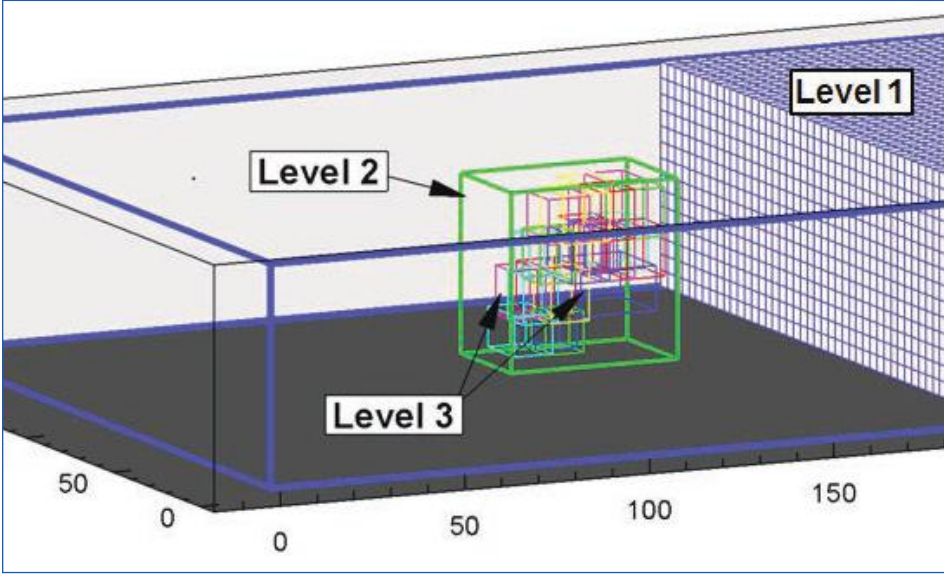- Reduce computational effort because the simulation time step is automatically adjusted based on the velocity field and cell sizes (i.e., Courant number)

- Visually monitor simulation progress during model runs

Starting at $3,682
Download free trial at rockware.com

WellCAD is a PC-based composite log package, which combines comprehensive graphic editing mechanisms and data processing tools. Combining technically excellent display, editing and analysis capabilities for well data, WellCAD has become the standard log composite software in the Mining, Oil and Gas and Geotechnical industries and is used in a wide range of applications

Features

- **Import/Export** – ASCII, CSV, TXT, LAS, BMP, JPG, TIF, GIF, plus many more industry specific formats

- **Data Presentation** – 2D and 3D borehole display of images, curves, intervals, points, lithology, stratigraphy, text, symbols, stacking patterns, biostratigraphy, engineering details and more

- **Depth Management** – Multiple depth management (time, depth, TVD) plus an advanced depth matching tool

- **Editing** – Slice, shift, merge, resample, and filter curves with results displayed alongside the original data

- **Computations** – Formula parser (curve calculator with multiple discriminators)

Optional Modules

- **Image & Structure Interpretation Module** – Borehole Image and Structure/Breakout Analysis

- **CoreCAD** – Interactive digital core description

- **Full Wave Processing Module** – Sonic Data Processing and Velocity Analysis

- **LIS/DLIS Module** – Import LIS/DLIS data

- **Deviation Module** – 3D well path visualization

- **Multiwell Module** – Borehole and correlated cross-sections

- **ODBC Connector Module** – Load and save data from/to ODBC compatible databases

