



# Data Testing

---

Oct 2020



It is very important for customers to test their verification rule set using both real live data and 'stubs'. Without doing this, potential problems can go unnoticed until it's too late.

## About real data testing

Testing with real data means just that - inputting real people's details into the system. The results that they achieve are the same as they would be if that person was a real customer. Testing with real data means:

- you can be sure that all data is being sent to greenID in the correct field and format
- you can get a feel for how easy or hard your chosen verification rule set is to pass, and whether you have selected a good range of data sources
- you can address these things before going live

GreenID does not provide real data for testing, however, we are happy to purge your test system of all data prior to go live.

## About stubs testing

Stubs testing allows various codes to be input that will force different verification results on each data source. Stubs makes it easy to use fake data to force various verification results, removing the need to find real data that can achieve all these results.

However, testing only with stubs (and not doing any real data testing) means that the actual format of the data you are sending to greenID is never tested for errors (most data fields are ignored under stubs testing). You may find too late that you are not sending the address in the correct fields, for example, because only testing with real data would pick this up.

## Turning on Stubs

Stubs can be turned on via the Administration Panel. Note that stubs are only available in test they do not work in production. After logging into the Administration Panel, use the "Switch Stubs" menu item to turn stubs on and off. When stubs are "on" they are on for all users of the test site.

Different codes are available for background and interactive checks, as outlined in the following sections. In most rulesets there is no way to completely pass a verification rule set using background sources alone. A combination of the background and interactive stubs codes must be used to achieve full verification.

## Using Stubs

### Changes to stubs

The stubs codes for background have changed to reflect the fact that some data sources are no longer available, and some new data sources have become available.

The update to the stubs codes is dubbed "stubs 2" (i.e. version 2) to differentiate it from the original stubs codes.

### **The original stubs codes are deprecated, and no longer supported.**

The main changes have been to the stubs code for background checks, but there have also been changes to the stubs codes for interactive checks.

The original background stubs codes will continue to function, but they are no longer being supported, and so no changes or fixes will be made. If you are creating or updating tests that use stubs for testing background sources, then use stubs 2.

Stubs codes are now available for New Zealand background and interactive data sources. For full details, please refer to the tables below. New Zealand stubs does not require the use of the "stubs 2" scheme, however other configuration changes must be made to a customer account in order to use New Zealand stubs codes. If you need to use New Zealand stubs, please contact greenID.

Existing background stubs codes will continue to work, so if you have tests with stubs codes in the middle name, they will continue to work. To use stubs 2 with background sources, a different string is required in the middle name field.

**To use stubs 2, the middle name string must be with "2-".** This instructs the greenID stubs manager to use stubs 2. All of the subsequent codes and examples will follow this convention.

If your input validation prohibits the use of digits or hyphens in name fields, the alternate prefix "TWO" can be used.

*\*\* Please note that the stub codes are NOT case sensitive.*

## Using stubs for New Zealand data sources

A customer may elect to use stubs codes for New Zealand data sources. These sources use a different stubs mapping scheme. This is a configuration option that needs to be configured on a customer account. If you need to use New Zealand stubs codes, please contact greenID.

The New Zealand stubs do not require the use of stubs 2. For full details, please refer to the tables below.

## Using stubs for Singapore data sources

There are currently only interactive stubs codes for Singapore data sources. For full details, please refer to the tables below.

## Codes for background checks (Australia)

The code for background checks consists of a series of 14 letters, each of which relate to one of the background checks. GreenID interprets this code and sends back the corresponding result.

This series of letters is sent to greenID in the middle name field. The order of these letters is extremely important to ensure the right verification outcome. The order is defined as below:

Position	Data Source	Position	Data Source
1st	Blacklist (OPAC, DFAT)	10th	Australian Claims Database
2nd	Blacklist (OFAC)	11th	
3rd	Blacklist (PEP)	12th	Western Australian Electoral Roll
4th	Australian Electoral Roll	13th	Victorian Electoral Roll
5th		14th	D&B Credit Header (results in a full name + address + DOB match) *
6th	FCS Public Number Directory	15th	

Position	Data Source	Position	Data Source
7th	ASIC Personal Name Search	16th	greenID alert check (if configured)
8th	Australian Tenancy File	17th	
9th	FNS NAD File	18th	Data Co-op Database (only returns a full match)

\* See below for other D&B Credit Header stubs options, including forcing partial matches.

**\*\* Please note that the stub codes are NOT case sensitive.**

The letters are defined as follows:

- "P" = Pass
- "F" = Fail
- "E" = Error
- "TwoError" = Error (for all sources, i.e. the entire registration)
- "TwoPass" = pass all sources
- "TwoFail" = fail all sources
- Any other character = Fail

Note that if a character is missing, then a fail will be given for that source. For example, if the middle name string contains only 12 "P"s, then the 13th and 14th sources will be automatically failed.

