API documentation

Adrescheck Autocomplete v1

Summary

The ACI API provides a method to quickly return possible addresses based on partial address data. Next, it allows you to validate a postal address. Both for all countries of the world. A successful query will return a list of matching addresses.

1. Search method

HTTP base url

GET   https://api.postnl.nl/v1/address/autocomplete/

The endpoint above requires an **apikey** in the header or as query parameter. The apikey should of course be the apikey provided by PostNL.

Autocomplete methods and input (query) parameters

GET   https://api.postnl.nl/v1/address/autocomplete/search

A basic autocomplete call looks like:

https://api.postnl.nl/v1/address/autocomplete/search?uuid=38ee93b3-4ebb-4c6f-b810-cf32d5af2535&countryIso=GB&q=11%20anneter

Fieldname	Mandatory/optional	Format	Example
countryIso	Mandatory	String [2] according to ISO 3166-1 'alpha-2', not 'numeric-3'.	`GB`
Uuid	Mandatory	The session unique identifier, either self-generated or requested (see below for request uuid).	`38ee93b3-4ebb-4c6f-b810-cf32d5af2535`
q	Mandatory	The text to actually query for. Could be empty when used in combination with the field postalCode	`11 anneter`
Apikey	Mandatory in header	String	The apikey provided by PostNL
postalCode	Optional	String	`SW17 7HJ`

cityName	Optional	String	`Cookstown`
Field	Optional	String – will only return values for this specific field. Possible values are [postalCode, cityName, address1, addressLine]	
excludePO	Optional (default: False)	Boolean – whether to filter out postal boxes or not	

Example search requests

- https://api.postnl.nl/v1/address/autocomplete/search?uuid=38ee93b3-4ebb-4c6f-b810-cf32d5af2535&countryIso=GB&q=&postalcode=SW17%207HJ
  This will return all the addresses with postal code SW17 7HJ
- https://api.postnl.nl/v1/address/autocomplete/search?uuid=38ee93b3-4ebb-4c6f-b810-cf32d5af2535&countryIso=GB&q=137&postalcode=SW17%207HJ
  This will return all the addresses with postal code SW17 7HJ and where '137' is part of the address. So all the addresses with house number 137
- https://api.postnl.nl/v1/address/autocomplete/search?uuid=38ee93b3-4ebb-4c6f-b810-cf32d5af2535&countryIso=BE&postalCode=3300&q=Getestraat%2025
- https://api.postnl.nl/v1/address/autocomplete/search?uuid=38ee93b3-4ebb-4c6f-b810-cf32d5af2535&countryIso=BE&postalCode=3300&q=&field=cityName
  This will return all the cities in Belgium with postalCode 3300.

Example result

For more explanation of the fields, see 'Output fields'.

[{ "address1": "137 Trinity Road", "address2": "London, SW17 7HJ", "addressLine": "137 Trinity Road, LONDON, SW17 7HJ", "buildingName": "", "cityName": "London", "country": "", "countryIso": "gb", "floor": "", "formattedAddress": ["137 Trinity Road", "LONDON", "SW17 7HJ", "United Kingdom"], "houseNumber": 137, "houseNumberAddition": "", "htmlText": "137 Trinity Road, LONDON, SW17 7HJ", "id": "", "organization": "", "postalCode": "SW17 7HJ", "region": "Wandsworth", "streetName": "Trinity Road", "type": 3},
{ "address1": "Flat 1, 137 Trinity Road", "address2": "London, SW17 7HJ", "addressLine": "Flat 1, 137 Trinity Road, LONDON, SW17 7HJ", "buildingName": "", "cityName": "London", "country": "", "countryIso": "gb", "floor": "Flat 1", "formattedAddress": ["Flat 1", "137 Trinity Road", "LONDON", "SW17 7HJ", "United Kingdom"], "houseNumber": 137, "houseNumberAddition": "", "htmlText": "Flat 1, 137 Trinity Road, LONDON, SW17 7HJ", "id": "", "organization": "", "postalCode": "SW17 7HJ", "region": "WandsworthFlat 1", "streetName": "Trinity Road", "type": 3},
{ "address1": "Flat 2, 137 Trinity Road", "address2": "London, SW17 7HJ", "addressLine": "Flat 2, 137 Trinity Road, LONDON, SW17 7HJ", "buildingName": "", "cityName": "London", "country": "", "countryIso": "gb", "floor": "Flat 2", "formattedAddress": ["Flat 2", "137 Trinity Road", "LONDON", "SW17 7HJ",

