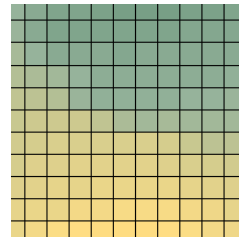# U.S. 10-Meter Elevation Data (NED10)

NED10 (ft)

NED30 (ft)

SRTM90 (m)

The illustrations to the right show equivalent areas of the 10-meter NED, 30-meter NED, and global 90-meter SRTM elevation datasets (black lines outline raster cells).
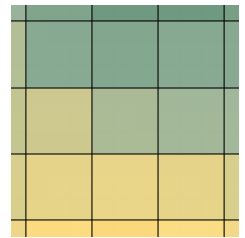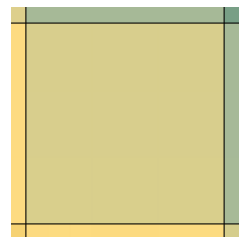
The U.S. 10-Meter Elevation Data (NED10) distributed by MicroImages provides seamless elevation data for the conterminous United States from the National Elevation Dataset (NED) with a cell-size of 0.3 arc-second (approximately 10 meters). The NED has been produced by the U.S. Geological Survey by merging the best quality elevation data available across the United States. MicroImages acquired the data in 1 degree by 3 degree blocks, converted the elevation values from floating-point meters to integer feet, mosaicked the blocks, and created a TNT tileset of linked JP2 files. The tileset structure is optimized to allow very fast display of any area in this dataset in the TNT products at any viewing scale. In addition, the small individual JP2 tile files (2048 by 2048 cells) can be used in any other software program that supports the JP2 format. Lossless JPEG2000 compression has been applied to preserve the fidelity of the original data while reducing file sizes. The NED10 elevation tileset is in geographic (latitude-longitude) coordinates referenced to the NAD83 horizontal datum.

The NED10 tileset can be used in many ways in the TNT products:

- use as a terrain surface for stereo views of 1-m orthoimagery and other geodata
- use as a terrain surface for 3D perspective views of imagery and other geodata
- use in the Topographic Properties process to derive slope, aspect, and curvature data and shaded relief images
- use in the Watershed process to delineate watershed boundaries, drainage networks, and their many associated attributes, along with other derived geomorphic/hydrologic characteristics

- use for Viewshed Analysis
- display with one of many standard color palettes (or design your own custom color palette) as backdrop for vector overlays
- overlay with partially-transparent shading raster to create a color shaded relief display
- extract portions of the raster data as needed for local projects

Technical Specifications

Size: 17.7 GB
Compression: Lossless JPEG 2000
Format: TNT Tileset using 2048 x 2048 GeoJP2 files
Data Type: 16-bit signed integer
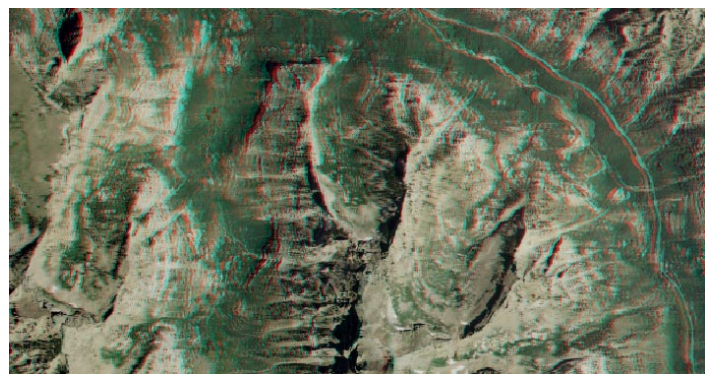*CRS:* Geographic / North American Datum 1983 (NAD83)
Elevation Units: Feet
Extents: N 50° 00' 00", W 125° 00' 01" (Upper Left),
   N 24° 31' 23", W 66° 00' 00" (Lower Right)
Number of Cells: 275,151 Lines x 637,202 Columns
Cell Size: 0.3 arc-second (nominally 10 m)

Anaglyph stereo display using a TNT color image tileset of 1-meter natural color orthoimagery of all of Nevada as an image overlay and the US NED10 tileset as the terrain layer. Display is zoomed in to show detailed features in a small area.