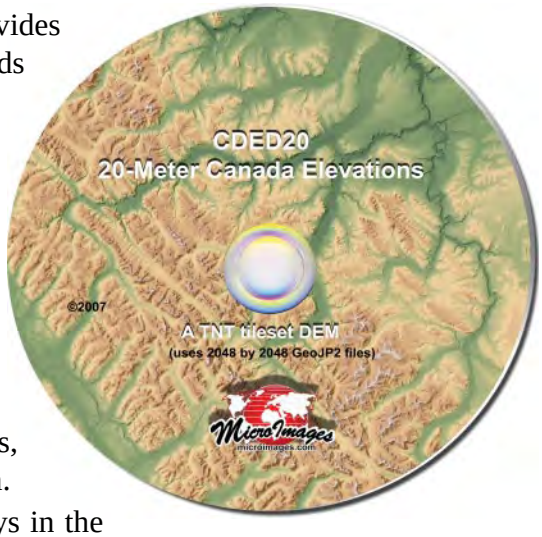
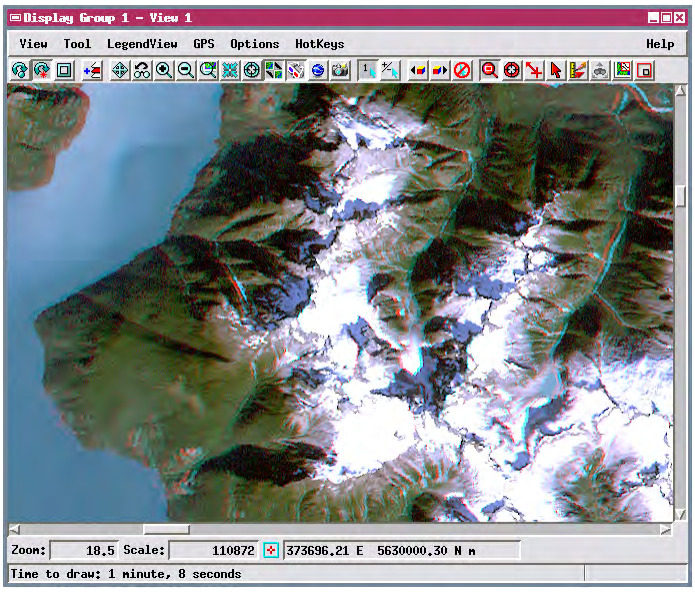
Canada 20-Meter Elevation Data (CDED20)



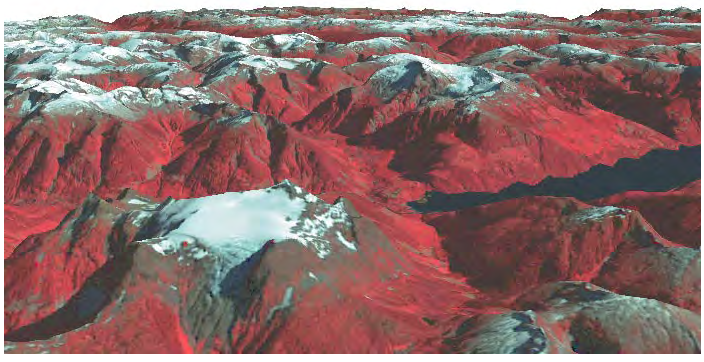
The 20-Meter Canada Elevations DVD distributed by MicroImages provides elevation data for nearly all of Canada with a cell size of 0.75 arc-seconds (approximately 23 meters in the north-south direction) from the Canadian Digital Elevation Data (CDED) series. MicroImages acquired the data in blocks, mosaicked 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 GeoJP2 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 CDED20 TNT tileset directly as the terrain layer.



3D Perspective view of Coast Range in British Columbia. Pan-sharpened Landsat 7 color-infrared image (15-meter cell size) draped on terrain extract from CDED20.

Technical Specifications

Size: 3.98 GB
Compression: Lossless JPEG 2000
Format: TNT Tileset using 2048 x 2048-cell GeoJP2 files
Data Type: 16-bit signed integer
CRS: Geographic / North American Datum 1983 (NAD83)
Elevation Units: Meters
Extents: N 83° 00' 00", W 142° 00' 00" (Upper Left),
N 41° 29' 59", W 52° 29' 59" (Lower Right)
Number of Cells: 199,204 Lines x 429,609 Columns
Cell Size: 0.75 arc-seconds (nominally 23 meters)