

encom⁺ discover 3D version 5.0 release notes



Brand New Flexible Interface

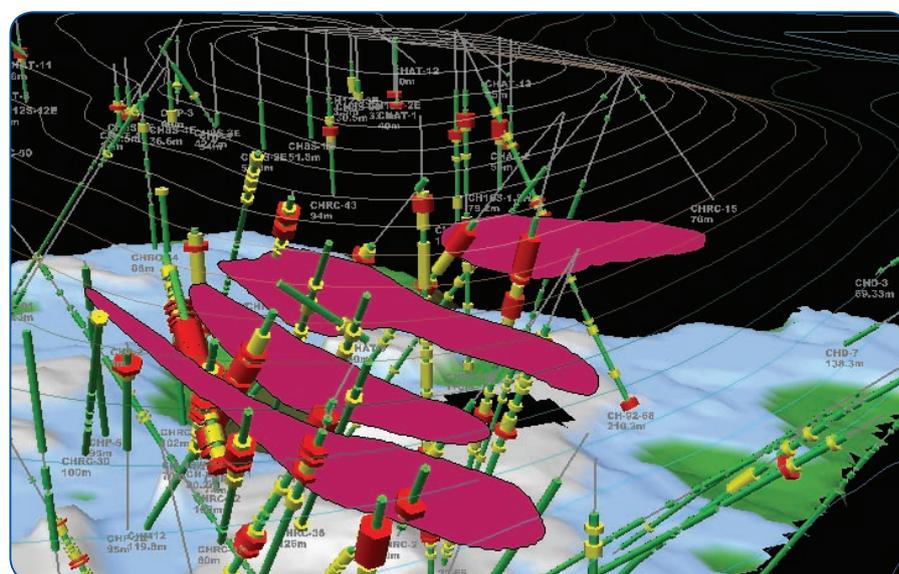
Discover 3D is now much more user friendly, thanks to significant usability enhancements:

- A new user interface, including Office 2007 application themes
- All panels in the user interface (e.g. the workspace tree, feature and data windows) can be docked to any of the 4 sides, providing an excellent way of maximizing your display area (e.g. wide screen monitors)
- Any user-customization of the interface is automatically preserved between sessions
- Layers in the workspace tree can be reordered using drag and drop operations for easier control of complex sessions
- New view direction controls
- Extensive simplification of property dialogs

What's New in Discover 3D?

The latest release of Encom Discover 3D provides an impressive range of modeling functionality, including the ability to interpolate your digitized objects into gridded surfaces, solid generation from triangulated surfaces and new advanced solid editing capabilities. Discover 3D also has a new flexible interface, including dockable panels, a reorderable workspace tree and other extensive usability improvements.

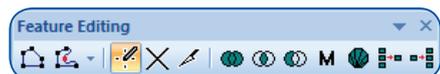
Do you need to test a precise target location? The drillhole planner can now automatically calculate a collar location using a specified target's coordinates, intercept dip and azimuth, and will take into account real-world hole deviations.



Powerful Modeling Capabilities

Discover 3D allows the geoscientist to accurately digitize, model and experiment with their interpretations directly within the 3D environment. The user is able to model and extrapolate targets, potential mineralization splays/extensions, possible fault truncations and 'what-if?' scenarios.