- **Automation Module** – Automate your workflow using COM components
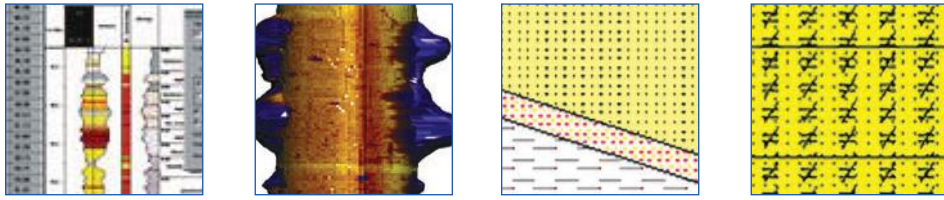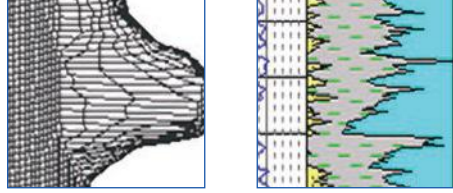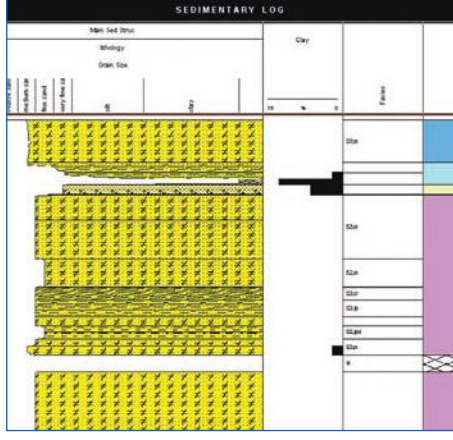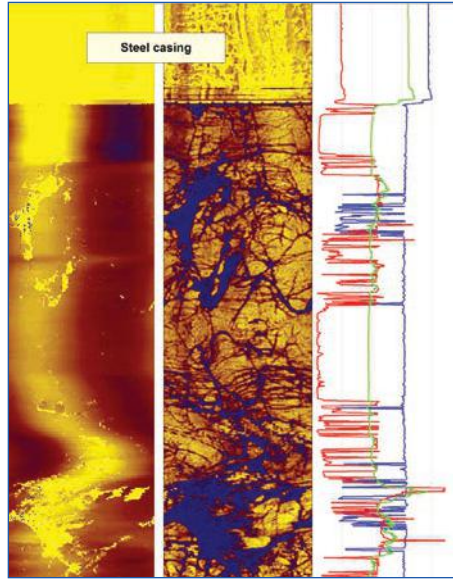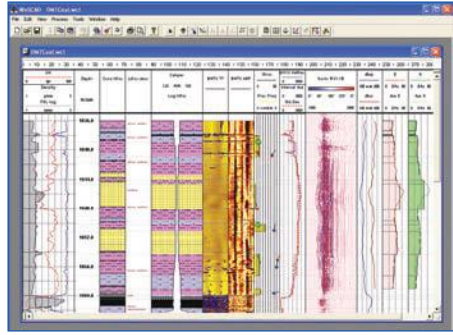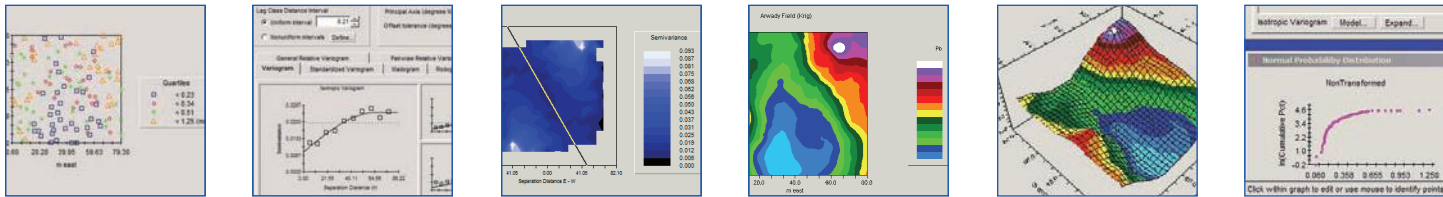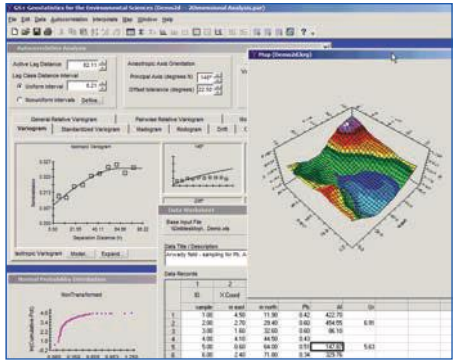
$399
Download free trial at rockware.com

GS+ is a comprehensive geostatistics software program that is fast, efficient and easy to use. GS+ provides all geostatistics components, from semivariance analysis through kriging and mapping, in a single integrated software program widely praised for its flexibility and friendly interface. Many users are surprised that geostatistical analysis can be so easy and intuitive. GS+ output is compatible with industry standards, can be used directly with many other programs, and accepts data files with as many as 2 billion records.
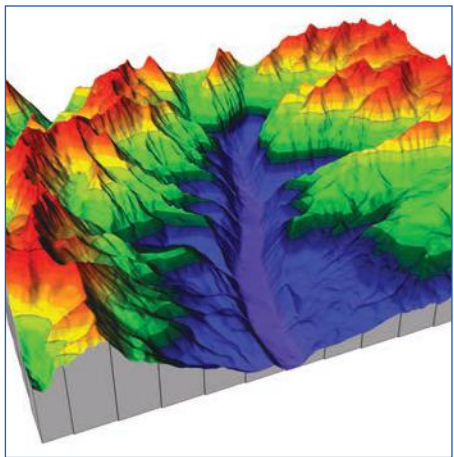
$849

Download free trial at rockware.com

A contouring and 3D surface mapping program that quickly and easily converts your data into outstanding contour, surface, wireframe, vector, image, shaded relief and post maps. Virtually all aspects of your maps can be customized to produce exactly the presentation you want using Surfer's software tools. Producing publication quality maps has never been quicker or easier.

