

# TrueNCOA's Data Dictionary

## Field Descriptions

NOTE: All input fields will be included in your output file. These fields will be prefixed with 'input\_'. For example, a first name input will be named: input\_first\_name.

FIELD NAME	DESCRIPTION
record_id	Individual Record ID
global_id	Global Record ID
change_id	Change ID
individual_id	Individual ID
household_id	Household ID
first_name	First Name
last_name	Last Name
company_name	Company Name
street_number	Street Number
street_pre_direction	Street Pre-Direction
street_name	Street Name
street_post_direction	Street Post Direction
street_suffix	Street Suffix
unit_type	Unit Type: Apartment, Unit, etc.
unit_number	Unit Number
box_number	Private MailBox Number
city_name	City
state_code	State Code
postal_code	Zip5 Code
postal_code_extension	Zip4 Code

FIELD NAME	DESCRIPTION
carrier_route	Postal Carrier Route
address_status	Address Status: <ul style="list-style-type: none"> <li>• V - Valid (match to USPS database)</li> <li>• M - Multi-match (typically missing prefix or suffix, such as North or South)</li> <li>• N - Invalid (no match)</li> </ul>
error_number	DPV error details. <i>See DPV Error Table</i>
address_type	Address Type: <ul style="list-style-type: none"> <li>• F - ZIP+4 Match on the Company Name</li> <li>• G - General Delivery Record</li> <li>• H - High Rise Record</li> <li>• P - PO Box Record</li> <li>• R - Rural Route Record</li> <li>• S - Street Record</li> </ul>
delivery_point	A two-digit code that identifies the individual mail delivery location for this address.
check_digit	Check digit is a number that is added to the sum of the other digits in the delivery point barcode to yield a number that is a multiple of ten.
delivery_point_verification	Delivery Point Verification is a set of 6 characters each character position has a different meaning. <i>See <b>Delivery Point Verification Codes Table</b></i>
delivery_point_verification_notes	DPV Notes can contain any combination of the following codes: <ul style="list-style-type: none"> <li>• AA - ZIP4 matched</li> <li>• A1 - ZIP4 did not match</li> <li>• BB - HSA_DPV confirmed entire address</li> <li>• CC - HSA_DPV confirmed address by dropping secondary info</li> <li>• F1 - Military Match</li> <li>• G1 - General Delivery Match.</li> <li>• N1 - HSA_DPV confirmed a highrise or box type address w/o secondary info</li> <li>• M1 - Primary number missing from address</li> <li>• M3 - Could not confirm address</li> <li>• P1 - Box type address missing box number</li> <li>• P3 - Box number invalid</li> <li>• RR - HSC_DPV confirmed address</li> </ul>

FIELD NAME	DESCRIPTION
	<ul style="list-style-type: none"> <li>R1 - HSC_DPV confirmed a highrise or box type address w/o secondary info</li> <li>U1 - Unique ZIP Code Match.</li> </ul>
vacant	Flags the record during validation: <ul style="list-style-type: none"> <li>Y - Vacant</li> <li>N - Occupied</li> </ul>
congressional_district_code	Congressional District Code
area_code	Area Code
latitude	Latitude
longitude	Longitude
time_zone	Time Zone
county_name	County Name
county_fips	County FIPS Code
state_fips	State FIPS Code
barcode	Delivery Point Barcode
lacs	Locatable Address Conversion System indicator; the change of rural-style addresses to city-style addresses.
line_of_travel	Line of Travel Number
ascending_descending	Ascending/Descending Code
move_applied	Contains the Date (YYYYMMDD) the Record was Processed Through NCOA Link
move_type	Contains the Type of Match: <ul style="list-style-type: none"> <li>I - Individual Match</li> <li>F - Family Match</li> <li>B - Business Name Match</li> </ul>
move_date	The date the move was filed with the USPS, in YYYYMM format.
move_distance	The distance between the old dwelling unit and the new dwelling unit. This is measured in miles; with up to 9,999 miles and two decimal points included from centroid zip.
match_flag	Move Status Applied During NCOA Link Processing:

FIELD NAME	DESCRIPTION
	<ul style="list-style-type: none"> <li>• M - Moved</li> <li>• G - PO Box Closed</li> <li>• K - Moved, left no forwarding address</li> <li>• F - Moved to a Foreign Country</li> </ul>
nxi	Status Code: <i>See NXI and ANK Table</i>
ank	Flag Indicating 48 Month move: <i>See NXI and ANK Table</i>
residential_delivery_indicator	Identifies whether a delivery type is classified as Residential or Business: <ul style="list-style-type: none"> <li>• Y - Residential</li> <li>• N - Business</li> </ul>
record_type	Type of Record: <ul style="list-style-type: none"> <li>• A - Active; no move was applied; may or may not be the current address</li> <li>• C - Current; move was applied and this is the current record</li> <li>• H - Historical or previous address</li> </ul>
record_source	Source of Name: <ul style="list-style-type: none"> <li>• CN - Company</li> <li>• PM - Primary Maiden</li> <li>• PN - Primary Name</li> <li>• SN - Secondary Name</li> <li>• SM - Secondary Maiden</li> </ul>
country_code	Country Code
address_line_1	Address Line 1
address_line_2	Address Line 2

## Footnotes

### Delivery Point Verification Codes Table

**NOTE:** If the DPV\_ field is empty, the Address was not submitted for confirmation. The record must first pass CASS certification to be passed to DPV. Any records which fail the preliminary CASS validation will not have a code in the DPV\_ field.

POSITION	DESCRIPTION	CODES
Position 1 = DPV Confirmation Indicator	<p>The DPV Confirmation Indicator is the primary method used by the USPS to determine whether an address was considered deliverable or undeliverable.</p> <p><i>Field contains the results of the call to the DPV Confirmation Hash Table: dph.hsa</i></p>	<ul style="list-style-type: none"> <li>• Y - Address was DPV confirmed for both primary and (if present) secondary numbers.</li> <li>• D - Address was DPV confirmed for the primary number only, and Secondary number information was missing.</li> <li>• S - Address was DPV confirmed for the primary number only, and Secondary number information was present but unconfirmed.</li> <li>• N - Both Primary and (if present) Secondary number information failed to DPV Confirm.</li> <li>• Blank - Address not presented to hash table.</li> </ul>
Position 2 = DPV CMRA Indicator	<p>* CMRA Indicates a private business that acts as a mail-receiving agent for specific clients.</p> <p><i>Field contains the results of the call to the DPV CMRA Hash Table: dph.hsc</i></p>	<ul style="list-style-type: none"> <li>• Y = Address was found in CMRA table.</li> <li>• N = Address was not found in CMRA table.</li> <li>• Blank = Address not presented to hash table.</li> </ul>
Position 3 = DPV False Positive Indicator	<p>The False Positive table flags the False Positive addresses. This is a flag to determine whether a mailing list is being generated or created during validation. Creating a mailing list through DPV certification is not allowed by the USPS.</p> <p><i>Field contains the results of the call to the DPV False Positive Hash Table: dph.hsf</i></p>	<ul style="list-style-type: none"> <li>• Y = Address was found in False Positive table.</li> <li>• N = Address was not found in False Positive table.</li> <li>• Blank = Address not presented to hash table.</li> </ul>
Position 4 = Vacant Indicator (New)	<p>A delivery point was active in the past, but is currently vacant (in most cases, unoccupied over 90 days) and not receiving delivery.</p> <p><i>Field contains the results of the call to the DPV VACANT Hash Table: dph.hsv</i></p>	<ul style="list-style-type: none"> <li>• Y = Address was found in VACANT table.</li> <li>• N = Address was not found in VACANT table.</li> <li>• Blank = Address not presented to hash table.</li> </ul>
Position 5 = DSF2 No Stats Indicator (New)	<p>Indicates the address is not receiving delivery, and the address is not counted as a possible delivery. These addresses are not receiving delivery because A) delivery has not been established; B) customer receives mail as a part of a drop; or C) the address is no longer a</p>	<ul style="list-style-type: none"> <li>• Y = Address was found in NOSTATS table.</li> <li>• N = Address was not found in NOSTATS table.</li> <li>• Blank = Address not presented to hash table.</li> </ul>