So, an example that would trigger a pass on the White Pages and Electoral Roll sources only, and a fail on all others, is as follows:

2-FFFPPPPPPPPPP

The alternate prefix is used in the same way:

TWOFFFPPPPPPPPPP

## Codes for background checks (New Zealand)

The order is defined as below:

---

Position	Data Source	Position	Data Source
1st	Blacklist (OPAC, DFAT)	7th	D&B Credit Header (results in a full name + address + DOB match) *
2nd	Blacklist (OFAC)	8th	LINZ Property Ownership Database
3rd	Blacklist (PEP)	9th	Tenancy Information NZ (TINZ)
4th	DIA Births	10th	Experian Credit header
5th	NZ Companies Office Directors and Shareholders Database	11th	Centrix Credit Header
6th	DIA Citizenship		

**\*\* Please note that the stub codes are NOT case sensitive.**

The same letters apply to New Zealand stubs codes as to Australian stubs codes, however the prefix "2-" or "TWO" is not required.

So, an example that would trigger a pass on the D&B credit header file only would be

FFFFFFPF

## Codes for background checks (Great Britain)

The order is defined as below:

Position	Data Source	Position	Data Source
1st	DFAT Watchlist	6th	Equifax File
2nd	OFAC Watchlist	7th	
3rd	PEP Watchlist	8th	Credit Lenders

Position	Data Source	Position	Data Source
4th	RedShield Check (if configured)	9th	Electoral Roll
5th	Call Credit Credit File	10th	County Court Judgements

*\*\* Please note that the stub codes are NOT case sensitive.*

## Codes for interactive checks (Australia)

Using the stubs testing approach means the background stubs mentioned in the section above must first be used, after which interactive verification can be attempted. Stubs for interactive checks are accessed via a nominated field per verification method, as defined below.

Whilst performing interactive verification, the tester must enter in a code into the nominated field for that data source, which greenID will interpret and then send back a corresponding response. The field in which the stubs code must be entered varies from source to source.

The codes are detailed in the table below. These codes have been defined to take into consideration:

- format and size of the fields
- check digit restraints

The screens for interactive verification are pre-populated with the individual's details provided at registration; however, the fields should be modified by the tester to include the codes below at the time of interactive testing.

Note: interactive methods not mentioned here do not have stubs at this point in time.

Interactive source	Nominated field for code input	'Verified' result	'Verified With Changes' result	'Pending Review' result	Error (source unavailable)	'Not Contributing' result
Australian Electoral Roll (AML version)	Street No.	1	2	3	4	

Interactive source	Nominated field for code input	'Verified' result	'Verified With Changes' result	'Pending Review' result	Error (source unavailable)	'Not Contributing' result
Australian Electoral Roll (Non-AML version)	Postcode	1111	2222	3333	4444	
Australian Passport - DVS	Passport No.	A1111111	A2222222	A3333333	A4444444	A6666666
Australian Visa - DVS	Passport No.	A1111111	A2222222	A3333333	A4444444	A6666666
Employment Visa	Passport No.	A1111111	A2222222	A3333333	A4444444	
Medicare	Medicare No.	2111111111		3333333303	4444444404	
All driver's licences	Licence No.	11111111		33333333	44444444	
WA Electoral Roll	Street No.	1	2	3	4	
VIC Electoral Roll	Year of birth (any day and month are OK)	1901	1902	1903	1904	
Medibank Private	Membership number	11111111	22222222	33333333	44444444	
Birth Certificate - DVS	Registration No.	11111111	22222222	33333333	44444444	
Australian Citizenship Certificate - DVS	Stock No.	11111111	22222222	33333333	44444444	
Citizenship by descent (post-July 2005) - DVS	Client Id.	111111111111	222222222222	333333333333	444444444444	



Interactive source	Nominated field for code input	'Verified' result	'Verified With Changes' result	'Pending Review' result	Error (source unavailable)	'Not Contributing' result
Citizenship by descent (pre-July 2005) - DVS	Register No.	1111	2222	3333	4444	
Citizenship by descent (pre-July 2005) - DVS	Entry No.	11111	22222	33333	44444	
Marriage Certificate - DVS	Registration No.	11111111	22222222	33333333	44444444	
Change of Name Certificate - DVS	Registration No.	11111111	22222222	33333333	44444444	
Immi Card - DVS	Registration No.	AAA111111	AAA222222	AAA333333	AAA444444	
Registration by Descent Certificate - DVS	Stock No.	11111111	22222222	33333333	44444444	
Centrelink card - DVS	CRN	111111111A		333333333A	444444444A	666666666A

**\*\* Please note that the stub codes are NOT case sensitive.**

## Codes for interactive checks (New Zealand)

Using the stubs testing approach means the background stubs mentioned in the New Zealand background stubs must first be used, after which interactive verification can be attempted. Stubs for interactive checks are accessed via a nominated field per verification method, as defined below.

Whilst performing interactive verification, the tester must enter in a code into the nominated field for that data source, which greenID will interpret and then send back a corresponding response. The field in which the stubs code must be entered varies from source to source.