Starting at $500
Download free trial at rockware.com

AQTESOLV is the original all-in-one package for the design and analysis of aquifer tests. From entry of field data to test analysis and report generation, AQTESOLV offers a complete and easy-to-use set of tools for the interpretation of pumping tests, slug tests and constant-head tests. Recently added features include the Agarwal method for recovery analysis, distancedrawdown plots, horiz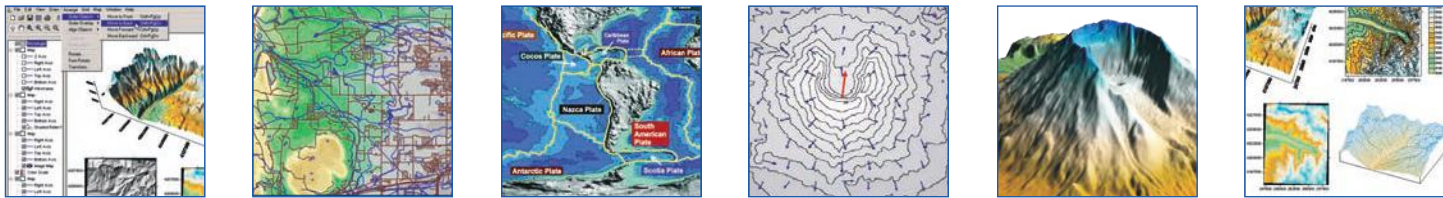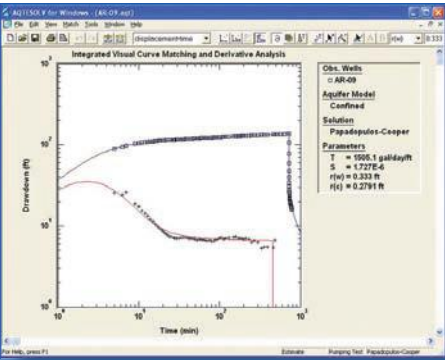ontal wells, groundwater mounding tools and automatic image well generation for bounded aquifers. AQTESOLV is the only aquifer testing package to feature an important new solution by Tartakovsky and Neuman (2007) for pumping tests in unconfined aquifers including effects from the unsaturated zone.

A Complete Package
- Data entry wizards
- Import wizard
- Diagnostics and derivative analysis
- Solution expert
- Visual curve matching
- Automatic curve matching
- Interactive sensitivity analysis
- Statistical analysis of results
- 17 plots and reports
- Contouring
- Test design and drawdown prediction
- Context-sensitive help

Comprehensive Test Methods
- Pumping tests
- Variable-rate tests
- Recovery tests
- Intermittent pumping tests
- Injection tests
- Step-drawdown tests
- Single-well tests
- Slug tests
- Constant-head (constant-drawdown) tests

Advanced Solutions
- Double-porosity models
- Single-fracture models
- Generalized radial flow model
- Horizontal wells
- Interceptor trenches
- Confined/unconfined conversion
- Water-table aquitard
- Wedge-shaped aquifers
- Channel aquifers
- Nonuniform aquifers
- Oscillatory slug tests
- Groundwater mounding

Groundwater Vistas™
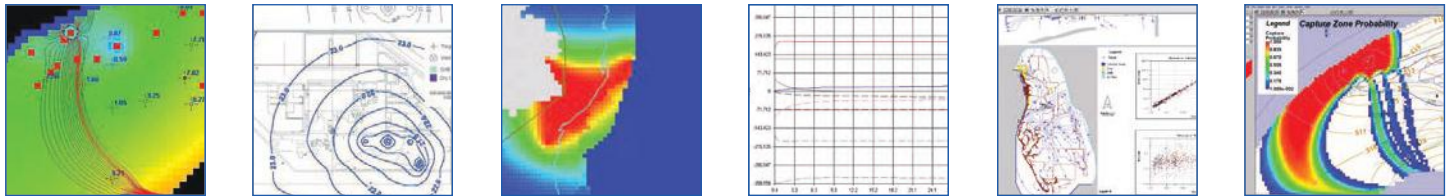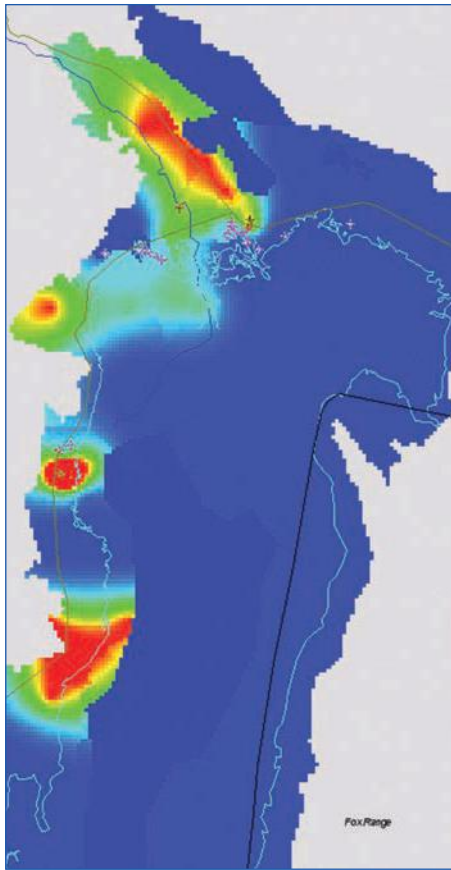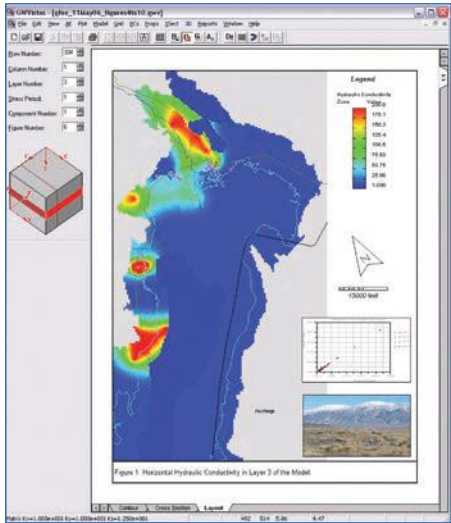
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Groundwater Vistas is a state of the art software package for 3D groundwater flow and contaminant transport modeling, calibration and optimization using the MODFLOW suite of codes. The advanced version of Groundwater Vistas provides the ideal groundwater risk assessment tool, with Monte Carlo versions of MODFLOW, MODPATH and MT3D and stochastic processing features.