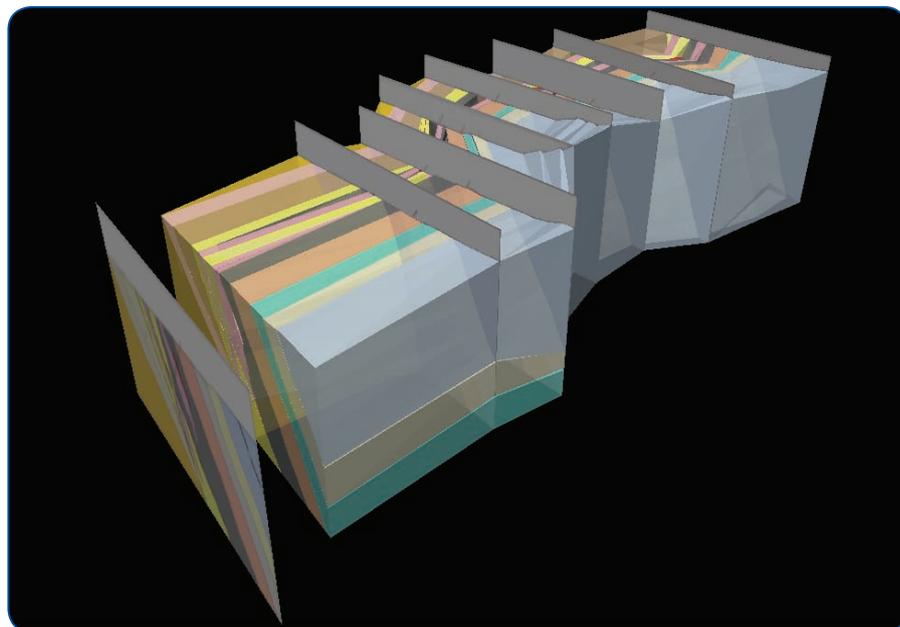
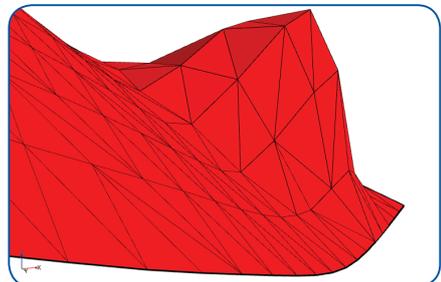
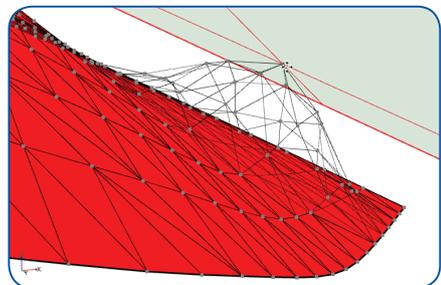
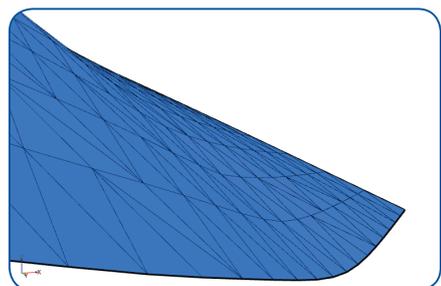
Advanced digitising and feature editing



Discover 3D 5.0 incorporates advanced feature object digitization and manipulation capabilities, allowing the user to precisely modify and edit feature polylines, polygons, open triangulated surfaces and closed polyhedral solids.

This functionality includes:

- Automatic bonding to selected data types such as drillholes
- Automatically convert polygons into triangulated (TIN) surfaces
- Experiment with or refine your wireframe models with full editing capabilities for individual vertices. These capabilities include the addition and deletion of nodes, the movement of vertices within the surface, or the elastic movement of vertices perpendicular to the cursor plane, all while preserving the surface's integrity.



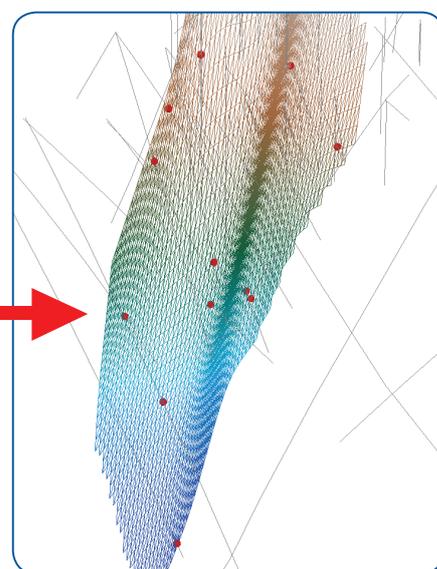
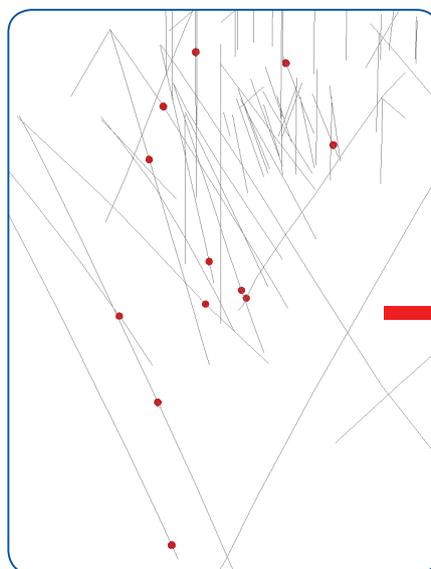
- The internal structure of a feature database can now be modified after it has been created, e.g. renaming the database, adding new fields or changing field types
- Improved snapping behavior, including targeting options for triangulated surfaces (vertices, edges or faces)
- A new clipping plane allows less cluttered digitizing in complex 3D environments
- Polylines can be split, merged and extended after creation
- Split feature surfaces by selecting a contiguous series of internal edges; generating two or more separate feature surfaces (or polygons), or remove internal regions.
- Multiple objects can be aggregated into one record, whilst still preserving each object's spatial integrity.

