pitney bowes

G-NAF Premium Build ® Australia

Getting Started Guide

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ACKNOWLEDGEMENT

Pitney Bowes Software Australia is the largest distributor of digital spatial data products in Australia. By nurturing solid relationships with authoritative data suppliers, like PSMA Australia, State / Territory jurisdictions, and through the significant feedback from our customer base Pitney Bowes Software are able to offer cost effective digital data products that meet the current and future needs of our customers.

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Pitney Bowes Software www.pitneybowes.com/au

PSMA Australia Limited www.psma.com.au

INTRODUCTION

Pitney Bowes Software has been delivering spatial data solutions in Australia for over 10 years. In that time we have developed significant expertise in the use and maintenance of addressing data to formulate 'fit-for-purpose' data products. The result is a customised data build of the Geocoded National Address File (G-NAF).

Below is a summary of the ways in which Pitney Bowes Software is delivering the value within G-NAF to the market.

G-NAF Distribution

Pitney Bowes Software was identified and appointed as the first G-NAF distributor in Australia. G-NAF distribution involves the scope, configuration, and delivery of G-NAF to meet the specific needs of an organization.

There is a broad array of information within the G-NAF, so it is important that an organization understands how to best use it – to maximize the value from their investment. Pitney Bowes Software's professional services team can ensure maximum value is attained through the use of G-NAF. However, it is envisaged that many clients will have similar, basic requirements from G-NAF. That is the reason why the *G-NAF Premium Build* was created.

The *G-NAF Premium Build* is a useful way of licensing G-NAF, as it isn't always necessary to use professional services for integration and maintenance.

License Models

G-NAF is available under a choice of license models:

- Desktop
- Server Deployment
- Corporate Access, and
- Purpose-built validation indexes

Care must be taken to ensure the most appropriate license model is used to meet the business needs.

Premium Build

The Premium Build of G-NAF is a general purpose, value-added data build that is designed to meet the needs of most users. By default, G-NAF is supplied as an array of proprietary files designed for loading into RDBMS. With more than 6GB of content available, this process can be quite daunting for those who merely require a simple address search layer in their spatial solution.

The Premium Build is designed to make the use of G-NAF easy and available in a *'plug n play'* form. It is made up of points with geographic coordinates and basic address information. It makes it possible to verify a physical address in Australia and locate its position.

G-NAF Premium Build exhibits value-added enhancements to allow user to uniquely and precisely identify addresses throughout Australia and its territories. These enhancements are derived from Pitney Bowes Suburbs and Localities, Postcodes and Australian Bureau of Statistics Census District boundaries (CD Code) and Statistical District boundaries (SA1).

G-NAF Premium Build includes both property parcel centroid and frontage coordinates in separate tables for all reliability 1, 2 and 3 address records (parcel level precision). Reliability code 4, 5 and 6 address records are maintained at the original coordinates as supplied by PSMA.

For ACT and VIC reliability 1, 2 and 3 - PSMA provides original coordinates at the parcel frontage. In G-NAF Premium Build these coordinates are represented by GNAF_ACT_F.TAB and GNAF_VIC_F.TAB.
GNAF_ACT.TAB and GNAF_VIC.TAB are value added tables having address records at the property parcel centroid.

For other states reliability 1, 2 and 3 – PSMA provides original coordinates at the parcel centroid. In G-NAF Premium Build these coordinates are represented by GNAF_<State>.TAB.
GNAF_<State>_F.TAB is value added tables having address records at the property parcel frontage.

Custom Builds

If the client needs are not met by the Premium Build then a custom build can be delivered to meet specific requirements. Please engage Pitney Bowes Software or one of our authorized partners for further assistance.

G-NAF PREMIUM BUILD – TABLE DEFINITION

1

The G-NAF Premium Build from Pitney Bowes Software is derived from the PSMA Australia Limited's G-NAF® quarterly release. Pitney Bowes Software has developed a standard build to present key addressing information in a readily accessible format.