POSITION	DESCRIPTION	CODES
	possible delivery because the carrier destroys or returns all of the mail.  <i>Field contains the results of the call to the DPV NOSTATS Hash Table: dph.hsx</i>	
Position 6 = PBSA Indicator - P.O. Box Street-Style Address (New)	Identifies which Street addresses in a database are actually Post Office Box physical locations	<ul style="list-style-type: none"> <li>• Y = Address is actually a PO Box physical address</li> <li>• N = Address was not found in PBSA table.</li> <li>• Blank = Address not presented to hash table.</li> </ul>

### NXI and ANK Table

RETURNED CODE	CAPTION	DESCRIPTION
A	Full Address Match	Matched record and a new address has been provided (NCOALink 18Month Service code only).
00	No Matching Address - No new address provided	No Match (NCOALink 18-month Service code only)
01	New address outside US - no new address provided	Found COA: Foreign Move - The input record matched to a business, individual or family type master file record but the new address was outside USPS delivery area.
02	No forwarding address	Found COA: Moved Left No Address - The input record matched to a business, individual or family type master file record and the new address was not provided to USPS.
03	Closed PO box - No new address provided	Found COA: Box Closed No - The Input record matched to a business, individual or family type master file record which contains an old address of PO BOX that has been closed without a forwarding address provided.
04	Address 2 Missing for family move - No new address provided	Cannot match COA: Street Address with Secondary - The input record matched to a family record type on master file with an old address that contained secondary information. The input record does not contain secondary information. This address match situation requires individual name matching logic to obtain a match and individual names do not match.
05	Too many matches - No new address provided	Found COA: New 11-digit DPBC (Delivery Point Barcode) is Ambiguous - The input record matched to a business, individual or family type master file record. The new address on the master file record could not be converted to a deliverable address because the DPBC represents more than one delivery point.
06	Partial Match - No new address provided	Cannot Match COA: Conflicting Directions: Middle Name Related -There is more than one COA (individual or family type) record for the match algorithm and the middle

RETURNED CODE	CAPTION	DESCRIPTION
		names or initials on the COAs are different. Therefore, a single match result could not be determined.
07	Partial Match - No new address provided	Cannot Match COA: Conflicting Directions: Gender Related -There is more than one COA (individual or family type) record for the match algorithm and the genders of the names on the COAs are different. Therefore, a single match result could not be determined.
08	Too many possible matches - No new address provided	Cannot Match COA: Other Conflicting Instructions - The input record matched to two master file (business, individual or family type) records. The two records in the master file were compared and due to differences in the new addresses, a match could not be made.
09	Family move address does not match individual name - No new address provided	Cannot Match COA: High-rise Default - The input record matched to a family record on the master file from a High- rise address ZIP+4 coded to the building default. This address match situation requires individual name matching logic to obtain a match and individual names do not match.
10	Family move address does not match individual name	Cannot Match COA: Rural Default - The input record matched to a family record on the master file from a Rural Route or Highway Contract Route address ZIP+4 coded to the route default. This address situation requires individual name matching logic to obtain a match and individual names do not match.
11	Only last name was matched - No new address provided	Cannot Match COA: Individual Match: Insufficient COA Name for Match - There is a master file (individual or family type) record with the same surname and address but there is insufficient name information on the master file record to produce a match using individual matching logic.
12	Middle name does not match - No new address provided	Cannot Match COA: Middle Name Test Failed - The input record matched to an individual or family record on the master file with the same address and surname. However, a match cannot be made because the input name contains a conflict with the middle name or initials on the master file record.
13	Gender does not match - No new address provided	Cannot Match COA: Gender Test Failed - The input record matched to a master file (individual or family type) record. A match cannot be made because the gender of the name on the input record conflicts with the gender of the name on the master file record.
14	Undeliverable Address - No new address provided	Found COA: New Address Would Not Convert at Run Time - The input record matched to a master file (business, individual or family type) record. The new address could not be converted to a deliverable address.
15	First name is missing - No new address provided	Cannot Match COA: Individual Name Insufficient - There is a master file record with the same address and surname. A match cannot be made because the input record does not contain a first name or contains initials only.
16	No matching apt number - No new address provided	Cannot Match COA: Secondary Number Discrepancy - The input record matched to a street level individual or family type record. However, a match is prohibited based on 1 of the following reasons: 1) There is conflicting secondary information on the input and master file record; 2) the input record contained secondary information and matched to a family record that does not contain secondary information. In item 2, this address