Smooth interpolation between 3D features to create realistic models

Discover 3D 5.0 further expands your modeling capabilities with the ability to interpolate and grid surfaces between digitized features points and polylines (e.g. digitised by snapping to drillhole intercepts).

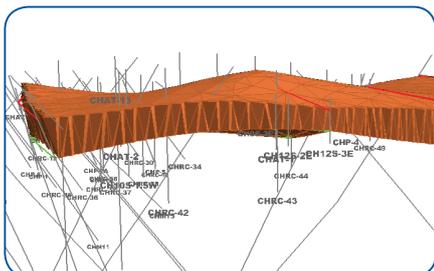
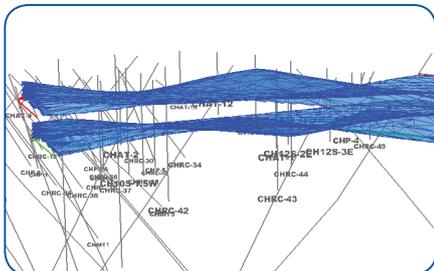
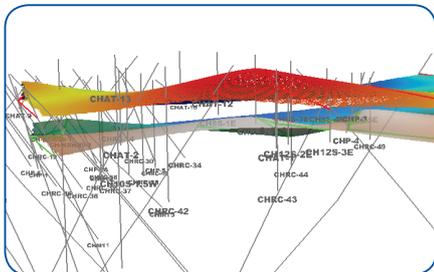
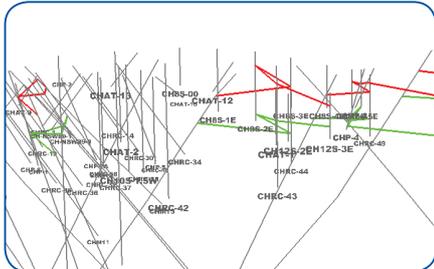
This is an excellent way to dynamically model fault planes, water table boundaries, etc, as it creates smoother and more realistic surfaces than possible with wireframing.

Gridding methods available include Inverse Distance Weighting, Minimum Curvature and Kriging.



Create solids from feature surfaces

The Solid Generator tool can now build wireframed solids (i.e. volumes) from triangulated surfaces, such as features representing the depth to the top and the bottom of a heavy mineral sand layer (created with the Surface Gridding tool).