Layer Description

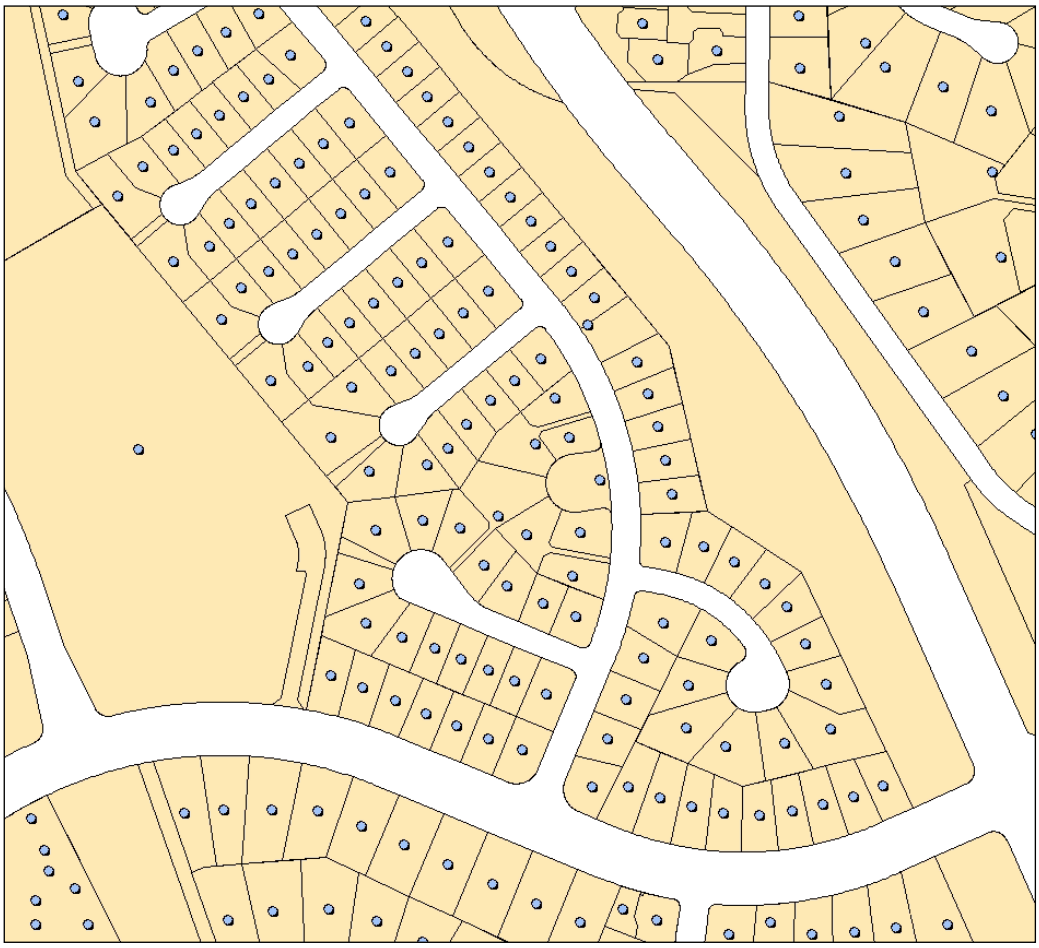
The Premium Build comprises two layers for each state:

- ***GNAF_<State>.TAB*** - Containing reliability values 1-3 (parcel level precision).

  These tables contain all address records from G-NAF with high precision spatial coordinates, and are classified with a reliability code of 1, 2, or 3.

  This table is appropriate for use when it is essential that high precision location is important.

  This table contains all address records at the parcel centroid. For all states except ACT and VIC this table represents the original coordinates of the PSMA source data.

