

BeSt-Address Web API User Guide

FPS BOSA DG DIS <servicedesk.DTO@bosa.fgov.be>

Version 1.9.4

Table of Contents

1.	Introduction	1
	1.1. Description	1
	1.2. Audience	1
2.	Using the JSON Web API	2
	2.1. Intended usage	2
	2.2. OpenAPI definition	2
	2.3. General information.	2
	2.3.1. Authorization	2
	2.3.2. Belgov-Trace-Id header	3
	2.3.3. Pagination	3
	2.3.4. BeST Identifiers	3
	2.3.5. Embedding of entities in JSON responses	4
	2.3.6. Geographical coordinates	4
	2.4. Search for addresses	5
	2.4.1. Getting a single address by BeST-ID	5
	2.4.2. Searching for one or more addresses.	9
	2.5. Search for streets	. 13
	2.5.1. Getting a single street by BeST-ID	. 13
	2.5.2. Searching for one or more streets.	. 14
	2.6. Search for municipalities	. 17
	2.6.1. Getting a single municipality by BeST-ID	. 17
	2.6.2. Searching for one or more municipalities	. 18
	2.7. Search for partOfMunicipalities	. 21
	2.7.1. Getting a single part of municipality by BeST-ID	. 21
	2.7.2. Searching for one or more part of municipalities	. 22
	2.8. Search for postalInfos	. 24
	2.8.1. Getting a single postal info by BeST-ID	. 24
	2.8.2. Searching for postal infos	. 24
	2.9. Additional info	. 27
A]	ppendix A: Address data license	. 28
	A 1 Creative Commons Attribution 4.0	28



1. Introduction

1.1. Description

This guide describes the BeSt-Address Web API.

The Belgian Streets and Addresses project (BeSt) combines the address data from the 3 Regions into one single database.

The service is developed and maintained by the Federal Public Service BOSA, and is provided "as-is", without warranty of any kind.

More info about this project can be found on the BOSA page bosa.belgium.be/nl/services/best-address-services

1.2. Audience

This guide is intended for application developers. Basic knowledge of REST services and JSON is assumed.



2. Using the JSON Web API

2.1. Intended usage

The Web API needs to be integrated into a client application.

It does not provide a user interface, maps or other visualizations. It is not well-suited for bulk mapping of large numbers of incorrectly written addresses.

2.2. OpenAPI definition

The OpenAPI yaml file is available on .../belgianAddress/v2/doc/openapi.yaml

2.3. General information

2.3.1. Authorization

Depending on the endpoint being used, authorization may or may not be required.

Public services can obtain OAuth credentials for free via the service integrator network. With these credentials, a client application can obtain an access token valid for one hour, after which a new token must be obtained.

In the near future, BOSA will provide the same service to companies and other organizations (though rate limits will apply, and throttling without prior warning may happen at any time)

It is possible to do this manually by e.g. using the command line application curl, but many web application frameworks support OAuth out-of-the-box or via a plug-in.

Example 1. Manual request to obtain the OAuth token

```
$ curl -X POST -s -d
'grant_type=client_credentials&client_id=foo&client_secret=bar'
https://public.fedservices.be/api/oauth2/token

{"access_token":"AbCd1234","token_type":"Bearer","expires_in":3600,"scope
":"BOSA"}
```



2.3.2. Belgov-Trace-Id header

On the BOSA application network, every API call must have a trace ID for debugging and auditing purposes.

Client applications may freely choose the exact value of this trace ID, but a non-empty value must be present in the BelGov-Trace-Id HTTP request header.

Example 2. Manual request with OAuth Token and Trace ID

```
$ curl -H "Accept: application/json" -H "Authorization: Bearer AbCd1234"
-H "BelGov-Trace-Id: testid-123"
"https://public.int.fedservices.be/api/best/v1/belgianAddress/v2/municipa lities"
```

2.3.3. Pagination

If the number of results is fairly large, the results will be paginated and client applications will need to send additional requests to obtain all the results. The total number of results and total number of pages can be found in the total and totalPages JSON fields of the response, as well as the link to the next and previous page (if any).

2.3.4. BeST Identifiers

A full BeST ID consists of a region namespace, an object identifier and a version identifier.

The object identifiers of addresses and streets are only guaranteed to be unique within the Region, not within the whole of Belgium.

