

NZ 8m Digital Elevation Model (2012)

Metadata

File Identifier

| 967d1a35-f448-9fde-a246-3088a3033de6

Language

| eng

Character Set

Character Set Code

| utf8

Hierarchy Level

Scope Code

| dataset

Hierarchy Level Name

| dataset

Contact

Responsible Party

Individual Name

| omit

Organisation Name

| LINZ - Land Information New Zealand

Position Name

| Chief Topographer

Contact Info

Contact

Phone

Telephone

Voice

| 04 4600110

Address

Address

Delivery Point

| 155 The Terrace

City

| Wellington

Postal Code

| 6145

Country

New Zealand

Electronic Mail Address

info@linz.govt.nz

Role**Role Code**

resourceProvider

Date Stamp**Date**

2016-03-02

Metadata Standard Name

ANZLIC Metadata Profile: An Australian/New Zealand Profile of AS/NZS ISO 19115:2005, Geographic information - Metadata

Metadata Standard Version

1.1

Reference System Info**Reference System****Reference System Identifier****Identifier****Code**

2193

Identification Info**Data Identification****Citation****Citation****Title**

NZ 8m Digital Elevation Model (2012)

Date**Date****Other Citation Details**<http://geographx.co.nz>**Abstract**

This 8m DEM was originally created by Geographx (<http://geographx.co.nz>) and was primarily derived from January 2012 LINZ Topo50 20m contours (<https://data.linz.govt.nz/layer/768>). Spatial accuracy is nominally the same as for the LINZ source data: 90% of well-defined points are within ± 22 metres horizontally and within ± 10 metres vertically. For a full description of the how the DEM was generated refer to this layer's metadata.

Purpose

The main criterion in its production was the detailed and accurate depiction of natural landforms. It is therefore suitable primarily for cartographic visualisation. Because it was created by the interpolation of 20m contours with post-processing and filtering it is not suitable for terrain analysis.

Status

Progress Code

completed

Point Of Contact

Responsible Party

Individual Name

Omit

Organisation Name

LINZ - Land Information New Zealand

Position Name

Technical Leader, National Topographic Office

Contact Info

Contact

Phone

Telephone

Voice

0800 665 463 or +64 4 460 0110

Facsimile

+64 4 472 2244

Address

Address

Delivery Point

155 The Terrace

City

Wellington

Postal Code

6145

Country

New Zealand

Electronic Mail Address

info@linz.govt.nz

Role

Role Code

pointOfContact

Resource Maintenance

Maintenance Information

Maintenance And Update Frequency

Maintenance Frequency Code

notPlanned

Resource Format

Format

Name

*.xml

Version

Unknown

Descriptive Keywords

Keywords

Keyword

New Zealand

Type

Keyword Type Code

theme

Thesaurus Name

Citation

Title

ANZLIC Jurisdictions

Date

Edition

Version 2.1

Edition Date

Date

2008-10-29

Identifier

Identifier

Code

<http://asdd.ga.gov.au/asdd/profileinfo/anzlic-jurisdic.xml#anzlic-jurisdic>

Cited Responsible Party

Responsible Party

Organisation Name

ANZLIC the Spatial Information Council

Role

Role Code

custodian

Resource Constraints

Security Constraints

Classification

Classification Code

unclassified

Resource Constraints

Legal Constraints

Use Limitation

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Use Constraints

Restriction Code

copyright

Resource Constraints

Legal Constraints

Use Limitation

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Use Constraints

Restriction Code

license

Spatial Representation Type Code

grid

Representative Fraction

Denominator

Integer

50000

Language

eng

Character Set

Character Set Code

utf8

Topic Category Code

elevation

Topic Category Code

imageryBaseMapsEarthCover

Extent

EX _ Extent

Geographic Element

EX _ Geographic Bounding Box

166.315721815178.610844756-47.534528605-34.0302522085

Distribution Info

Distribution

Transfer Options

Digital Transfer Options

On Line

Online Resource

Linkage

URL

<https://data.linz.govt.nz/layer/51768-nz-8m-digital-elevation-model-2012/>

Data Quality Info

DQ _ Data Quality

Scope

DQ _ Scope

Level

Scope Code

dataset

Level Description

Scope Description

Other

dataset

Lineage

LI _ Lineage

Statement

The Geographx New Zealand Digital Elevation Model version 2.1 covers the three main islands of New Zealand (North Is, South Is, Rakiura/Stewart Is) at a cell resolution of 8 metres. It is prepared primarily from 1:50 000 topographic data from Land Information New Zealand (the LINZ classes used are contour, height, coastline, island, lake, lagoon, pond, reservoir, sand, mud, shingle, reef, shoal, rock (polygons and points) and rock outcrop), with 3-second SRTM data (USGS, Shuttle Radar Topography Mission (February 2000), unfilled finished version B (2006). Global Land Cover Facility, University of Maryland - www.landcover.org) used in a supporting role. The main criterion in its production is the detailed and accurate depiction of natural landforms. It is therefore suitable primarily for cartographic visualisation. It may also be useful for terrain analysis, before the acquisition of high-resolution data for a region of interest. Spatial accuracy is nominally the same as for the LINZ source data: 90% of well-defined points are within ± 22 metres horizontally and within ± 10 metres vertically. The DEM is initially derived by constrained triangulation, with post-processing using the DEST algorithm (Favalli M and M T Pareschi, "Digital elevation model construction from structured topographic data: the DEST algorithm", J Geophysical Research 109 (2004)), followed by signal detection and filtering to suppress artifacts while preserving natural form. Processing is performed in Manifold System 8. Waterbody elevations In version 2.1, all LINZ waterbody classes (lake, lagoon, pond and reservoir) are given either a validated LINZ height, or an estimated height. Validation was performed by correlating LINZ waterbody elevations to the height of the

underlying contour, the correlation being used to identify outlying values, which were validated, excluded or (in the case of obvious typographical errors) corrected. A revised correlation, along with constrained SRTM heights and information about local convexity or concavity, was then used to estimate all waterbody heights. Parameters were adjusted to minimize RMS difference between estimated height and validated LINZ heights. Waterbodies with no LINZ elevation (or with an invalidated elevation) were then given the estimated height. Coastal elevations Coastal features have been assigned representative elevations. The LINZ coastline and island outlines depict not mean sea level, but high water mark (generally the line of visible debris), and are assigned a constant elevation of 1.5m. Coastal sand, mud and shingle are given elevation 1.0m, while coastal rock, reefs and shoals are assigned 0.5m. This layer was modified 01 March 2016 using 'gdalwarp' to covert the values in ocean regions to 'no data'. Ocean regions are determined by overlaying the LINZ Topo50 Coastlines and Polygons (<https://data.linz.govt.nz/layer/1153-nz-coastlines-and-islands-polygons-topo-150k/>) and converting those values outside the coastlines layer. This action was performed for each individual DEM tiles in a batched process. The projection used for the entire operation is NZTM. For Windows: FOR %i in (*.tif) do (gdalwarp -s_srs EPSG:2193 -cutline ~\topo50_coastline.shp %i ~\dem_clip\%i) For LINUX: find . -name '*.gdb' | xargs -P 3 -t -n1 -I % gdalwarp -s_srs EPSG:2193 -cutline ~\topo50_coastline.shp % ~\dem_clip\% The result is a DEM for only the land regions of NZ.

Metadata Constraints

Security Constraints

Classification

Classification Code

unclassified

Metadata Constraints

Legal Constraints

Use Limitation

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Use Constraints

Restriction Code

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