"United Kingdom"], "houseNumber": 137, "houseNumberAddition": "", "htmlText": "Flat 2, 137 Trinity Road, LONDON, SW17 7HJ", "id": "", "organization": "", "postalCode": "SW17 7HJ", "region": "WandsworthFlat 2", "streetName": "Trinity Road", "type": 3}, …]

Using the uuid

The usage of a unique uuid is used to combine multiple calls within the same session. Only unique session are deduced from your allowed 'credits'. So multiple calls to **search** with the same uuid is seen as one call. A uuid can only be used for one day and for one country.

The uuid can be self-generated or can be retrieved by calling the following endpoint:

GET   https://api.postnl.nl/v1/address/autocomplete/token

An example result is: {"uuid": "a7fb8c85-161a-420f-ad31-2b66c56a92a0"}

Fieldname	Mandatory/optional	Format	Example
Apikey	Mandatory in header	String	The apikey provided by PostNL
countryIso	Mandatory in query	String (2)	DE – the country for which to get the token

Output for search

The search endpoint returns a list of fields. Most fields will always be returned, sometimes extra fields will be returned, depending on the country and available details.

Fieldname	Description of attribute	Format [length]	Example
formattedAddress	The full address according to local/national formatting standards	Array of strings, dependent on country specific formatting standards	`["11 Anneter Road", "COOKSTOWN", "BT80 0HZ", "UNITED KINGDOM"]`
addressLine	The full address, separated by ','	String	`11 Anneter Road`
address1	The first part of the address, if the address needs to be presented on two lines. Contains the streetName, and optional the organization or other detailed address parts	String	

address2	The second part of the address, if the address needs to be presented on two lines. Contains the postalCode, cityName and countryName	String	COOKSTOWN, BT80 0HZ, UNITED KINGDOM
streetName	Street name of the address	String	Anneter Road
htmlText	The html-friendly representation of the address		
houseNumber	House number of the address	Number	11
houseNumberAddition	House number addition of the address	String	
postalCode	Postal code of the address	String	BT80 0HZ
cityName	City of the address	String	Cookstown
countryName	Country of the address	String	
countryIso	ISO 3166-1 alpha-2 code of the country of the address	String [2]	GB
organization	Name of organization or company, when located on the address	String	
poBox	Whether the address is a postal box or not	Boolean	false
buildingName	Name of the building	String	
floor	Floor that the address is located on	String	

NOTE: future improvements of the API can add output fields to give more information about addresses.

2. Practical examples

Below are three practical examples on how to call the api for specific cases:

- Filters on postalCode
- Filters on postalCode ánd cityName
- How to get the same results as the v4

2.1. Practical example: filters on postalCode

Let's have a further look on how you can use AutoComplete to add a filter on postalCodes. So you're able to build the functionality visualized in the screenshot.

Step 1: autocomplete on postalCode only

To search for a list of postalcodes, you can use the following endpoint:

```
/search?uuid=<token>&countryIso=DE&q=2964&field=postalcode
```

The example response is (you get a list of more fields, but the postalCode is what you need)

```
[{…,  "postalCode": "29640",…},{…,"postalCode":"29641",}…]
```
In some cases it's even handier to use the htmlText directly, because the API will fill this field with the most-likely value you want to show to the customer.
```
[{…,  "htmlText": "29640",…},{…,"htmlText":"29641",}…]
```

Step 2: use the value of the postalCode to filter the addresses

To search for addresses with the selected postalCode 29643 (for example), you can use the same search-endpoint.

This will ask the API to return (complete) addressLines where the postalCode has value '29643' and where the addressline contains 'Auf dem'

```
/search?uuid=<token>&countryIso=DE&q=auf+dem+&field=addressline&postalcode=29643
```

In the result, you can (again) use the htmlText to fill the dropdown-box. You can also use the requested field addressLine (the values of htmlText and addressLine are the same).

