



Highlights of TNTmips 2014 New Features

For all of the over 400 new features in TNTmips 2014 see:
<http://www.microimages.com/documentation/FeatureSummaries/2014/whatsnew2014.htm>

For the Technical Guides available for TNTmips 2014 see:
<http://www.microimages.com/documentation/FeatureSummaries/2014/2014.htm>

Highlight Features

- Redesigned and streamlined Mask Editor, Geospatial Catalog Manager, Style Assignment dialog, Layout Settings dialog, and Print dialog.
- Import, create, and edit EPANET pipe network vector objects and run EPANET hydraulic simulations within TNTmips.
- Vary the transparency of any raster or geometric layer in a view using a slider in the View window sidebar.
- Use global MapQuest map and image tilesets in addition to Bing Maps as public reference layers in any View.
- Use active or selected elements for measurement, sketches, regions, and profile generation.
- View histograms, apply contrast, and match contrast for color-composite images.
- Support for direct use, import, and export of many new file formats including ESRI File Geodatabase and GeoRSS.
- Create Open Layers geomashups using geometric web tilesets (SVG and KML) with legends, custom sidebars, and drawing/measurement tools.


System

 [link to Technical Guide](#)

- Run TNT products in Mac OSX 10.9 Mavericks.
- Access database operations from the new Database menu on the TNTmips menu bar.
- Access object conversion operations from Convert submenus on the Image, Geometric, and Database menus.
- Search both local geocatalogs and the MicroImages online webmap catalog when selecting objects for display or other operations.
- If a main control window in a TNT process (or a modal dialog such as a prompt or message window awaiting input) is hidden behind other windows, pressing ctrl-w makes it active and brings it to the front.
- Pop-up windows that are automatically positioned relative to their parent (such as layer and group settings) are forced to open entirely on-screen if the parent is near the edge.
- Open additional 2D views from the layer manager in any process.

Spatial Display






General

- Use global MapQuest map and image tilesets in addition to Bing Maps as public reference layers in any View. 
- Redesigned Style Assignment window with integrated style editors for geometric element display.
- Automatic style assignment for styles with same name as the corresponding element attribute.
- Open an atlas in TNTmips Display and TNTview from its ATL file.
- Choose the tool to be initially active in new views using the View Options window.
- Zoomed-in views retain their location and scale when new layers with larger extents are added.





- The active layer is used if possible when zooming to maximum detail; if no part of the applicable layer is visible after zooming, the view pans automatically to show it.
- The last-used design scale is set as default design scale when a new group or layout is created.


Display Manager and View Sidebar Layer Controls

- Vary the transparency of any raster or geometric layer in a view using slider in the View window sidebar. 
- Select a range of layers to raise/lower, remove, or exclude from group extents (shift-right-click on a layer selects all layers from the active layer to the layer you click on and opens a menu of actions to apply to all of the layers). 
- Toggle show/hide for a range of layers (shift-left-click on a visibility checkbox toggles visibility for all layers from the active layer to the one you click on). 
- Customize the Display Manager menus and icon bar using Options / Hidden Features.
- Use layer right mouse-button menu to copy display settings to other layers of the same type in view, with option to save.
- Database table lists are sorted alphabetically by table name.
- Use geometric element right mouse-button menu to show hidden tables.
- Use group right mouse-button menu to add layers, remove all hidden layers, or disable/enable DataTips or element marking for all layers in group. 
- Save groups and layouts from their right mouse-button menu. 

Marking Geometric Elements

- Use Mark by Query icon button on the View window to open the Query Builder.
- Designate which database tables are opened by default when geometric elements are marked. 
- Optionally apply query only to currently marked or unmarked elements.
- Mark all elements adjoining currently marked elements. 
- Mark polygons with centroid inside or outside of a region.

GeoToolbox and Regions

- Use a set of marked geometric elements for measurement, generating profiles, creating a region, or adding to a sketch. 
- Choose to automatically open the GeoToolbox after creating a new region.
- Choose the coordinate reference system to use when saving a region.

Raster Histograms

- View superimposed component histograms for color-composite rasters or RGB separates display layers with choice of which components to show.
- Optionally show mean, median, standard deviation, and/or count on histogram graphic panel; view full set of statistics on Statistics tabbed panel.
- Optionally show cumulative histogram.
- View raster object properties on Properties tabbed panel.
- Option to save snapshot of histogram graphic to PNG, TIFF, JPEG, or JPEG2000.

Layouts and Map Grids

- Set page size, page orientation, margins, and layout scale in Layout Settings window.
- Page size settings are automatically saved with the page layout.
- Replace missing layers when loading a layout.
- In a tiled layout, specify the number of rows and columns and the order of groups in the Layout Settings window.



