

SOFTWARE REVIEW

RockWorks 2006

Clint Carney – Nebraska Public Power District and Colorado School of Mines

Software Review courtesy of International Ground Water Modeling Center and Colorado School of Mines

RockWorks 2006, the latest version of subsurface visualization software from the Golden, Colorado-based RockWare Inc., provides a large array of tools useful for site characterization in many earth science disciplines. For geologists, hydrogeologists, and geophysicists involved in water-resources investigations, the software package is particularly useful for developing hydrostratigraphic models that facilitate construction of groundwater flow and transport models.

The software's Borehole Data Manager window provides a centralized database management interface through which borehole data, including lithology, stratigraphic contacts, geophysical data, geochemical measurements, fracture information, and groundwater levels, can be used to create maps, cross sections, fence diagrams, single- or multi-log plots, and three-dimensional surface and solid models. Other capabilities useful to water resources investigations are available in the RockWorks Utilities window. This interface facilitates creation of contour maps of water levels and drawdowns, as well as Piper and Stiff diagrams. Utilities include statistical analyses and control of display options.

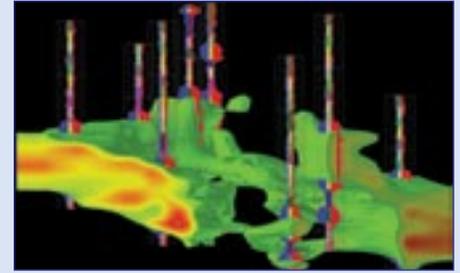
In addition to visualization of the subsurface for conceptual model development, RockWorks 2006 provides useful ways to create grids that can be used for modeling. For example, solids models created in RockWare can be exported as ASCII XYZ files, which can then be imported into various groundwater modeling interfaces for defining model units and layers. Water resource investigators will like the new Well Construction interface. This addition allows for detailed well construction information to be stored in a database format. With this data, RockWorks 2006 can be used to plot well construction diagrams alongside 2-D

and 3-D strip logs, allowing the user to identify the formation or lithology accessed by the screened intervals. Well features such as screen depth and length, casing length, and construction materials can be included in the well construction diagram.

Among several enhancements over the 2004 version, RockWorks 2006 implements the Microsoft Access database format for storage and management of borehole information. This new format increases the user's ability to query borehole information and link data from various tables within the database. Checks on data integrity within the database have been improved (for example, checks on consistent layer elevations). RockWorks does not require Access to be installed for operation of the software, however: the option to import and manipulate data in a spreadsheet format remains.

Additional enhancements include an improved tool layout for creating borehole strip logs and the capability to edit all graphics created in RockWorks. In addition to the export capabilities for grids, RockWorks 2006 now has more user-friendly options for exporting data to AutoCad and ArcGIS programs.

Review of RockWorks 06



Ease of Use:



GUI:



Output/Plotting:



Documentation:



Speed:



OVERALL RATING:



Application

subsurface visualization, borehole database management, stratigraphic modeling

Best Features

The wide array of options for presenting borehole information with superb graphics

Worst Feature

Lithology model interface window

Rating System:

Excellent



Poor



International Ground Water Modeling Center

Department of Geology and Geological Engineering

RockWorks 2006 comes with an extensive help menu and several tutorials that help introduce the new user to the software's major features. The RockWare website provides additional technical support.

The software can be purchased online at www.rockware.com.



Geomatrix

- Water Resources Engineering
- Resource Forecasting and Optimization
- System Reliability Analysis
- Integrated Watershed Management
- Risk Management

Newport Beach, CA (949) 642-0245
Scottsdale, AZ (480) 348-1244
Please visit www.geomatrix.com
for career opportunities - EOE

