

References

- G-NAF Product Description (<https://geoscape.com.au/documentation/>)
- G-NAF Core (<https://geoscape.com.au/data/g-naf-core/>)

Overview

The Geocoded National Address File (G-NAF) is Australia's most trusted, geocoded address file. Over 50 million contributed addresses are distilled into more than 15.2 million G-NAF addresses every quarter. It contains the state, suburb, street, number and coordinate reference (or "geocode") for street addresses in Australia. G-NAF does not contain any personal information or details relating to an individual.

G-NAF Core reduces the complexity of G-NAF by delivering the data in a simplified table model. This reduces the need to select fields and build data relationships to access G-NAF's essential address data, making it easier to use with less technical effort.

Technical Description

Data format

G-NAF Core is provided as text files in pipe ("|") separated format. The files are significant in size and are unlikely to open using standard home or office spreadsheet applications.

Retired address file

G-NAF Core contains two files, one containing current active addresses (GNAF_CORE) and the other containing 'retired' addresses (GNAF_CORE_RETIRED)

A retired address is an address that was previously active in G-NAF but is now no longer supplied by any of the G-NAF contributors. (-1 CONFIDENCE value in G-NAF)

In some cases, a retired address may have been replaced with an updated address with a new locality or street name.

G-NAF to G-NAF Core relationships

The accompanying Data Dictionary below contains a description of the mappings between G-NAF and G-NAF Core fields.

Geocodes

A 'geocode' is a point feature for an address described as a coordinate (LATITUDE/LONGITUDE).

Although G-NAF may have multiple geocodes representing various real-world features at an address (e.g. property centre, access point, building centre), G-NAF Core only provides the G-NAF 'default' geocode for each address. The GEOCODE_TYPE attribute describes the type of geocode applied to the address. This is typically the centre of the land parcel/property.

The coordinates in G-NAF Core reference the GDA2020 datum. [Click here](#) for more information about the GDA2020 datum.

Address label

G-NAF Core includes an 'ADDRESS_LABEL' attribute which is a formatted, readable address label combining an address's elements into a single descriptive string.

Other relationships

G-NAF Core includes references to assist integration with external information:

- a land parcel identifier (LEGAL_PARCEL_ID) and
- the Australian Bureau of Statistics Mesh Blocks (MB_CODE) for association with statistical data.

Licence

Like G-NAF, G-NAF Core is available as open data. It is licensed by Geoscape Australia for use in accordance with the [End User License Agreement \(EULA\)](#).

The EULA terms are based on the [Creative Commons Attribution 4.0 International license \(CC BY 4.0\)](#).

Use Restriction

G-NAF Core must not be used for the generation of an address or a compilation of addresses for the sending of mail unless the user has verified that each address to be used for the sending of mail can receive mail by reference to a secondary source of information.

Attribution

Users should note the following attribution requirements:

For the Licensed Material:

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For Adapted Material:

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More Information

For more information on G-NAF please refer to the G-NAF Product Description.

Geoscape Australia Support

Geoscape Australia

Email: support@geoscape.com.au

Portal: support.geoscape.com.au

Web: www.geoscape.com.au

Data Model

G-NAF CORE

GNAF_CORE

*PK ADDRESS_DETAIL_PID: VARCHAR (15)
DATE_CREATED: DATE
ADDRESS_LABEL: VARCHAR (150)
ADDRESS_SITE_NAME: VARCHAR (200)
BUILDING_NAME: VARCHAR (200)
FLAT_TYPE: VARCHAR (50)
FLAT_NUMBER: VARCHAR (11)
LEVEL_TYPE: VARCHAR (50)
LEVEL_NUMBER: VARCHAR (9)
NUMBER_FIRST: VARCHAR (13)
NUMBER_LAST: VARCHAR (13)
LOT_NUMBER: VARCHAR (11)
STREET_NAME: VARCHAR (100)
STREET_TYPE: VARCHAR (15)
STREET_SUFFIX: VARCHAR (50)
LOCALITY_NAME: VARCHAR (100)
STATE: VARCHAR (3)
POSTCODE: VARCHAR (4)
LEGAL_PARCEL_ID: VARCHAR (20)
MB_CODE: VARCHAR (15)
ALIAS_PRINCIPAL: VARCHAR (9)
PRINCIPAL_PID: VARCHAR (15)
PRIMARY_SECONDARY: VARCHAR (9)
PRIMARY_PID: VARCHAR (15)
GEOCODE_TYPE: VARCHAR (50)
LONGITUDE: NUMBER (11,8)
LATITUDE: NUMBER (10,8)

GNAF_CORE_RETIRED

*PK ADDRESS_DETAIL_PID: VARCHAR (15)
DATE_CREATED: DATE
ADDRESS_LABEL: VARCHAR (150)
ADDRESS_SITE_NAME: VARCHAR (200)
BUILDING_NAME: VARCHAR (200)
FLAT_TYPE: VARCHAR (50)
FLAT_NUMBER: VARCHAR (11)
LEVEL_TYPE: VARCHAR (50)
LEVEL_NUMBER: VARCHAR (9)
NUMBER_FIRST: VARCHAR (13)
NUMBER_LAST: VARCHAR (13)
LOT_NUMBER: VARCHAR (11)
STREET_NAME: VARCHAR (100)
STREET_TYPE: VARCHAR (15)
STREET_SUFFIX: VARCHAR (50)
LOCALITY_NAME: VARCHAR (100)
STATE: VARCHAR (3)
POSTCODE: VARCHAR (4)
LEGAL_PARCEL_ID: VARCHAR (20)
MB_CODE: VARCHAR (15)
ALIAS_PRINCIPAL: VARCHAR (9)
PRINCIPAL_PID: VARCHAR (15)
PRIMARY_SECONDARY: VARCHAR (9)
PRIMARY_PID: VARCHAR (15)
GEOCODE_TYPE: VARCHAR (50)
LONGITUDE: NUMBER (11,8)
LATITUDE: NUMBER (10,8)

Data Dictionary

This data dictionary is applicable for the GNAF_CORE and GNAF_CORE_RETIRED tables.