- Add provided compass graphics using the Display Manager's Add menu.
- Choose which sides and corners of map have map grid labels.
- Set vertical grid labels to read downward/upward or have tops inward/outward from sides of map.

Printing

- Open Print dialog from an icon button on the Display Manager toolbar.
- Redesigned Print and Print Setup windows with streamlined main settings on one panel.
- Select from predefined page sizes when printing to TIFF.
- Use CMYK color model when printing to TIFF.




HyperIndex Navigator / Linker

- View window status line shows link description when the mouse cursor is over the link.
- Change the order of the items in the HyperIndex list.
- Create links to saved groups.
- Set up links to execute encrypted as well as unencrypted SML scripts.
- Set the description for a link by attribute from a database field.

Enhanced Support for EPANET Pipe Networks

- Create new vector objects in the Editor with full EPANET database schema and CartoScript styling for nodes and lines.
- Set up EPANET database schema for existing vector objects using new process (Database / Setup Schema).
- Improved EPANET schema creates optimal relationships between attributes in different tables.
- Run EPANET hydraulic simulations from vector objects in TNTmips using new process (Geometric / Compute / EPANET Simulation).
- Import and Export EPANET INP file.

Database Tables / Operations

- Set up an EPANET or S57 database schema for an existing vector object using a new process (Database / Setup Schema).
- Table view title bars now list the table name first so it remains visible if the window is narrow.
- Use Table Properties window to set a table as hidden. 
- Set default values for numeric fields in new records using field constraints. 
- Conditionally populate fields from a related table or using specific values. 

Editor






- Use Marked Elements icon menu to copy or cut marked elements to clipboard.
- When adding elements, simply select a record in an associated database table view to be assigned as the default record for each new element. 
- Set up Database Prompts for node tables in addition to other element types. 
- When creating a new vector object, set option to automatically convert nodes to points to enable assigning node attributes.

Image and Raster Operations

General

- Apply contrast and match contrast using color-composite rasters.  
- Match contrast of multiple images to the same reference image. 
- Compute Length-Slope factor raster in Watershed Analysis for Universal Soil Loss Equation.




Mask Editor

- Process window redesigned with more compact and intuitive layout.
- Fast loading, display, and processing even for very large rasters.
- Create mask or null mask and save to multiple matching rasters such as image bands.
- New Mark from Edge tool selects all cells of specified value(s) contiguous with edge of raster.
- Use numeric filter settings to restrict selection to a specified numeric range when marking by drawing or by region.


Geospatial Catalog Manager

- Catalog Manager completely redesigned with more intuitive layout.
- Folders presented in expandable/collapsible tree structure for ease in navigation and selection.
- Building or updating a catalog is done automatically in background using TNT Job Processing.

Import / Export

- Display and use ESRI File Geodatabase 10.0 in its native form, import as vector or CAD object, and export TNT geometric objects to File Geodatabase. 
- Display and use a number of additional geometric file formats in their native form or import to vector or CAD objects: ArcInfo E00, Coverage, and Generate; GML; GPX; CSV; S57; GeoRSS/GeoXML; GeoJSON; Atlas BNA; and others.
- Import of GPX files supports polyline and polygon elements, database records, and Garmin's GPX extension.
- Export TNT geometric objects to GeoRSS, GeoJSON, GMT, and Atlas BNA.
- Import raster objects from or export to Arc/Info floating point binary format.

Tilesets

- When export geometric tilesets, specify source for info window name and description from database fields or from DataTip.
- Choose from range of geometric tile sizes that are automatically accommodated in geomashups.
- Mosaic to and subset (extract from) terrain tilesets.
- Convert image tileset subsets to different target (e.g., Google Maps to Google Earth).
- Save image tileset subsets directly to Android device for viewing in the Google Earth app. 

Assemble Geomashup

General

- Set option to automatically close any info window when a new one opens.
- Set option for geometric tilesets for element click to go to a URL to open a web page in the browser instead of the info window.
- Improved layout control and resize behavior for custom sidebars.

Expanded Support for Open Layers

- Support for geometric tilesets (SVG, SVGZ, KML) and WMS layers.
- Add legends for geometric tilesets with controls to turn individual classes on/off.
- Use checkbox and radiogroup controls separately or in combination.
- Add custom sidebar content.
- Set info window sizes for both KML and SVG geometric tilesets.

Geospatial Scripting

- Encrypt SML script files in addition to script objects in Project Files.
- Encrypt scripts using Encrypt To menu options separate from Save / Save As.
- Encryption procedure automatically prompts for a description to be shown when the script is opened in the SML Editor.

