

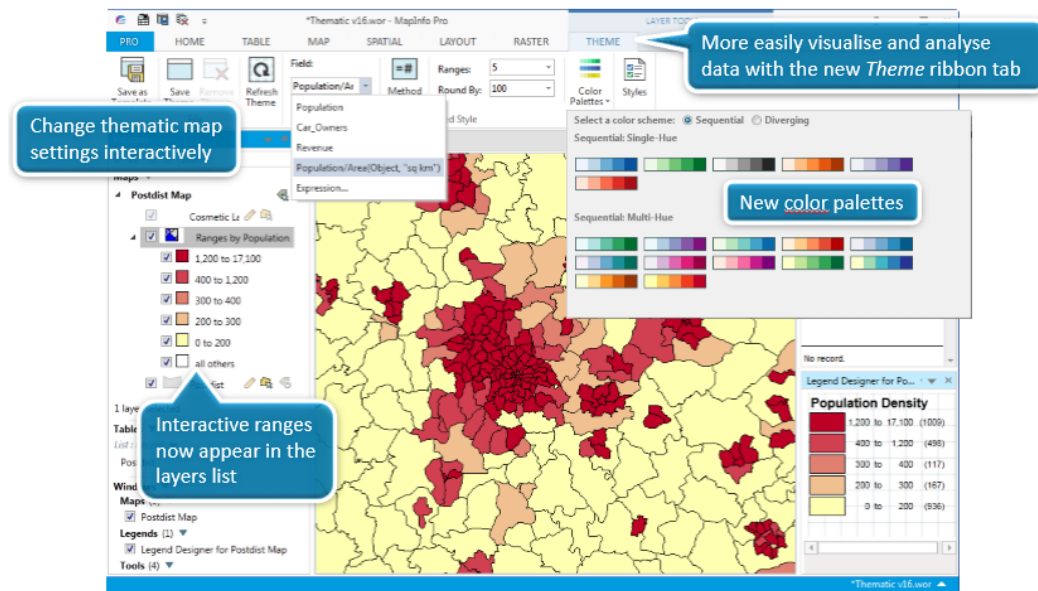
WHAT'S NEW IN MAPINFO DISCOVER 2016 64-BIT

The MapInfo Discover 2016 64-bit Bundle installs and licenses the following applications:

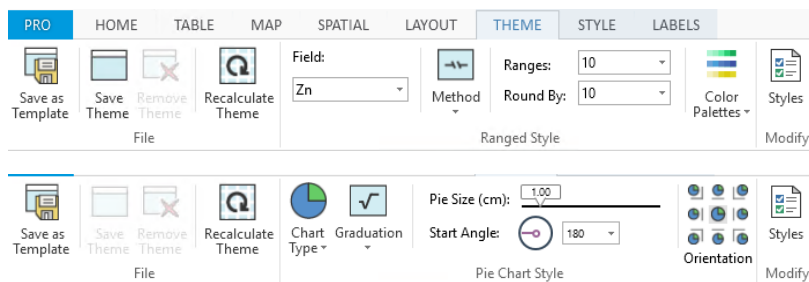
- MapInfo Pro Advanced 16.0 64-bit (includes MapInfo Pro Raster)
- MapInfo Premium Services
- MapInfo Discover 2016
- MapInfo Discover 3D 2016 (optional license option)

MapInfo Pro 16.0

New interactive thematic mapping

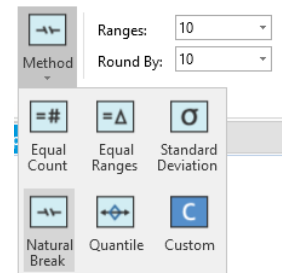


Massive time savings: refine the thematic display interactively without having to rerun the entire thematic wizard each time.



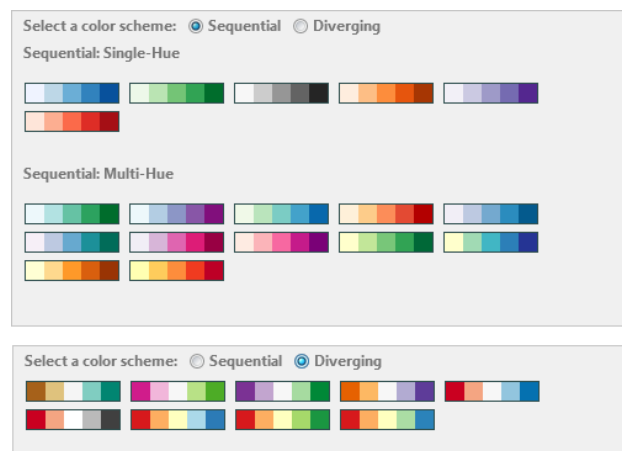
A new **THEME** tab displays appropriate content for the type of thematic map, providing interactive adjustment/refinement controls for:

- Source field / column
- Range calculation method
- Rounding
- Colour Palette
- Styles



New **Colour Brewer** thematic templates

- Single click to apply a template to your map.
- Designed for clarity and accessibility.
- For more info: <http://colorbrewer2.org/>



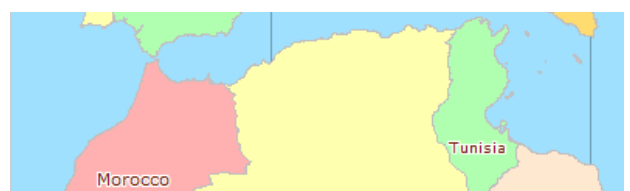
Labelling

Labelling partial regions: new behaviour provides better control when **Auto position label** option is on

ON



OFF



Improved Layout tab

- Added text support options for:
 - Underline
 - ALL CAPITALS
 - Expanded text
 - **Background**
- The **Output** button now 'remembers' your last choice
- The **Select** tool is always available on the **Layout** tab

Layout Designer

- While editing text boxes in Layout Designer there is now a **Copy/paste** option when you right-click.
- Cancel the selection of a Layout Designer tool by pressing the Esc key (restores cursor to the **Select** tool)
- Layout Designer Grid and Snap settings are now saved in workspaces.

Gridlines improvements

- Longitude/Latitude label formats
- New label placement options (specific map edges)

Undo command (coming in MapInfo Pro 16.0.1 patch)

Handles a number of common use cases

- Undo moving and resizing most objects
- Undo deleting many objects (exceptions are Map and Scale bar frames)

WFS and WMTS support

- Updated Web Feature Service (WFS) v2.0 support
- New Web Map Tile Service (WMTS) support

MapInfo Pro Raster 16.0

Create Raster (gridding / interpolation)

- New Natural Neighbour interpolation method
- New Nearest Neighbour interpolation method
- New Create Raster Multi-file: supports multi-file gridding (such as LIDAR ASPERS LAS data), including the content of entire folders & sub-folders



Create Raster Enhancements:

- **Orientated Search Ellipses** option added to all methods with a search radius. This is particularly useful for geochemical interpolation of surface sampling.
- Search parameter units can now use Distances (previously only Cells), with a range of distance units available (meters, feet, yards, miles, etc...).
- **Data conditioning** for input fields, including:
 - Specifying invalid values and ranges,
 - Converting nulls to a background value, and
 - Capping data to minimum and/or maximum values.
- **Output raster geometry:**
 - The bounds of the output raster can be set
 - Output raster can now have a different projection assigned during creation
- **Clipping (Near & Near/Far):** The Clipping control provides options to limit the extents of the interpolated raster, so it more closely approximates the distribution of the input data.

Operations

- New Volume calculations both between rasters, as well as above/below a plane of constant value.
- Interactive Line of Sight tool
- Interactive Cross Sections tool



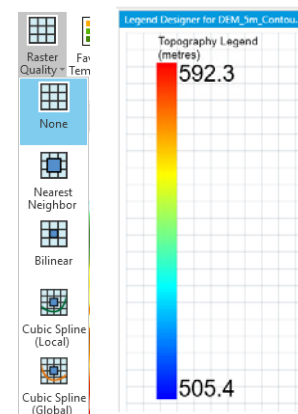
- New **Calculator** capabilities:
 - New image manipulation functions including extracting hue, saturation and intensity from HSI imagery files, and extracting red, green, blue and alpha band values from RGB and RGBA imagery files.
 - Static Spatial Functions & Dynamic Spatial Functions
 - Output extents controls, band type conversion & output null handling
- New **Focal Filter** improves image appearance by reducing noise.
- New Classified Filter
- Merge tool:
 - The primary raster can now be selected from the list of open rasters, and raster order can be controlled via drag and drop.
 - Merge files with different band data types into a single file.
 - Supports image palette data
 - New count mode
- New **Export Raster to Tab** creates a point table with each point representing either the center or corner of each raster cell.

Colour & Display

- Create and apply custom grid display templates. This can save a lot of time by applying complex pre-saved templates.



