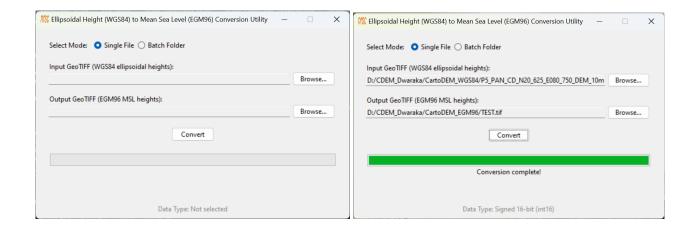
## Ellipsoidal Height (WGS84) to Mean Sea Level (EGM96) Conversion Utility



## **About the Utility**

The Ellipsoidal Height (WGS84) to Mean Sea Level (EGM96) Conversion Utility is a specialized tool designed to transform Digital Elevation Model (DEM) data referenced to the WGS84 ellipsoid into heights referenced to Mean Sea Level (MSL), specifically using the EGM96 geoid model. This conversion is essential for applications requiring elevation data that aligns with the true physical surface of the Earth, as most mapping, engineering, and geoscience applications use MSL as the vertical reference.

The utility is tailored for processing **Cartosat-1 DEM tiles**, but it can be applied to any compatible DEM data provided in **GeoTIFF format** with a **signed 16-bit data type**. It applies geoid undulation corrections based on the EGM96 geoid, ensuring that the resulting heights accurately represent MSL elevations.

To accommodate different user requirements, the utility supports two operational modes:

- **Single File Mode:** Allows the user to convert individual DEM files by selecting an input and an output file.
- Batch Mode: Enables automatic processing of multiple files within a folder, converting all GeoTIFF DEM files in the input directory and saving the results in the specified output directory.