Models included in Groundwater Vistas

- MODFLOW 6
- MODFLOW USG
- MODFLOW 2005
- MODFLOW 2000
- MODFLOW96 Double Precision
- MODFLOW88
- MT3DMS
- SEAWAT
- RT3D
- MODPATH
- Brute Force
- MODOFC
- SOMOS
- MGO

Models supported by Groundwater Vistas

- MODFLOWT
- MODFLOW-SURFACT
- SWIFT
- MT3D'99
- PATH3D

Other Features

- 64-bit available for the Advanced Version and higher
- Displays both plan and cross-sectional views
- 3D visualization using GW3D
- Run all supported models from within GV
- Advanced PEST support
- Automated parameter sensitivity analysis
- Imports-exports data from ArcView
- Imports existing MODFLOW models
- Imports data from SURFER and ASCII files
- Export results to SURFER, Slicer, DXF, BMP, WMF, EarthVision, EVS, Tecplot and ASCII files

Didger®

$389
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Didger is a highly accurate digitizing program that represents an invaluable addition to your software library. In seconds, Didger precisely transforms points, lines or areas from your paper maps, graphs, aerial photos, scanned raster images, imported vector files or GeoTIFF images to a versatile digital format you can use with your other software.
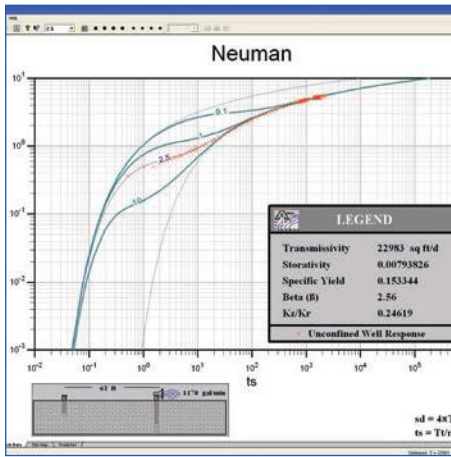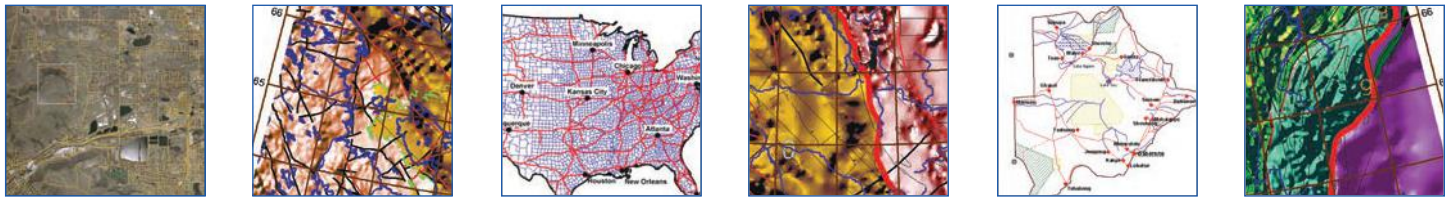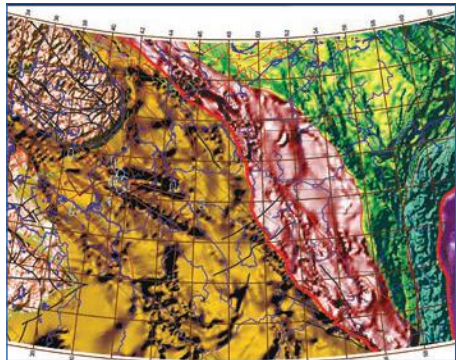
AquiferWin32™

$650
Download free trial at rockware.com

AquiferWin32 is for the analysis and display of aquifer test results. It combines powerful data management capabilities with everything you would expect in a Windows™ program and displays an unlimited number of type curves for multiple-type curve techniques. Other features include simultaneous optimization of multiple data sets, full control of parameter and data units, site map and wells displayed in plan view, customizable headers/footers supporting Bitmaps and Metafiles, exports to DXF and Metafile formats, customizable graphs and much more. AquiferWin32 now includes WinFlow, an easy to use flow and transport tool.
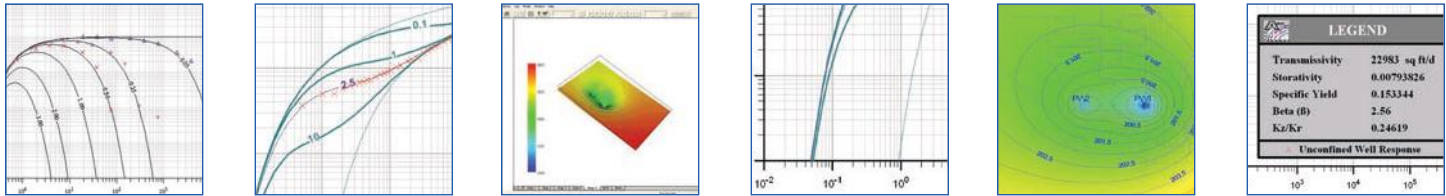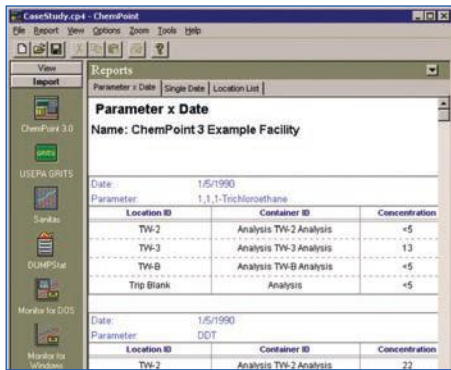
ChemPoint Pro®