- Create **Raster Legends** (MAP > Add to Map) that update/refresh dynamically when a raster's colour display is changed.
- Underviews / Raster Quality: A range of resampling techniques (Nearest Neighbour, Bilinear & Cubic Spline) allow the enhancement of image quality by reducing distortion.
- Advanced Color UI - new option to Remap the breaks



Info

- **Cell Value** information can now be alternatively displayed more subtly in the Status Bar (allowing more real estate for the map window)
- Changes on Cell value tool Window
- Improvements to Statistics Control

General

Additional raster formats (read-only):

- GDAL formats:
- BSB NOAA Nautical Chart (.kap)
- Grid eXchange File (.gxf)
- ASCII Gridded XYZ (.xyz)
- JPEG2000 (.jp2)
- ECW (by default rendering is off. But processing operations supported)
- GDAL Virtual Raster Dataset (.vrt)

Performance improvements

- Multi- banded operations should be faster for almost all the operations
- Compression of Multi-banded raster is faster now.
- Gridding algorithms migrated to new engine should improve performance.
- Interpolator has been improved to make operations faster (Resample, reproject, calculator)
- Export to raster operation is improved for performance.
- Point inspection is improved for performance and memory usage.
- Calculator operation performance has improved.
- Export to ASCII performance improvement

Enhancements to Preferences:

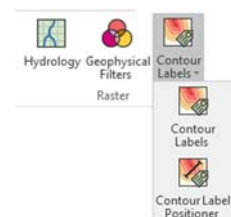
- Display>Legend Mapping
- Display>Display Resampling Method
- File Paths > Temp file path for Gridding
- File Paths > Reset Button for temp file path
- Cache size for gridding
- Windows > Remember Task Window State

MapInfo Discover 2016

New Raster functionality

A new **Raster group** (on the ANALYSIS ribbon) incorporates:

- Geophysical (FFT) filters
 - Band Pass
 - Continuation
 - High Pass
 - Low Pass
 - TMI Reduction to the Equator
 - TMI Reduction to the Pole
 - TMI Reduction to the Pole (low latitude)
 - Vertical Derivate
 - Fill holes
- Contour labelling (also under Discover > Output > Labels)
- Contour label positioner (also under Discover > Output > Labels)
- Includes the Hydrology module



Multi-Resolution Raster (MRR) support

MRR support now added for the following:

- Drillhole projects
- Hydrology
- Datamine CAE export
- Leapfrog Geo Export
- Discover 3D > Map Window
- Discover 3D > Vectors
- Discover 3D > Surfaces*
- Discover 3D > Drape Image
- Discover 3D > Extrusion Wizard**

These tools all also now support multi-band MRR rasters, either via:

- A pop-up field-band selector within the tool, or
- Using the band set under RASTER>[Display]>Band

Multiband MRR exceptions:

* Discover 3D > Surfaces uses by default the first band in a multi-band MRR for initial 3D display. To change, in 3D open the Surface Properties dialog, and use the Field Selector in the 3D Surface layer to change the Band.

** Discover 3D > Extrusion Wizard can only utilize the first band in a multi-band MRR.

Drillhole Geopackage

Our drillhole module now implements MapInfo Pro 16.0's new Geopackage as the core database, natively storing your drillhole data as a complete 3D geometry dataset.

GeoPackage is an open, standards-based, platform-independent, portable, self-describing, compact format for transferring geospatial information.

Some benefits:

- Larger data set support. SQL Server CE has a 2GB limit, GeoPackage can be as large as 100TB.
- NativeX Tab file support. Data in NativeX TAB file can be saved into GeoPackage.
- For certain datasets (e.g. lots of empty field values), significant space saving and faster processing.

This new drillhole geopackage database provides the core engine for some exciting development potential and optimizations over coming releases.

GPS Connect for 64-bit



- Connect to both internal / onboard GPS's , as well as external GPS devices (via USB or Bluetooth)
- Supports NMEA 0183 version 4.0 protocol
- Supports three global satellite constellations on GNSS receivers including GPS (USA), GLONASS (Russian) and BeiDou (Chinese), maximizing location precision.
- A detailed satellite viewer and information screen to monitor the status and quality of the gps fix.
- Display the current position in a MapInfo map window, with options for auto-centering, symbol style, etc.
- Accurately capture your position within MapInfo Discover as either point, polyline or polygon objects. Ideal for outlining outcrop, plotting a new dirt track, or capturing soil samples and other locations of interest.