RETURNED CODE	CAPTION	DESCRIPTION
		match situation requires individual name matching logic to obtain a COA match and individual names do not match.
17	First name doesn't match - No new address provided	Cannot Match COA: Other Insufficient Name - The input record matched to an individual or family master file record. The input name is different or not sufficient enough to produce a match.
18	Family move with General address - No new address provided	Cannot Match COA: General Delivery - The input record matched to a family record on the master file from a General Delivery address. This address situation requires individual name matching logic to obtain a match and individual names do not match.
19	No Zip Code found - No new address provided	Found COA: New Address not ZIP+4 coded - There is a change of address on file but the new address cannot be ZIP+4 coded and therefore there is no 11 -digit DPBC to store or return.
20	Cannot determine single address - No new address provided	Cannot Match COA: Conflicting Directions after re-chaining - Multiple master file records were potential matches for the input record. The master file records contained different new addresses and a single match result could not be determined.
66	Deleted address with no forwarding address.	Daily Delete - The input record matched to a business, individual or family type master file record with an old address that is present in the daily delete file. The presence of an address in the daily delete file means that a COA with this address is pending deletion from the master file and that no mail may be forwarded from this address.
91	Matched; secondary address may be missing	Found COA: Secondary Number dropped from COA. The input record matched to a master file record. The master file record had a secondary number and the input address did not. A new address was provided.
92	Matched; secondary address may be incorrect	Found COA: Secondary Number Dropped from input address. The input record matched to a master file record, but the input address had a secondary number and the master file record did not. The record is a ZIP + 4® street level match. A new address was provided.
77	<b>ANK</b> - Address Not Known	The record was found in the 48 month ANKLink service. You should suppress these records from your database or flag these records for deletion and not mail to them.

## DPV Error and Warning Codes Table

ERROR AND WARNING GROUP	CAPTION	DESCRIPTION
1	State Not Found	1.1 State not found
2	City Not Found	2.1 City not found



ERROR AND WARNING GROUP	CAPTION	DESCRIPTION
3	Street Not Found	3.1 Street not found
4	Address Not Found	4.1 Address not found
5	Can't Assign +4	5.1 Incomputable +4 range 5.2 +4 unavailable
6	Multiple Matches	6.1 Multiple streets match 6.2 Multiple addresses match 6.3 Cardinal Rule multiple match
7	Time/Space Error	7.1 Time ran out 7.2 Output too long
8	Company Warning	8.1 Company phonetic match used 8.2 First company match used
9	State Corrected	9.1 State determined from city 9.2 State determined from ZIP
10	City Corrected	10.1 City phonetic match used 10.2 City determined from ZIP 10.3 Acceptable city name used
11	Street Corrected	11.0 Address component Chg/Del/Add 11.1 Street phonetic match used 11.2 Pre-direction dropped 11.3 Pre-direction added 11.4 Suffix dropped 11.5 Suffix added 11.6 Post direction dropped 11.7 Post direction added 11.8 Pre-direction standardized 11.9 Street standardized 11.10 Suffix standardized 11.11 Post direction standardized 11.12 Street missing 11.13 Alternate address used 11.14 Address Standardized 11.15 Dual address - Used PO Box 11.16 Dual address - Used Non-PO Box 11.17 Street Alias match - Better delivery address exists
12	Unit/Box Warning	12.1 Unit standardized 12.2 Unit missing 12.3 Unit not found 12.4 Unit unverified 12.5 Rural box not found

ERROR AND WARNING GROUP	CAPTION	DESCRIPTION
13	Leftovers Found	13.1 Leftovers found
14	ZIP/Route Warning	14.1 No ZIP Code Available 14.2 Incorrect ZIP Code was changed to correct ZIP 14.3 +4 changed 14.4 Route changed 14.5 +4 added 14.6 Route added 14.7 ZIP assigned for Multi-matched address 14.8 Unique ZIP match 14.9 Small town default match
15	Address Type Warning	15.0 ZIP Code Changed 15.1 Highrise Default 15.2 Highrise Exact 15.3 Rural Route Default 15.4 Rural Route Exact 15.5 Early Warning System match. 15.6 LACSLink Conversion Match 15.7 SuiteLink Match - Suite Returned 15.8 SuiteLink Match - No Suite Returned
A1-A10		This indicates which Address block was used to code the record