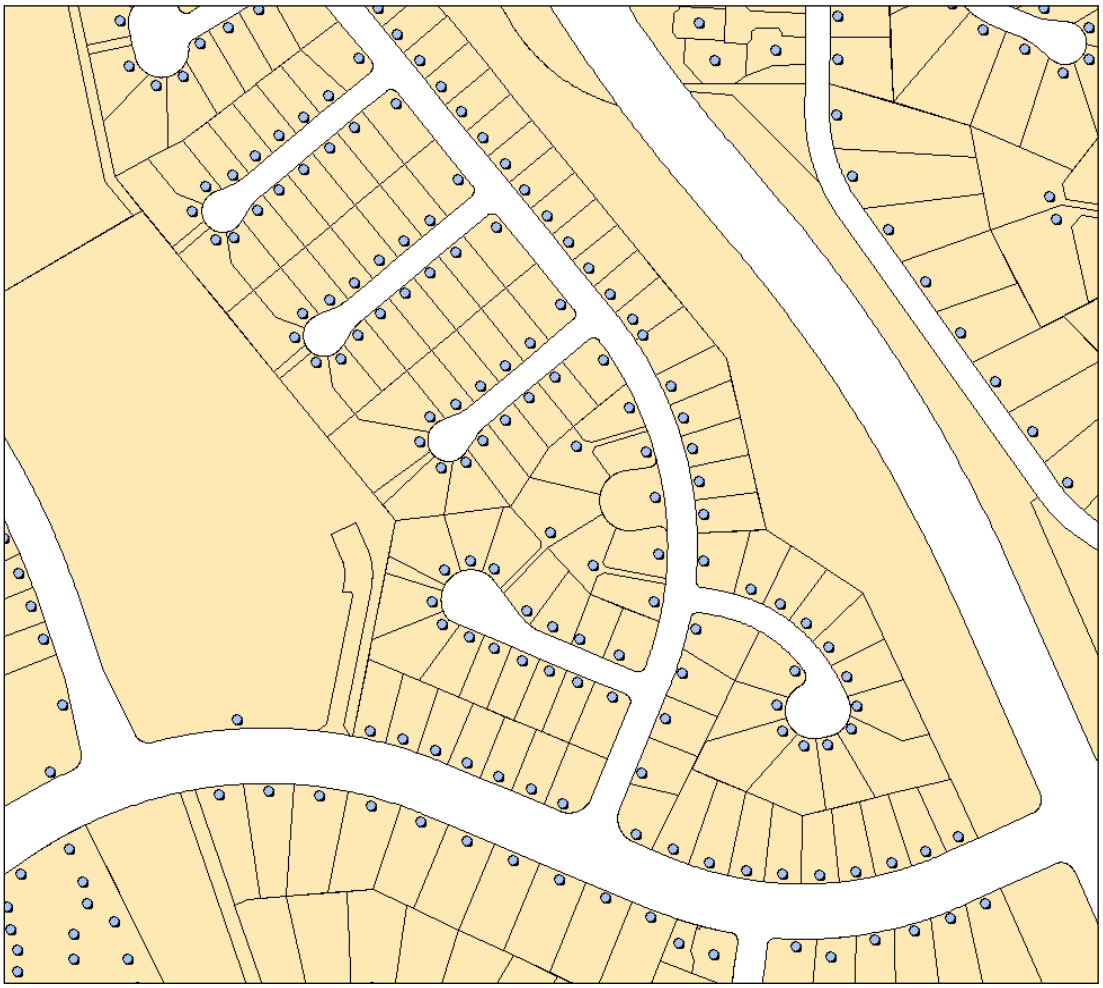


- ***GNAF_<State>_F.TAB*** - Containing reliability values 1-3 (parcel level precision).

  These tables contain all address records from G-NAF with high precision spatial coordinates, and are classified with a reliability code of 1, 2, or 3.

  This table is appropriate for use when it is essential that high precision location is important.

  This table contains all address records at the parcel frontage. For ACT and VIC this table represents the original coordinates of the PSMA source data.



- ***GNAF_<State>_R456.TAB*** – Containing reliability codes 4-6 (non-parcel level precision).

  This table contains the remainder of address information in G-NAF that does not meet high precision geocoding criteria. In this table good address references can continue to be used but the locations of the points are less accurate.

  Reliability codes 4, 5, and 6 suggest that the location for each address point is either at center of road centerline, middle of gazetted locality, or at the centre of a known topographic feature in the area respectively.

