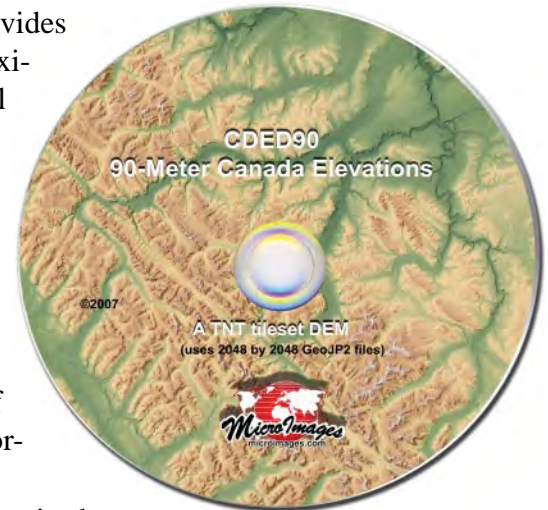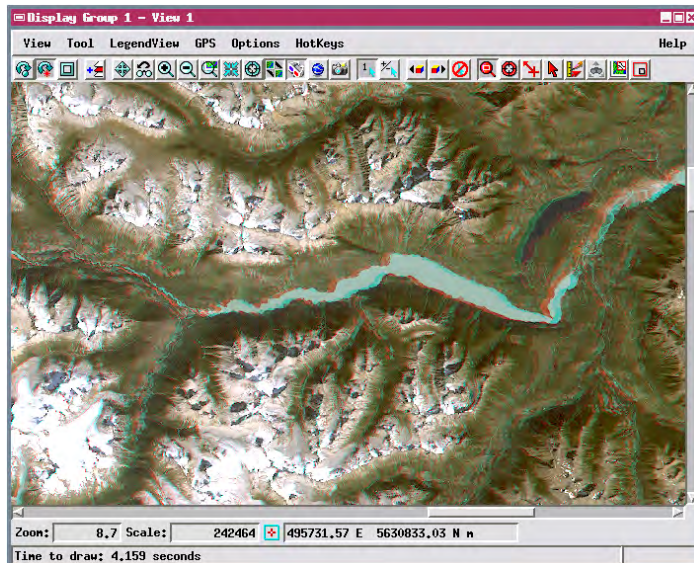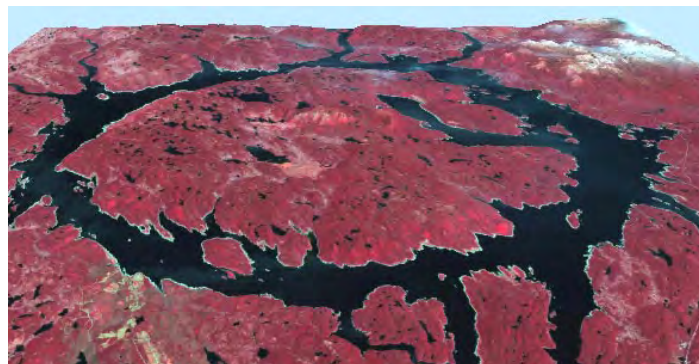# Canada 90-Meter Elevation Data (CDED90)

The 90-Meter Canada Elevations CD distributed by MicroImages provides elevation data for all of Canada with a cell size of 3 arc-seconds (approximately 90 meters in the north-south direction) from the Canadian Digital Elevation Data (CDED) series. MicroImages acquired the data in blocks, mosaicked the blocks to a common cell size (the original data has lower east-west resolution at higher latitudes) and created a TNT tileset of linked JP2 files. The tileset structure is optimized to allow very rapid display of the entire 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 was applied to preserve the fidelity of the original data. Elevations are in integer meters, with geographic coordinates referenced to the NAD83 horizontal datum.

The elevation dataset provided on this DVD can be used in many ways in the TNT products:

- use as a terrain surface for stereo views of imagery 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

Anaglyph stereo display of Landsat 7 scene (30-meter cell size) of Coast Range in British Columbia using the CDED90 TNT tileset directly as the terrain layer.

3D Perspective view of Manicougan Crater, Quebec; Landsat 7 color-infrared image draped on terrain extract from CDED90. This 200 million year old meteorite crater is one of the oldest and largest preserved impact structures. The reservoir (black) filling the eroded inner ring of the crater is 70 km in diameter.

Technical Specifications

Size: 0.58 GB
Compression: Lossless JPEG 2000
Format: TNT Tileset using 2048x2048 GeoJP2 files
Data Type: 16-bit signed integer
CRS: Geographic / North American Datum 1983 (NAD83)
Elevation Units: Meters
Extents: N 84° 00' 00", W 142° 00' 00" (Upper Left),
    N 41° 00' 00", W 52° 00' 00" (Lower Right)
Number of Cells: 108,002 Lines x 51,601 Columns
Cell Size: 3 arc-seconds (nominally 90 meters)