Detailed descriptions of the attributes can be found in Appendix C of the G-NAF Product Description (<https://geoscape.com.au/documentation/>).

Name	Data Type	Description	G-NAF Mapping	Mandatory
ADDRESS_DETAIL_PID	string (15)	A persistent identifier unique to each address.	ADDRESS_DETAIL.ADDRESS_DETAIL_PID	Yes
DATE_CREATED	date	Date the record was created in G-NAF (dd-mm-yyyy).	ADDRESS_DETAIL.DATE_CREATED in dd-mm-yyyy format (day-month-year).	Yes
ADDRESS_LABEL	string (150)	A formatted, readable address label combining address elements into a single descriptive string.	Combination of ADDRESS_DETAIL, ADDRESS_SITE, FLAT_TYPE_AUT, LOCALITY, LEVEL_TYPE_AUT, STREET_LOCALITY, STREET_SUFFIX_AUT and STREET_TYPE_AUT attribution.	Yes
ADDRESS_SITE_NAME	string (200)	Site name.	ADDRESS_SITE.ADDRESS_SITE_NAME	No
BUILDING_NAME	string (200)	Building/property name.	ADDRESS_DETAIL.BUILDING_NAME	No
FLAT_TYPE	string (50)	The type of a separately identifiable portion within a building/complex. e.g. 'Flat', 'Unit', 'Shop'	FLAT_TYPE_AUT.NAME	No
FLAT_NUMBER	string (9)	Flat/unit number.	Combination of FLAT_NUMBER_PREFIX, FLAT_NUMBER and FLAT_NUMBER_SUFFIX from the ADDRESS_DETAIL table.	No
LEVEL_TYPE	string (50)	Level type. e.g. 'LEVEL', 'FLOOR', 'BASEMENT'	LEVEL_TYPE_AUT.NAME	No
LEVEL_NUMBER	string (7)	Level number.	Combination of LEVEL_NUMBER_PREFIX, LEVEL_NUMBER and LEVEL_NUMBER_SUFFIX from the ADDRESS_DETAIL table.	No
NUMBER_FIRST	string (11)	The first (or only) street number in a range.	Combination of NUMBER_FIRST_PREFIX, NUMBER_FIRST and NUMBER_FIRST_SUFFIX from the ADDRESS_DETAIL table.	No
NUMBER_LAST	string (11)	The last street number in a range.	Combination of NUMBER_LAST_PREFIX, NUMBER_LAST and NUMBER_LAST_SUFFIX from the ADDRESS_DETAIL table.	No

Name	Data Type	Description	G-NAF Mapping	Mandatory
LOT_NUMBER	string (9)	Lot number.	Combination of the LOT_NUMBER_PREFIX, LOT_NUMBER and LOT_NUMBER_SUFFIX from the ADDRESS_DETAIL table.	No
STREET_NAME	string (100)	Street name.	STREET_LOCALITY.STREET_NAME	Yes
STREET_TYPE	string (15)	Street type. e.g. 'STREET', 'ROAD', 'AVENUE'	STREET_TYPE_AUT.NAME	No
STREET_SUFFIX	string (50)	Street suffix. e.g. 'EAST', 'NORTH'	STREET_SUFFIX_AUT.NAME	No
LOCALITY_NAME	string (100)	The name of the locality or suburb.	LOCALITY.LOCALITY_NAME	Yes
STATE	string (3)	State or territory abbreviation.	STATE.STATE_ABBREVIATION	Yes
POSTCODE	string (4)	Postcode.	ADDRESS_DETAIL.POSTCODE	No
LEGAL_PARCEL_ID	string (20)	Land parcel identifier. See G-NAF Product Description for more information on the composition of this value.	ADDRESS_DETAIL.LEGAL_PARCEL_ID	No
MB_CODE	string (15)	ABS 2021 Mesh Block code.	MB_2021.MB_2021_CODE	No
ALIAS_PRINCIPAL	string (9)	An address is either a PRINCIPAL or ALIAS (alternate). An alias may not be the 'official' address for a site but is a version that is recognised or in popular use.	ADDRESS_DETAIL.ALIAS_PRINCIPAL	Yes
PRINCIPAL_PID	string (15)	If the address is an ALIAS, the identifier of its related principal.	ADDRESS_ALIAS.PRINCIPAL_PID	No
PRIMARY_SECONDARY	string (9)	An address is either a PRIMARY or SECONDARY. A secondary address is a separately identifiable portion within a primary address. e.g. a 'flat' or 'unit'	ADDRESS_DETAIL.PRIMARY_SECONDARY	No
PRIMARY_PID	string (15)	If the address is a SECONDARY, the identifier of the related primary address.	PRIMARY_SECONDARY.PRIMARY_PID	No
GEOCODE_TYPE	string (50)	Describes the type of geocode applied to the address. e.g. 'PROPERTY CENTROID', 'ACCESS POINT'. G-NAF Core provides only one geocode for each address.	GEOCODE_TYPE_AUT.NAME	Yes
LONGITUDE	number (11,8)	East/west coordinate.	ADDRESS_DEFAULT_GEOCODE.LONGITUDE	Yes
LATITUDE	number (10,8)	North/south coordinate.	ADDRESS_DEFAULT_GEOCODE.LATITUDE	Yes