Table Structure

Field	Description	Type	Indexed
GNAF_PID	G-NAF Primary Identifier (unique)	Char (14)	NO
SEARCH_ADDRESS	Full street address, including number range where applicable (eg 75-79 Jersey Street N)	Char (50)	YES
ADDRESS_TYPE	Type of address (eg house, lot, urban, rural)	Char (8)	NO
FLAT_NUMBER_PREFIX	Flat/unit number prefix	Char (2)	NO
FLAT_NUMBER	Flat/unit number	Decimal (7, 0)	NO
FLAT_NUMBER_SUFFIX	Flat/unit number suffix	Char (2)	NO
FLAT_TYPE	Specification of the type of separately identifiable portion within a building/complex	Char (4)	NO
LEVEL_TYPE	Level type	Char (2)	NO
LEVEL_NUMBER_PREFIX	Level number prefix	Char (2)	NO
LEVEL_NUMBER	Level number	Decimal (5, 0)	NO
LEVEL_NUMBER_SUFFIX	Level number suffix	Char (2)	NO
BUILDING_NAME	Combines both building and property name fields	Char (80)	NO
NUMBER_FIRST_PREFIX	Prefix for the first (or only) street number in address range	Char (3)	NO
NUMBER_FIRST	Identifies first (or only) street number in address range	Decimal (8, 0)	NO
NUMBER_FIRST_SUFFIX	Suffix for the first (or only) street number in address range	Char (2)	NO
NUMBER_LAST_PREFIX	Prefix for the last street number in address range	Char (3)	NO
NUMBER_LAST	Identifies last street number in address range	Decimal (8, 0)	NO
NUMBER_LAST_SUFFIX	Suffix for the last number in address range	Char (2)	NO
LOT_NUMBER_PREFIX	Lot number prefix	Char (2)	NO
LOT_NUMBER	Lot number	Char (5)	NO
LOT_NUMBER_SUFFIX	Lot number suffix	Char (2)	NO
STREET_NAME	Street name (eg Jersey)	Char (40)	NO
STREET_TYPE	Street type (eg Street)	Char (12)	NO
STREET_SUFFIX	Abbreviated street suffix (eg N = North)	Char (2)	NO
LOCALITY_NAME	Locality name (eg Hornsby)	Char (40)	YES
SL_UFI	The Suburbs and Localities Unique Feature Identifier (SL_UFI). This identifier corresponds to a unique suburb / locality polygon in the Pitney Bowes's Suburbs and Localities Australia product	Decimal (11, 0)	NO
POSTCODE	4-digit postcode. Postcodes are optional as prescribed by AS/NZS 4819-2011 and AS 4590-2006.	Char(4)	YES
STATE_ABBREVIATION	State abbreviation: • *ACT – Australian Capital Territory* • *NSW – New South Wales* • *NT – Northern Territory* • *OT – Other Territories (including Jervis Bay, Cocos and Keeling Islands)* • *QLD – Queensland* • *SA – South Australia* • *TAS – Tasmania* • *VIC – Victoria* • *WA – Western Australia*	Char (3)	NO
CONFIDENCE	Reflects how many source datasets this address was derived from: • *0 = 1 source dataset* • *1 = 2 source datasets* • *2 = 3 source datasets*	Decimal (3, 0)	NO

RELIABILITY	Spatial precision of the geocoded coordinates expressed as a number in the range: • *1 - Geocode accuracy recorded to appropriate surveying standard* • *2 - Geocode accuracy sufficient to place centroid within address site boundary* • *3 - Geocode accuracy sufficient to place centroid near (or possibly within) address site boundary* • *4 - Geocode accuracy sufficient to associate address site with a unique road feature* • *5 - Geocode accuracy sufficient to associate address site with a unique locality or neighborhood* • *6 - Geocode accuracy sufficient to associate address site with a unique region*	Decimal (3, 0)	NO
ADDRESS_CLASS	*A - Alias address record* *P - Principal address record* *PP - Principal primary address record* *PS - Principal secondary address record* *AP – Alias primary address record* *AS – Alias secondary address record,* where: A *primary address* will be defined as a principal address which does not have a flat number but which matches the secondary address in all other respects OR is designated as owning secondary addresses by PSMA (e.g. involves private road in complex development). A *secondary address* will be defined as any address with a flat_number or more literally any address where flat_number_prefix, flat_number or flat_number_suffix is not null OR is designated as being linked to a primary address by PSMA (e.g. involves private road in a complex development).	Char (2)	NO
LEVEL_GEOCODED_CODE	Indicator of the level of geocoding precision the address point has: • *0 - No geocode* • *1 - No Locality geocode, No Street geocode, Address geocode* • *2 - No Locality geocode, Street geocode, No Address geocode* • *3 - No Locality geocode, Street geocode, Address geocode* • *4 - Locality geocode, No Street geocode, No Address geocode* • *5 - Locality geocode, No Street geocode, Address geocode* • *6 - Locality geocode, Street geocode, No Address geocode* • *7 - Locality geocode, Street geocode, Address geocode*	Decimal (4, 0)	NO
GEOCODE_TYPE	Indicator of the type of geocoding precision the address point has: • *Building Access Point - point of access to the building.* • *Building Centroid - point as centre of building and lying within its bounds (e.g. for u - shaped building).* • *Centre-line Dropped Frontage - a point on the road centre - line opposite the centre of the road frontage of an address site.* • *Driveway Frontage - centre of driveway on address site frontage.* • *Electricity Connection Point - electricity connection point (e.g. box, or underground chamber).* • *Electricity Meter - electricity meter point (e.g. box, or underground chamber).* • *Emergency Access - specific building or property access point for emergency services.* • *Emergency Access Secondary - specific building or property secondary access point for emergency services.* • *Front Door Access - front door of building.*	Char (30)	NO