$1,490
Download free trial at rockware.com

ChemPoint Pro is a complete data management and reporting solution for air, soil, surface water, ground water, ash, sludge and bio-tissue data analysis. ChemPoint Pro tracks facility information, sampling locations, sampling dates, monitoring well construction, sample containers, and laboratory analysis results, along with all the related information. There is support for multiple sample containers for a location, duplicate analysis, split samples and replicate measurements. ChemPoint Pro users can export data in a format compatible with most commercial statistical analysis applications. When you purchase ChemPoint Pro, you automatically receive a free copy of ChemStat.
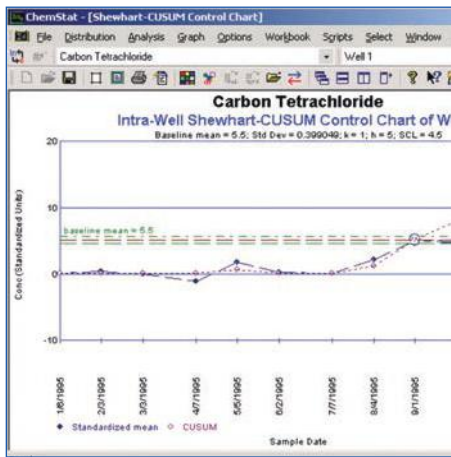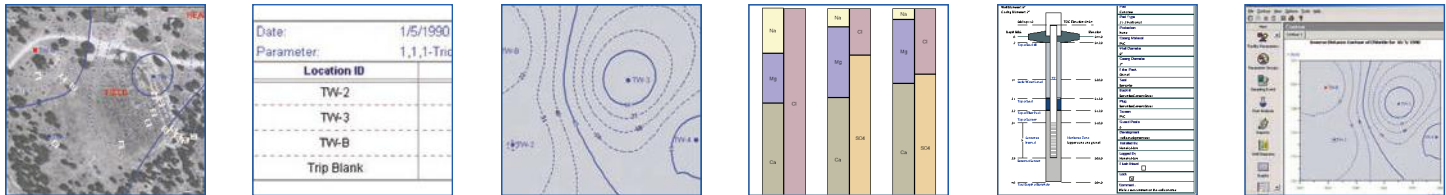
ChemStat®


$990
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ChemStat is the easiest and fastest application available for the statistical analysis of groundwater monitoring data at RCRA facilities. ChemStat includes most statistical analysis methods described in the 1989 and 1992 USEPA statistical analysis documents, USEPA Draft Unified Guidance Document, U.S. Navy Statistical Analysis Guidance document and other guidance documents and methods documented in popular statistical texts. Features include over 10 types of graphs, parametric and non-parametric analysis methods, and 15 tests for outliers, trend and distribution.
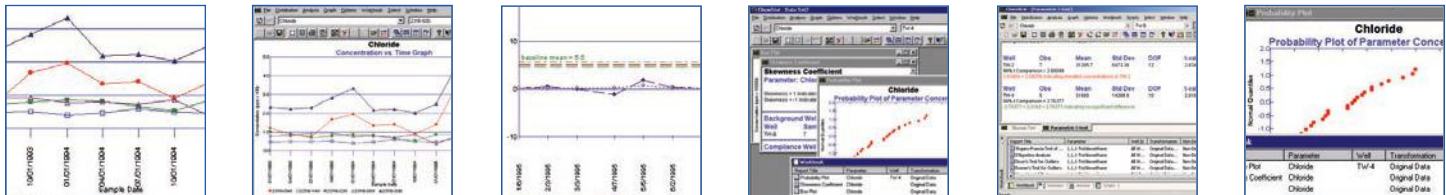
DeltaGraph®

$299 (Mac/Windows)
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DeltaGraph enables you to tell your story with the perfect chart for your data. DeltaGraph goes beyond the limits of everyday graphing software with an unrivaled selection of chart types and unprecedented formatting flexibility. Make your work stand out and distribute your charts virtually anywhere. And, because DeltaGraph is available for both Macintosh and Windows platforms, you are virtually unlimited in your application of high-powered, visual communication.

