ISO Geodetic Registry

Item class Transformation

NZGD1949 to NZGD2000 [LINZv2]

Item status VALID Identifier 711

Information source Title Standard for New Zealand Geodetic Datum 2000

Author Office of the Surveyor General Publisher Land Information New Zealand

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Issue identification LINZS25000

Data source ISO Geodetic Registry

Remarks Medium accuracy seven parameter version of NZGD1949 to

NZGD2000 transformation by LINZ. For slightly lower (5 m) accuracy accuracy use three parameter transformation version LINZv1. For highest (0.1-1 m) accuracy use grid transformation version LINZv3.

Operation version LINZv2

Scope Spatial referencing.

Operation accuracy 4.0 m

Source CRS NZGD1949 - LatLon
Target CRS NZGD2000 - LatLon

Operation method Coordinate Frame Transformation (geographic 2D domain)

Extent

| Description | New Zealand - onshore and nearshore - North Island, South Island, Stewart Island. | |
|-------------------------|---|--------|
| Geographic Bounding Box | West-bound longitude | 165.87 |
| | North-bound latitude | -33.89 |
| | East-bound longitude | 179.27 |
| | South-bound latitude | -47.65 |

Operation parameter values

| X-axis translation | 59.47 metre | |
|--------------------|---------------------------|--|
| Y-axis translation | -5.04 metre | |
| Z-axis translation | 187.44 metre | |
| X-axis rotation | -0.47 arc-second | |
| Y-axis rotation | 0.1 arc-second | |
| Z-axis rotation | -1.024 arc-second | |
| Scale difference | -4.5993 parts per million | |

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Item class OperationMethod

Name Coordinate Frame Transformation (geographic

2D domain)

Item status VALID Identifier 79

Alias 7-Parameter Transformation
Alias Geocentric Transformation
Alias Bursa-Wolf Transformation
Coordinate Transformation
Alias Geographic Transformation
Helmert Transformation
Data source ISO Geodetic Registry

Remarks This method is similar to the Coordinate Frame Transformation in the

geographic 3D domain but in the geographic 2D domain. This method uses counter-clockwise rotations and is similar to the Position Vector Transformation that uses clockwise rotations. The Position Vector (clockwise) convention is used by the International Earth Rotation and Reference Systems Service (IERS) and International GNSS Service (IGS). See the geocentric Cartesian and geographic 3D variants of this

method for transformations of other CRS types.

Operation parameters

X-axis translation
Y-axis translation
Z-axis translation
X-axis rotation
Y-axis rotation
Z-axis rotation
Z-axis rotation
Z-axis rotation