	• *Frontage Centre - point on the centre of the address site frontage.* • *Frontage Centre Setback - a point set back from the centre of the road frontage within an address site.* • *Gap Geocode - point programmatically allocated during the g-naf production process proportionally between adjacent address locations (based on number_first).* • *Gas Connection Point - gas connection point (e.g. box, or underground chamber).* • *Gas Meter - gas meter point (e.g. box, or underground chamber).* • *Internet Connection Point - internet connection point (e.g. box, or underground chamber).* • *Letterbox - place where mail is deposited.* • *Locality - point representing a locality* • *PBS - Frontage Centre Setback - a point set back from the centre of the road frontage within an address site. Location determined by Pitney Bowes Software processes.* • *PBS - Property Centroid - point at the centre of a parcel making up a property and lying within its boundaries (e.g. for l - shaped property). Location determined by Pitney Bowes Software processes.* • *Property Access Point - access point (centre of) at the road frontage of the property.* • *Property Access Point Setback - a point set back from the (centre of the) access point at the road frontage of the property.* • *Property Centroid - point of centre of parcels making up a property and lying within its boundaries (e.g. for l - shaped property).* • *Property Centroid Manual - point manually placed approximately at centre of parcels making up a property and lying within its boundaries (e.g. for l - shaped property).* • *Sewerage Connection point - sewerage connection point (e.g. box, or underground chamber).* • *Street Locality - point representing the extent of a street within a locality* • *Telephone Connection Point - telephone connection point (e.g. box, or underground chamber).* • *Unit Centroid - point at centre of unit and lying within its bounds (e.g. for u - shaped unit).* • *Unit Centroid Manual - point manually placed approximately at centre of unit and lying within its bounds (e.g. for u - shaped unit).* • *Unknown - the type of real world feature the point represents is not known.* • *Water Connection Point - water connection point (e.g. box, or underground chamber).* • *Water Meter - water meter point (e.g. box, or underground chamber).*		
MESHBLK_2016	Mesh Blocks (2016 currency) - micro-level geographical unit for statistics.	Char (13)	YES
MESHBLK_CATEGORY_2016	The category of land use allocated to mesh block (2016 currency). • *Commercial* • *Education* • *Hospital / Medical* • *Industrial* • *Parkland* • *Primary Production* • *Residential* • *Transport* • *Water* • *Other*	Char (16)	NO
PARCEL_ID	Generic parcel id field to be used where custodial data provides such. Although the PARCEL_ID field is accurately	Char (20)	YES

	represented when populated, coverage for the whole of Australia is not complete. It is not recommended that any cross referencing is undertaken to correlate with CadLite's jurisdiction_id field.		
SA1	Statistical Areas Level 1 (2016 currency). The SA1 boundaries are derived from the 2016 mesh block boundaries and form part of the 2016 Australian Statistical Geography Premium (ASGS).	Decimal (13, 0)	YES
AREA_TYPE	Indicator of type of area category DU = Dense Urban U = Urban RU = Rural Urban R = Rural	Char (2)	NO
LONGITUDE	Longitude coordinates in decimal degrees with GDA94 datum.	Decimal (13, 8)	NO
LATITUDE	Latitude coordinates in decimal degrees with GDA94 datum.	Decimal (13, 8)	NO
DATE_CREATED	The date the G-NAF point was created by PSMA	Date	NO
DATE_MODIFIED	The date the G-NAF point was last modified by PSMA	Date	NO

DATA SUPPORT

2

Introduction

Pitney Bowes Software continues to enhance the data support and feedback facilities available to our data clients. Infrastructure has been developed to streamline the handling of customer feedback regarding data products and to ensure that appropriate feedback is provided and that corrective action is taken where necessary.

Customer feedback in the form of data anomaly reports or product performance feedback is highly valued by Pitney Bowes Software. Fax or email feedback is directed to the Data Production Team where all reports are reviewed and acknowledged and scheduled for further action. A comprehensive database has been established to administer the handling of corrections and updates.

Feedback Process

Feedback may take a variety of forms: data quality issues (currency or correctness/accuracy), performance of an application, such as geocoding or routing reliability, or enhancement suggestions.

1. **Feedback Form:** A printed version of the Data Feedback form is supplied with all Pitney Bowes data products, together with an electronic version (Adobe Acrobat (PDF) file) of the same form on the product media. Clients should either Fax the form or email comments directly to the Data Feedback email site: **ozdata@mapinfo.com**.

2. **Handling:** Client feedback is reviewed acknowledged (providing an explanation or indication of planned action) and potentially categorized for further action. Depending upon the nature of the feedback, the feedback may be implemented immediately or scheduled for routine maintenance as part of the next scheduled data release. The feedback database keeps track of progress on each feedback item. Follow-up details on the nature of the corrective action are provided to the client.