Features

- Analyze your data with DeltaGraph's Formula Builder and 50 mathematical and statistical functions; or, fit a curve to your data with advanced regression tools.
- Visualize your results the way you want with DeltaGraph. With over 80 different chart types and 200 different styles, both 2-D and 3-D, you have a choice of business and technical charts.
- Customize your charts using DeltaGraph. You have complete control. Nearly every chart element is customizable in color, font, style and location.
- Get results quickly and easily. DeltaGraph's Chart Advisor shows you the charting options for your data, and will even recommend a chart type and style based on the type of data and audience.
- Share your results with the highest quality output, both on screen and in print, thanks to PANTONE® color matching.
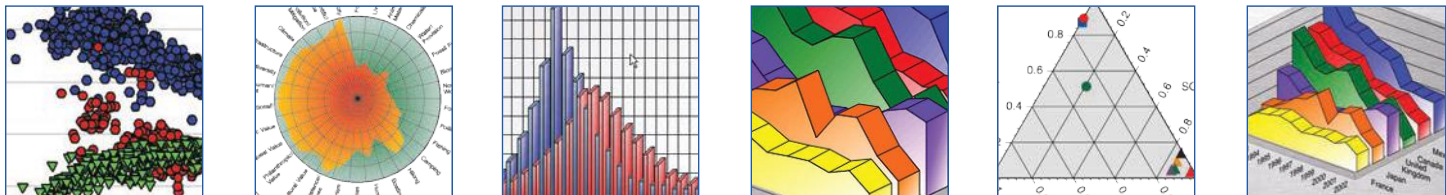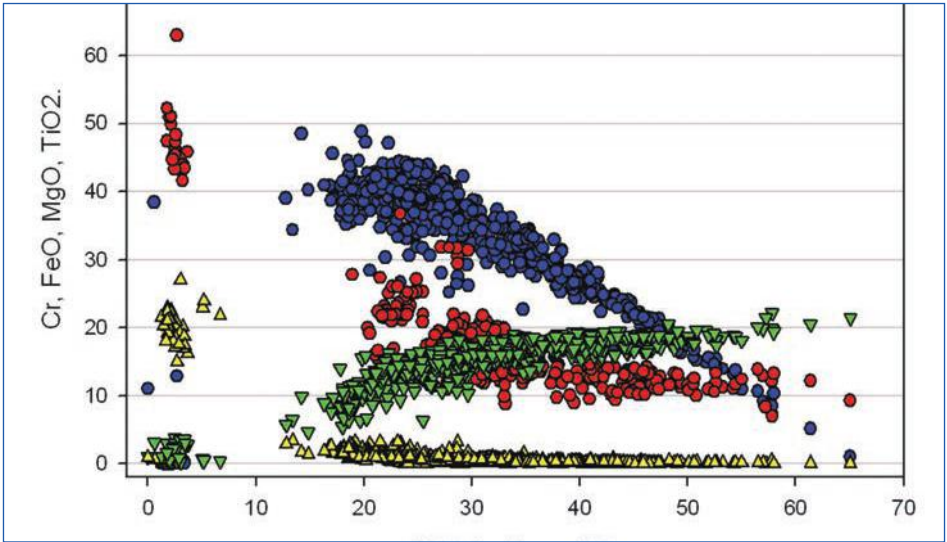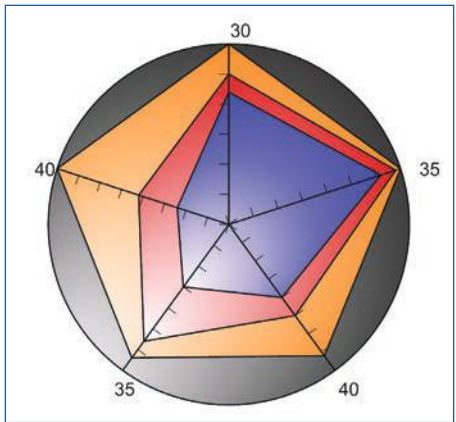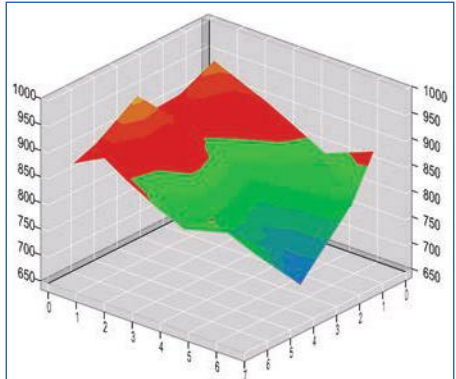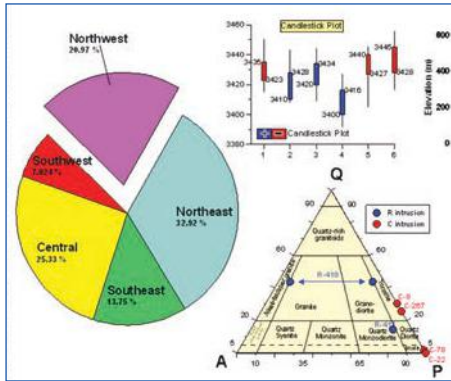
Grapher™

$489
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Grapher is easy-to-understand technical graphing software for anyone who needs to create publication-quality graphs quickly and easily. Display your data in one of more than 30 different graph types. Combine multiple graph types to present your data in a completely new way. Alter a property of any of the graph types to create compelling new graphs.

