

# ISO Geodetic Registry

<i>Item class</i>	OperationMethod
<i>Name</i>	<b>Geographic3D to Gravity Related Height (NZgeoid)</b>
<i>Item status</i>	VALID
<i>Identifier</i>	92
<i>Data source</i>	ISO Geodetic Registry
<i>Remarks</i>	<p>This transformation involves the application of a geoid-ellipsoid separation value interpolated from a quasi-geoid model. The model provides separation values at the nodes on a regular grid of latitude and longitude intersection points. The geodetic latitude and longitude used to interpolate within the grid are not affected by this transformation. The grid is referenced to a specific geographic CRS (the source CRS) and interpolation must be made in this system. Calculation of the separation is achieved through a bi-linear interpolation of the grid, using the latitude and longitude of the point. This step provides the geoid-ellipsoid separation (N) above the ellipsoid of the source Geographic 3D CRS. The normal orthometric height (H) in the target vertical CRS is then determined from: <math>H = h - N</math> where <math>h</math> = the height above the ellipsoid in the source geographic 3D CRS.</p>

## Operation parameters

*Geoid (height correction) model file*