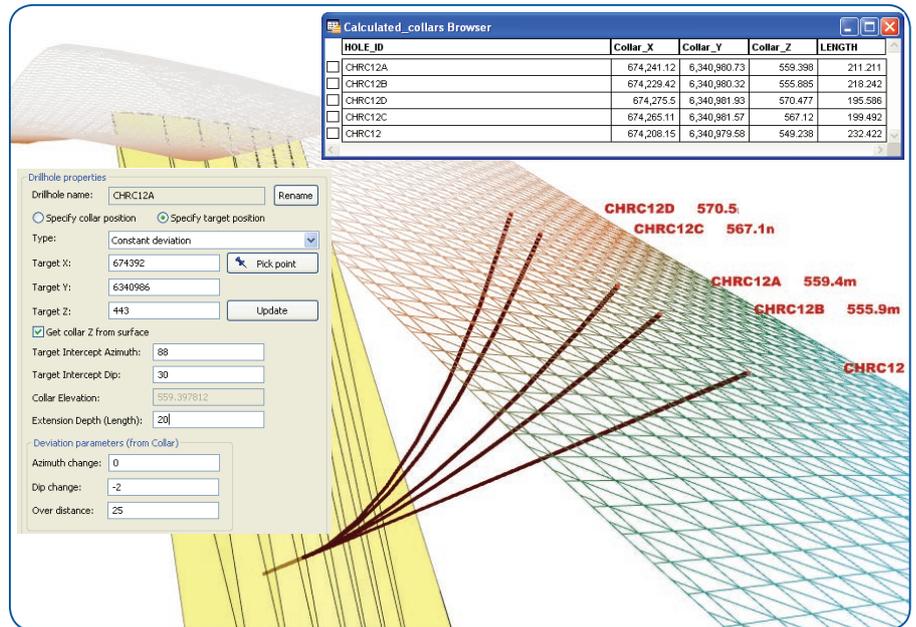
Drillhole Projects

Display polylinear cross-sections

Polylinear sections created in Discover 11 can be easily visualized in 3D as correctly geo-referenced images.

This is an excellent way to display 2D interpretations made along these non-linear sections, such as a subsurface aquifer following a meandering palaeochannel.

This functionality is ideal for the hydrological, geological and environmental engineering industries.



Dynamic drillhole targeting

Dynamically design drillholes to test specific targets at depth, such as geophysical and block model anomalies, or potential extensions to mineralization.

Specify the precise X, Y, Z coordinates of the target, and the desired intercept dip and azimuths angles of the drillhole; the drillhole planner automatically evaluates a surface collar location, using either a topographic grid or specified collar RL.

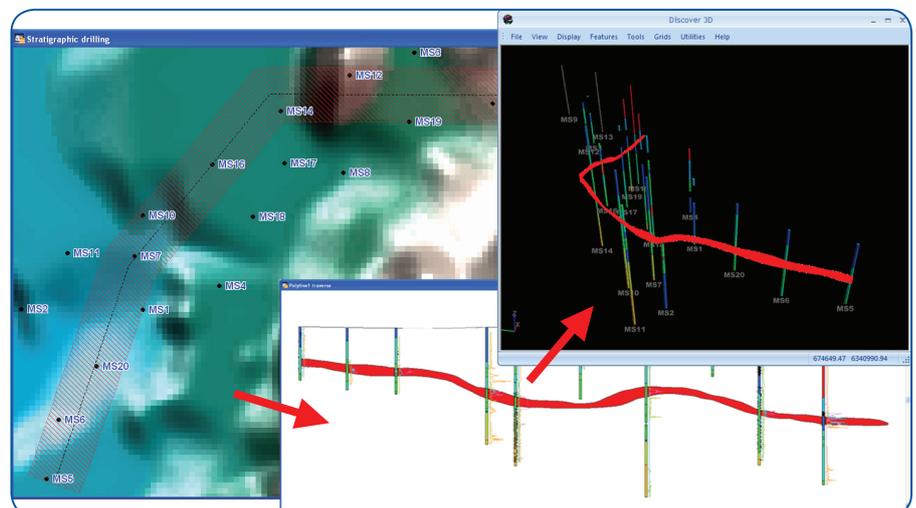
Real-world hole geometry is supported, such as constant or variably deviating azimuth and dip values (e.g. 1 degree of rise every 20m for shallowing holes).

Save and re-use downhole display settings

Your customized 3D drillhole display parameters, such as colour, pattern and thickness modulation by legends, can now be saved and re-applied as settings.

These settings can therefore be easily reapplied to an updated drillhole data set, or a different drillhole project with the same table and field names.

This ensures continuity between 3D sessions, as well as between users. Customized settings are also now preserved when an existing drillhole branch is refreshed from a project in 2D.



Voxel/Block Models

- Support for direct import of the Micromine block model format
- Improved support for multi-parameter Vulcan block models
- Voxel models can now be visualized as a slice along any user-defined plane, including inclined planes.

Additional Formats Supported

- AutoCAD extruded circle and arc DXF objects, as well as basic ellipse objects
- Direct import of Surpac .STR format as 3D vector files. These can also be imported into a feature database, and edited with Discover 3D's advanced feature editing capabilities
- Feature objects can be exported to the GOCAD TS format

System Requirements

Encom Discover 3D 5.0 requires Discover 11.0 and MapInfo Professional 8.5 to 10, with Windows XP or Vista.

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