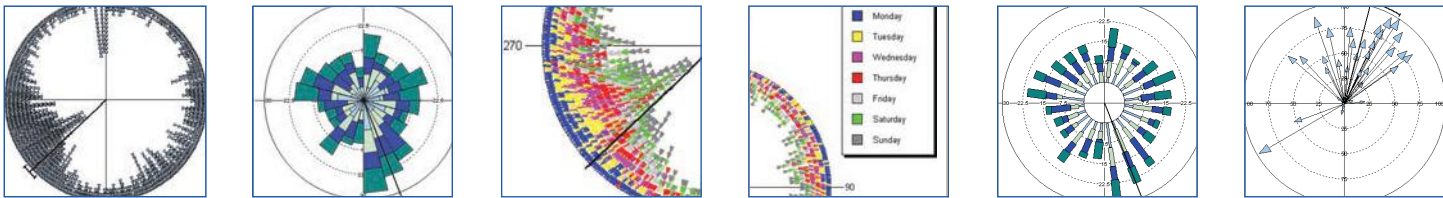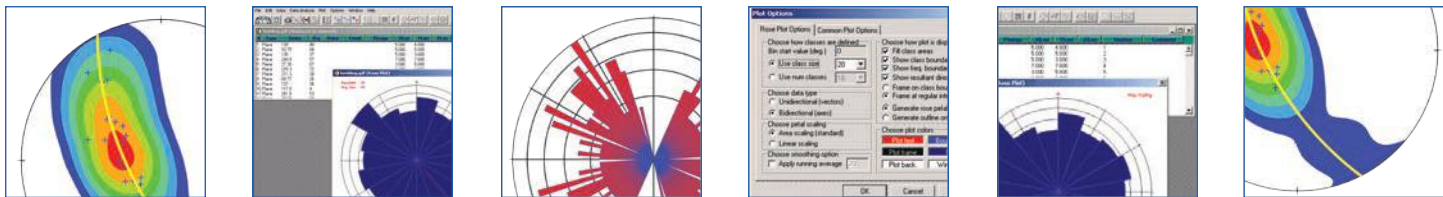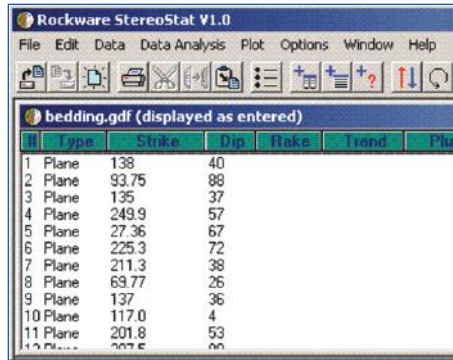# StereoStat™

$299
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An integrated platform for organizing, manipulating, visualizing and interpreting geological datasets, RockWare StereoStat is a must-have software for anyone who needs high quality rose diagram, stereo and tangent plots. Features include lower/upper hemisphere and equal area/angle plots, 1% and Kamb contouring, movingwindow smoothing, star plot generation, Fisher statistics, principal components least-squares analysis, object intersection, inter-object angles, paleostress analysis, interactive graphical data selection, plotting and subsetting based on attributes,

Oriana™

$475
Download free trial at rockware.com

Oriana for Windows calculates the special forms of sample and inter-sample statistics required for circular data (e.g. angles or directions measured in degrees, time of day, day of week, month of year, etc.). The analyses include basic statistics such as mean vector and confidence limits, single sample distribution tests like Rayleigh's, pairwise and multisample tests such as Watson-Williams F-Test and chi-squared test, and pairwise correlations. It also graphs your data in a variety of ways, including rose diagrams, allowing you to easily demonstrate patterns.