2.2 Practical example: filters on postalCode and cityName

Step 1 – filter cityNames by postalCodes

Let's have a look where you also want a filter on cityName. In this additional example, we want to use the value of postalCode to filter on cityNames.

```
/search?uuid=<token>&countryIso=DE&q=&field=cityname&postalcode=29643
```

From the response, it's most convenient to use htmlText again. The value of cityName is identical to the value of htmlText, because you requested the cityNames.

Step 2 – filter postalCode by CityName

This UX should also support the case where the user starts by typing the cityName and wants to have a list of available postalCodes. To get a list of cityNames that contain 'Neuenkir', you can use the following endpoint:

```
/search?uuid=<token>&countryIso=DE&q=Neuenkir&field=cityname
```

The value of cityName can be used in the list of postalCodes by calling the following endpoint:

```
/search?uuid=<token>&countryIso=DE&q=&field=postalcode&cityname=Neuenkirchen
```

Step 3 – get list of addressLines based on a filter on postalCode ánd cityName:

```
/search?uuid=<token>&countryIso=DE&q=bi&field=addressline&postalcode=49586&cityname=Neuenkirchen
```

2.3. Practical Example – same results as ACIv4

The latest versions of our addresscheck-Nederland and addresscheck-international API's use the queryParameters as this new Autocomplete.

Netherlands

To search for an address by postalCode, houseNumber and houseNumberAddition, you can call the /search endpoint:

```
/search?countryIso=NL&postalCode=1231AA&houseNumber=1
```

If there are more houseNumberAdditions on this address, all will be return (for this example: `Rembrandtlaan 1`, but also `Rembrandlaan 1 A`.

```
/search?countryIso=NL&postalCode=5038GX&houseNumber=14&houseNumberAddition=7
```

Will return `Dionysiusstraat 14 07, 5038GX TILBURG`

International

The same queryParameters like cityName, postalCode, streetName, addressLine can be used. queryParameters like flat, stairs, floor and door won't work.

3. Test addresses

To proper test your implementation, we advise to (at least) use the following addresses. Off course, if you only have NL, you don't need to test the other countries. Or if you only have Netherlands and Belgium, Luxembourg, you don't have to test countries like FR and GB.

C	Input (q=)	Full address	Test remarks
NL	2521CA 3	Waldorpstraat 3 2521CA 'S-GRAVENHAGE NETHERLANDS	Basic test to see if all the address fields are working
NL	2521CA 11 d	Waldorpstraat 11 D 2521CA 'S-GRAVENHAGE NETHERLANDS	Test to see if house number additions are working
BE	stalingradlaan 35 1	Stalingradlaan 35 1 1000 Brussel België	First test to see if foreign country also works. And test if you see both French ánd Dutch translation of the street
BE	Verlorenbroodstraat 7	Verlorenbroodstraat 7 9820 Merelbeke (Merelbeke-Melle) België	In Belgium, sub cities can have detailed address lines. Make sure you use the formattedAddressLines to markup the address. The official cityName = Merelbeke-Melle. The subCityName = Merelbeke
FR	75006 1 batiment a	BATIMENT A 1 RUE GOZLIN 6E ARRONDISSEMENT 75006 PARIS France	Test with a building name. The subCityName = 6E ARRONDISSEMENT. Also test the housenumber is before the streetname.
FR	83630 sainte anne	VILLA MOUN PANTAI CHEMIN SAINTE ANNE 83630 BAUDUEN France	Test with an address with only a building (Villa Moun Pantai) and no housenumber.
FR	83630 HLM SAINTE ANNE APPARTEMENT	HLM SAINTE ANNE APPARTEMENT N 6 RUE SAINTE ANNE 83630 BAUDUEN France	Same test situation: only a building, no housenumber. But also a (very) long buildingname.

PL	44335 55	Ulica 55 Pułku Piechoty 44-335 JASTRZĘBIE-ZDRÓJ Poland	Test with extended iso characters
GB	CH49EP Boxwell	Boxwell Chartered Accountants Bretton House Bell Meadow Business Park Park Lane Pulford CHESTER CH4 9EP	Test an address without a housenumber, but with both a company and a building.

4. Possible HTTP status codes

HTTP status code	Explanation of the response
200	JSON response with requested data. If no address if found, an empty list is returned.
400	Error on customer-side. E.g. when not enough parameters are given.
401	Authorization error.
403	The request contains an address with a country not supported by this entry point.
500	Error on PostNL side.