

# encom<sup>+</sup> discover version 11.0 release notes



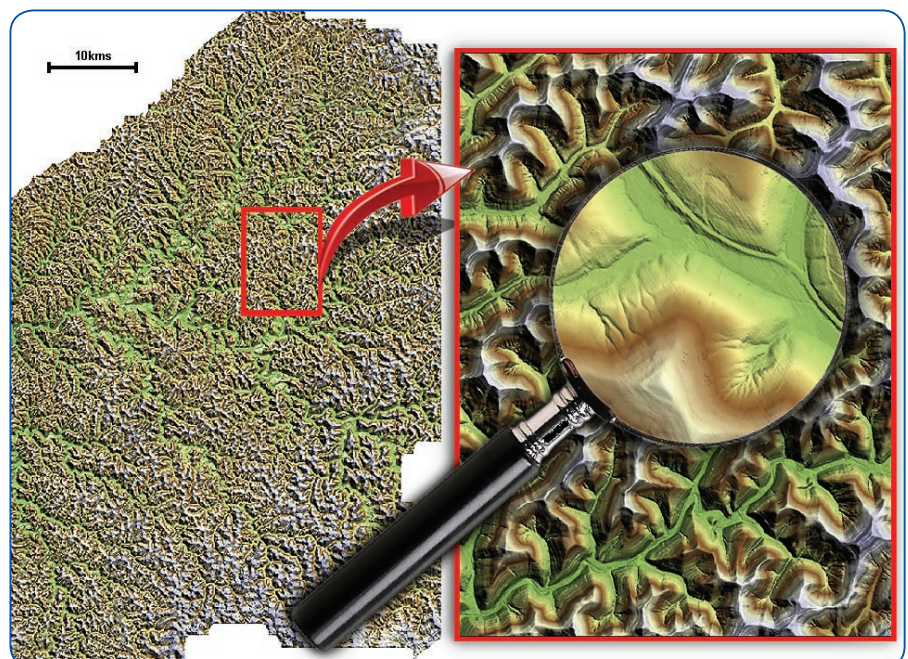
## Build Massive Topographic Grids from LIDAR Data in MapInfo Professional

Discover 11 allows the visualization of LIDAR data with existing vector, raster and grid data sets, as well as it's analysis.

- Import LIDAR LAS data as attributed points using the new **LIDAR LAS importer**, for viewing in both 2D and Discover 3D.
- Convert multiple LIDAR ASCII and LAS datasets into gridded surfaces using the new **Large Multi-file Triangulation** tool in the Surfaces module.
- Manipulate and analyze gridded LIDAR data using the Grid Utilities enhanced support for massive (1GB+) grids. Functionality such as calculating the volume between grids, or a grid's surface area, roughness, slope angles or slope directions is now supported.

## What's New in Discover 11?

- Support for MapInfo Professional 10.
- Updated support for version 4.2.0 of the acquire database model.
- Direct link to our regularly updated and searchable online Knowledge Base.
- New Command Search function (either by tool name or keywords) means no more browsing through multiple menus to find that elusive tool.



## Continued Support for Multi-Gigabyte Grids

### Enhanced Grid Utilities

Building on the very large grid (e.g. continental-scale) import and visualization support implemented previously, Discover 11 can now manipulate massive grids using its powerful Grid Utilities, such as Reproject, Clip, Overlay and Merge.

### New Large Multi-file triangulation tool

Discover can now build very large grids from multiple input files and/or massive data sets such as LIDAR data.

- Interpolate multiple input files into a single gridded surface using triangulation.
- Interpolate massive data sets such as LIDAR ASCII and LAS data, TAB point and contour files into gridded files using triangulation.

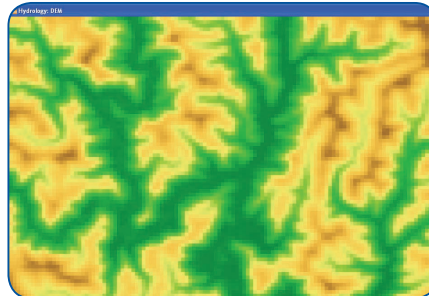
### New large grid formats supported

- USGS DEM grids
- USGS grids
- Geopak grids
- GeoTIFFs with embedded elevation

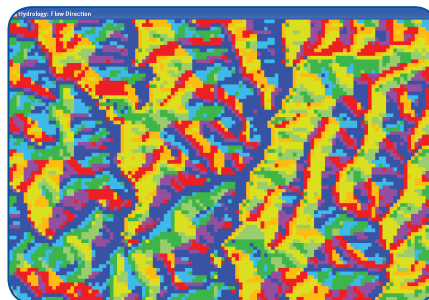
## New Hydrology Toolbox

Discover 11's new hydrology toolbox can automatically extract drainage features from gridded digital elevation surfaces. This will greatly assist disciplines such as environmental monitoring, water management, exploration and engineering. Functionality includes:

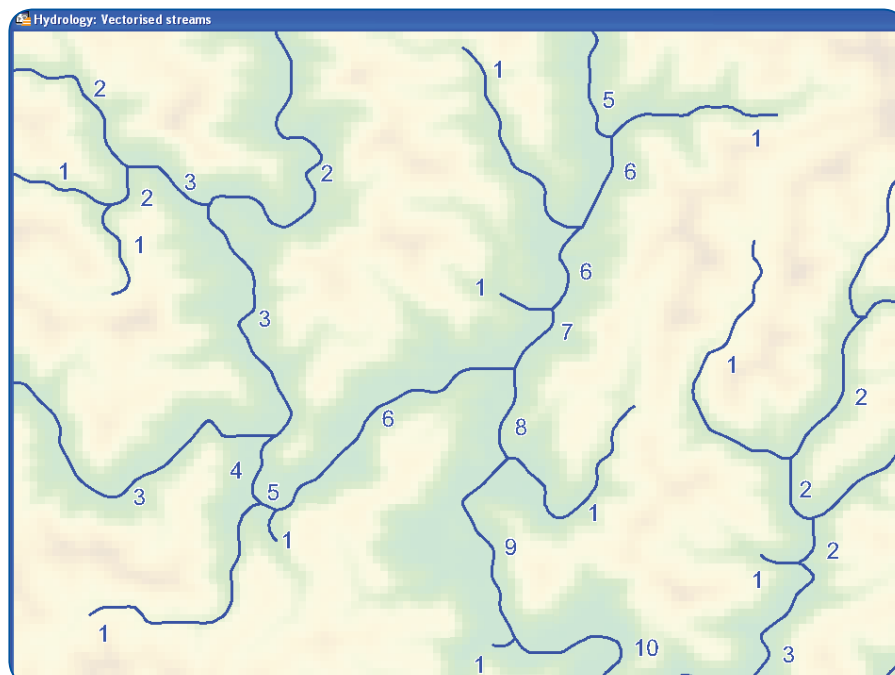
- DEM pit filling to remove unnatural pits, permitting continuous flow along drainage networks.



- Flow direction, slope, accumulation and threshold calculations.



- Stream junction extraction as points.
- Stream network extraction as polylines, with hierarchical stream order ranking.
- Watershed/catchment delineation as polygons.



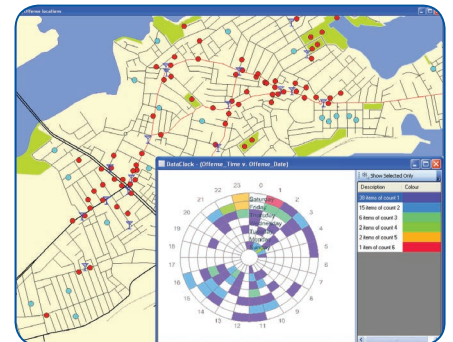
## GraphMap

### New Data clock graph type

The new Data Clock graph type is ideal for Time / Frequency or Temporal analysis, such as pollution monitoring in streams, water or salinity-level monitoring in bores, sewerage/water discharge rates and wind direction related data.

Any of the following date or time intervals can be extracted from a Date/Time field and displayed as either exterior wedges or interior circles of the clock:

- Year
- Month of Year
- Day of year
- Day of Month
- Day of Week
- Hour of Day
- AM/PM
- Minute of Hour
- Second of Minute
- Unique



### Additional enhancements made to the GraphMap tool

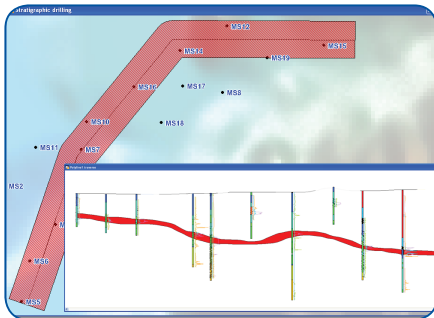
- A new visibility control, for filtering displayed points based on a grouping or filter field.
- Data Preconditioning can now convert between data field types and includes a data preview.
- Redesigned Graph Builder wizard for more interactive graph creation.
- Ability to customize the graph bin colours in a Pie chart.
- Improved setup of multiple table relationships.
- Improved Date/Time support on graphs.

## Drillholes

### New Polyline Section definition tool

Drillhole cross sections can now be defined along a non-linear path, using a selected polyline (for vertical drillholes only).

This functionality is ideal for the hydrological, geological and environmental engineering industries who often need to analyze data along non linear sections such as pipe lines, roads, tunnels and subsurface palaeochannels or aquifers.



### New Project Session management

Project Sessions allow cross-section and plan layouts and all associated components (titleblock, legends, scale bars, map windows, etc.) to be easily saved and reopened, much like a MapInfo Professional workspace. However, drillhole project sessions also preserve the parent drillhole project, reopening all the required data and settings when the session is opened.

This is a very powerful way of handling projects when saving multiple sections' layout windows for hardcopy output, or regularly opening a number of cross-section map windows.