IgPet™

$289

IgPet provides tools for teaching and research in Igneous Petrology, allowing users to develop their own data files and use graphics routines to discover and interpret patterns of geochemical variation. IgPet draws most types of petrologic diagrams including Harker, Fenner, triangular and log plots. A calculator includes (+ - / *), Log, square, square root, ppm and chondrite functions. Special purpose diagrams, e.g. the Irvine and Baragar (1971) rock classification scheme, are stored in control files that can be expanded easily. CMAS projections include O'Hara, Walker, Grove, Baker and Eggler, etc. Spider diagrams include REES, Wood, Thompson, Sun and McDonough, etc.
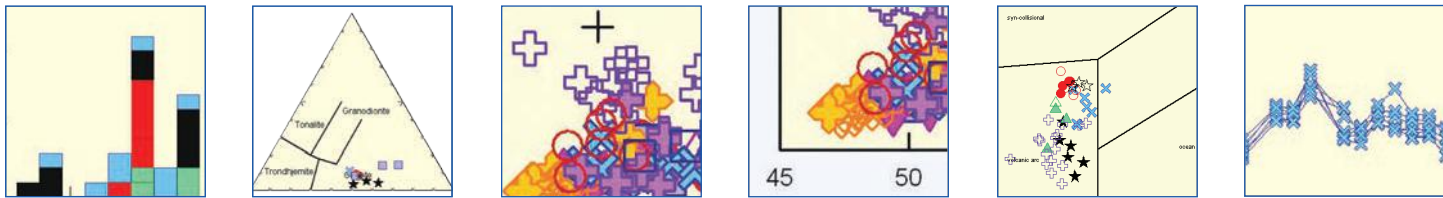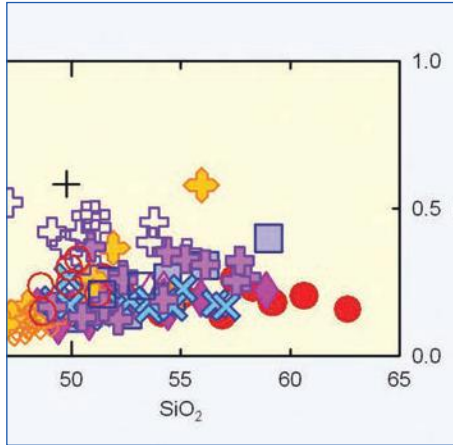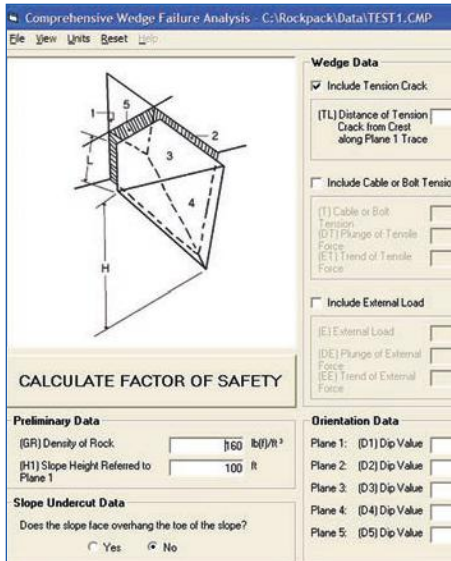
$875
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RockPack III is a package of programs useful for all phases of rock slope analysis and design where stability is controlled by the orientations and characteristics of rock mass discontinuities (joints, bedding, foliations, faults, etc). RockPack III is applicable to practically all rock excavations, including highway roadcuts, quarries, mines and building excavations.

Kinematic Stereonet Analyses

• Based on simple CSV text files

• Plot planar data as Dip Vectors or Poles to Planes

• Dynamically draw great circles

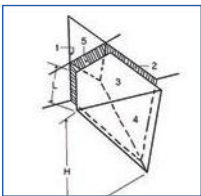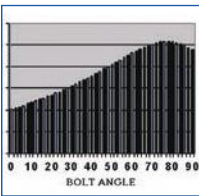• Markland's test for showing Slope Face, Friction Circle, Critical Zone and Toppling Zone

Other Features

• Imperial or Metric units

• Seismicity and surcharge considered in the PLANE program

• Artificial support design for PLANE, WEDGE and TOPPLING programs

• Water pressure considered in WEDGE analyses

Factor of Safety Models

• **PLANE** – for calculating the safety factor against translational sliding along discontinuities in a rock mass

• **RAPWEDGE (rapid wedge)** – for calculating the factor of safety against translational sliding of a wedge created in a rock mass by two intersecting discontinuities, whose line of intersection daylights in the slope face

• **CMPWEDGE (comprehensive wedge)** – for calculating the factor of safety for a wedge effected by a tension crack and water pressure in the tension crack

• **TOPPLE** – for quantitatively examining potential topples once they have been identified

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MapInfo Professional® is a powerful mapping and geographic analysis application. Designed to easily visualize the relationships between data and geography, MapInfo Professional helps business analysts, planners, GIS professionals—even non-GIS users—gain new insights into their markets, share information-rich maps and graphs and improve strategic decision-making.

MapInfo Professional expands location intelligence

• Discover trends hidden in spreadsheets and charts

• Perform powerful data analysis and calculations

• Create custom maps and content for analysis

• Now 64 bit for faster computing, better graphics and larger files

Use geographic insights to innovate business processes

• Manage location-based assets, people and property

• Optimize service and sales territories for greater efficiencies

• Deploy networks, infrastructure and utilities with confidence

• Map resources, plan logistics and prepare for emergencies

Data access

MapInfo Professional provides built-in support to access and view a variety of data formats directly. View your Microsoft Excel®, Microsoft Access®, Oracle®, Microsoft® SQL Server and many other file formats directly. You can also view images of virtually any format.

Data creation and editing

MapInfo Professional provides CAD data creation and editing tools to edit your tabular data such as values and names. Make all of your map and data changes in one application.

Display

Map display options are a great strength of MapInfo Professional. You can instantly shade, change style or mark territories, boundaries, highways, fiber lines or points based on any tabular data values through a simple wizard (using symbols, graduated symbols, charts or graphs).

Data and map publishing

MapInfo Professional provides a spectrum of options for this purpose. From the ability to export data to any format, to publishing large maps with legends and charts, MapInfo Professional seamlessly integrates across applications. In addition, MapInfo Professional is Web-enabled to publish static or interactive maps through easy-to-use wizards.
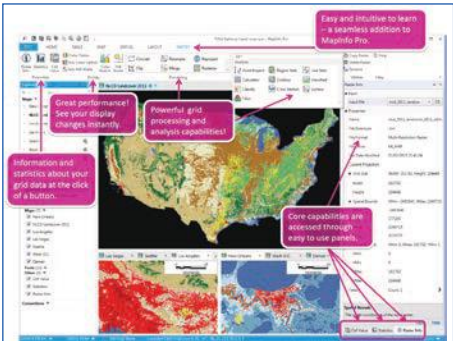
Notes

Notes

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