The codes are detailed in the table below. These codes have been defined to take into consideration:

- format and size of the fields
- check digit restraints

The screens for interactive verification are pre-populated with the individual's details provided at registration; however, the fields should be modified by the tester to include the codes below at the time of interactive testing.

Note: interactive methods not mentioned here do not have stubs at this point in time.

Interactive source	Nominated field for code input	'Verified' result	'Verified With Changes' result	'Pending Review' result	Error (source unavailable)
NZ Transport Authority Driver's Licence	Licence No.	11111111		33333333	44444444
NZ Passport	Passport No.	A1111111	A2222222	A3333333	A4444444
NZ Birth Certificate	Year of birth	1901	1902	1903	1904
NZ Citizenship	Year of birth	1901	1902	1903	1904
Automobile Association Membership	Membership No.	3083261111111111 (name + address + DoB match) 3083261111111112 (name + address match) 3083261111111113 (name + DoB match)	3083262222222222	3083263333333333	3083264444444444
White Pages	Street No.	1	2	3	4

*\*\* Please note that the stub codes are NOT case sensitive.*

### Codes for interactive checks (Singapore)

---

Whilst performing interactive verification, the tester must enter in a code into the nominated field for that data source, which greenID will interpret and then send back a corresponding response. The field in which the stubs code must be entered varies from source to source.

The codes are detailed in the table below. These codes have been defined to take into consideration:

- format and size of the fields
- check digit restraints

The screens for interactive verification are pre-populated with the individual's details provided at registration; however, the fields should be modified by the tester to include the codes below at the time of interactive testing.

Note: interactive methods not mentioned here do not have stubs at this point in time.

Interactive source	Nominated field for code input	'Verified' result	'Verified With Changes' result	'Pending Review' result	Error (source unavailable)
Credit Header (SIV)	NRIC Number	11111111	22222222	33333333	44444444
National Registration Identity Card	NRIC Number	11111111		33333333	44444444

**\*\* Please note that the stub codes are NOT case sensitive.**

### Codes for interactive checks (South Africa)

Interactive source	Nominated field for code input	'Verified' result	'Verified With Changes' result	'Pending Review' result	Error (source unavailable)	Deceased
Credit Bureau Address check	greenid_pbverifycreditheader_number	1101011111015		3303033333035	4404044444040	5505055555059
Credit Header (Compuscan)	greenid_compuscan_number	1101011111015		3303033333035	4404044444040	
Home Affairs National ID check	greenid_nationalidentity_number	1101011111015		3303033333035	4404044444040	5505055555059

**\*\* Please note that the stub codes are NOT case sensitive.**

## Codes for the D&B Credit Header check

The Dun & Bradstreet Credit Header check behaves differently to other checks. Below is the required input to force the possible results.

**Note:** The D&B Credit Header check does not allow any input via the greenID interactive screen. Therefore, **the codes below must be used at the time of customer registration.**

First you need to invoke the Credit Header check by placing a 'P' or 'F' in the relevant position in the middle name field, as described above for Australia or New Zealand.

- Using a 'P' will force a full name + address + DOB 'Verified' result.
- Using an 'F' will force a 'Fail' result.

To force the different possible partial or full matches, the following codes can also be used (in conjunction with the 'P' mentioned above.)

Nominated field for code input	Full name + address + DOB 'Verified' result	Partial name + address 'Verified' result	Partial name + DOB 'Verified' result
Surname	NameAddressDob	NameAddress	NameDob

*\*\* Please note that the stub codes are NOT case sensitive.*

## Testing Lockout Functionality

If lockout functionality has been enabled then if any character other than the codes detailed in the table above is entered 3 times, the tester will achieve a Verification Result of "Lockout". Any incorrect code entered 5 times across any source will result in an overall verification result of "Lockout".

## Testing greenID Alert Responses

greenID Alert must be configured within your account to enable testing of its outcomes.

Testing uses a combination of the 16th letter of middle name as well as the <deviceIDData> field to control the results. The 16th letter in the middle name drives the overall response and the <deviceIDData> field determines the number of RCF codes that are returned.

Accepted values for 16th letter of the middle name are:

A - for an accept pass (greenID alert specific)

D - for a deny fail (greenID alert specific)

C - for a challenge fail (greenID alert specific)

F - a standard fail, same as any other source

P - a standard pass, same as any other source

E - for error, e.g. greenID can not make the call to redshield

An example of the middle name field which would drive a DENY response is 2-FFFFFFFFFFFFFD.

RCF codes indicate the rules that were triggered during the greenID alert check. The number of RCF codes returned for a challenge or deny response is determined by the number in the <deviceIDData> attribute.

Accepted values for <deviceIDData> attribute are:

11111111- a single predetermined RCF code will be returned

22222222 - two predetermined RCF codes will be returned

33333333 - three predetermined RCF codes will be returned

44444444 - four predetermined RCF codes will be returned

55555555 - five predetermined RCF codes will be returned