### New Display Downhole Data tool

A completely redesigned tool makes creating and finessing the downhole data displays on your sections interactive and painless. New features include:

- An intuitive interface that provides clear visualization and easy modification of display settings, including the adjustment of the individual display type offsets with respect to each other.
- Downhole display settings are now easily shared between users. These can be project specific, and are automatically stored with each section for hassle-free reuse.
- The width of linegraphs and histograms can now be specified (rather than a scale) in millimetres, allowing precise sizing control to prevent overlaps.

### Other changes

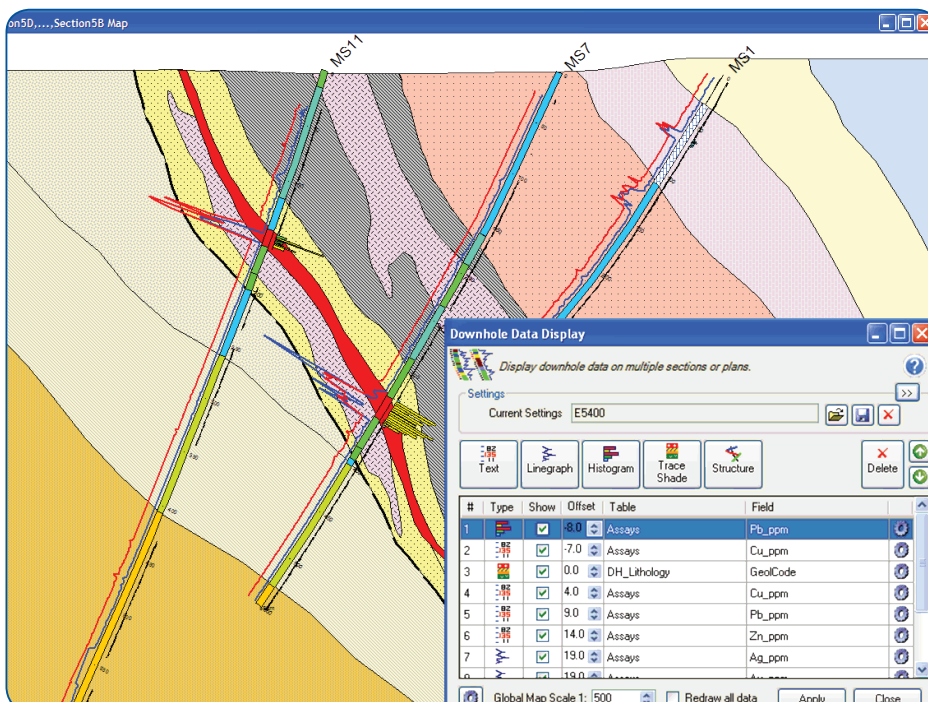
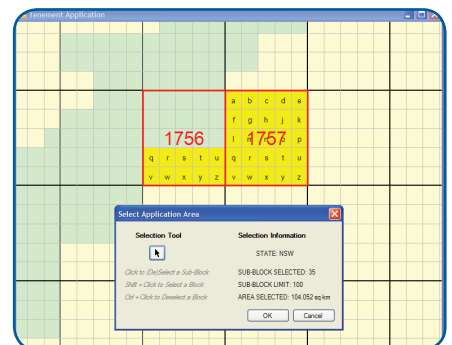
Additional interface and performance improvements have been made to the following tools:

- Project Manager
- Section Manager
- Draw Section Grid
- Add Section Layout

## New Tenement Module

The Discover Tenement module has been completely redesigned to provide an interactive interface for creating new applications, searching through existing tenement data and for downloading regular tenement updates:

- Download regularly-updated Australian mineral tenement data via a web-based subscription service.
- Straightforward tenement querying by date, licence type and holder information.
- New application interface with interactive state and datum selection.
- Create polygonised block and sub-block reference grids.
- Create new or modify existing applications by selecting sub-blocks manually or interactively, including sub-block counter, limit and area checks.
- Tenement application reports automatically created for entry into standard statutory application forms.



## New Import Support

- DataSight database importer: Import data directly from the DataSight environmental data management platform.
- ioGAS Importer.
- LIDAR LAS importer: Import LIDAR data as points. LAS data can now also be gridded using the new **Large Multi-file Triangulation** tool.

## Raster Imagery Support

### Support added for large raster image formats

Discover can now automatically open and register the following large image formats:

- ER Mapper's ECW/ECWP.
- JPEG2000/JP2K.

### New Create Registered Raster tool

- Now capture a mapper window as an ECW image.

## Documentation

- A complete rewrite of the user documentation provides more useful information that is much easier to find.
- The new task-oriented User Guide includes extensive "how-to" topics and direct cross-references to the more detailed information in the Reference Manual.

## Other Improvements

Menu auto-start options in the Configuration dialog now automatically open menus into the current session.

## System Requirements

Encom Discover 11 requires MapInfo Professional 8.5 to 10, with Windows XP or Vista.

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