I.e. there may be different addresses and streets with the same objectidentifier (with different namespaces).

It is up to the Regions to decide how the version identifiers look like: Brussels and Wallonia simply use an integer, while Flanders uses a timestamp.

URL encoding of identifiers



Since identifiers are basically URLs, they must be percent-encoded when being used as a parameter in the API.

I.e. slashes and and other special characters must be replaced with a %-value.



2.3.5. Embedding of entities in JSON responses

Addresses contain references to streets, municipalities, postal info and (for the Walloon Region) part of municipalities.

Streets contain a reference to a municipality.

By default, these references are directly embedded in the JSON structure: each JSON address object will contain JSON objects with street name, municipality name etc.

Using the embed parameter, it is possible to turn off this behavior, or to include these entities in a separate embedded JSON object. This greatly reduces the duplication of data when obtaining a list of addresses in the same area, at the expense of getting a slightly more complex JSON structure. See also www.belgif.be/specification/rest/api-guide/# embedding

2.3.6. Geographical coordinates

The Regions provide the geographical coordinates in Lambert 72 (only). The BeSt Web API also provides these coordinates in Lambert 2008 and WGS84 (GPS).



2.4. Search for addresses

2.4.1. Getting a single address by BeST-ID

This will return a single address in JSON, or an HTTP 404 Not Found error when no address was found.

Parameter	Description
embed	Directly or indirectly embed entities Values: true (default), false or (a combiantion of) streets, municipalities, postalInfos, partOfMunicipalities

Example 3. A single address, directly embed streets etc

```
.../belgianAddress/v2/addresses/https%3A%2F%2Fdatabrussels.be%2Fid%2Faddress%2F210591%2F7
```

```
"self":
"/api/best/v1/belgianAddress/v2/addresses/https%3A%2F%2Fdatabrussels.be%2
Fid%2Faddress%2F210591%2F7",
  "id": "https://databrussels.be/id/address/210591/7",
  "bestidentifier": {
    "nameSpace": "https://databrussels.be/id/address",
   "objectIdentifier": "210591",
    "versionIdentifier": "7"
 },
 "hasStreetName": {
    "id": "https://databrussels.be/id/streetname/4526/2",
    "href":
"/api/best/v1/belgianAddress/v2/streets/https%3A%2F%2Fdatabrussels.be%2Fi
d%2Fstreetname%2F4526%2F2",
    "name": {
     "nl": "Simon Bolivarlaan",
     "fr": "Boulevard Simon Bolivar"
   },
   "streetNameType": "streetname"
 "hasMunicipality": {
    "id": "https://databrussels.be/id/municipality/21004/17",
"/api/best/v1/belgianAddress/v2/municipalities/https%3A%2F%2Fdatabrussels
.be%2Fid%2Fmunicipality%2F21004%2F17",
    "nisCode": "21004",
```



```
"name": {
      "nl": "Brussel",
      "fr": "Bruxelles"
 },
  "hasPostalInfo": {
    "id": "https://databrussels.be/id/postalinfo/1000/3",
    "href":
"/api/best/v1/belgianAddress/v2/postalInfos/https%3A%2F%2Fdatabrussels.be
%2Fid%2Fpostalinfo%2F1000%2F3",
    "postCode": "1000",
    "name": {
      "nl": "Brussel (Centrum)",
      "fr": "Bruxelles (Centre)"
 },
  "hasPartOfMunicipality": {
 },
  "houseNumber": "30",
  "status": "current",
  "validFrom": "2024-09-19T21:03:05",
  "beginLifeSpanVersion": "2024-09-20T03:06:44",
  "addressPosition": {
    "lambert72": {
      "x": 149110.91,
      "v": 172259.749
    },
    "lambert08": {
      "x": 649110.363,
      "v": 672260.152
    },
    "wgs84": {
      "lat": 50.860725735,
      "long": 4.356124579
    "positionGeometryMethod": "assignedByAdministrator",
    "positionSpecification": "stand"
 },
  "isOfficiallyAssigned": true
}
```



Example 4. A single address, embed streets etc in a separate 'embedded' object

.../belgianAddress/v2/addresses/https%3A%2F%2Fdatabrussels.be%2Fid%2Faddress%2F210591%2F7?embed=streets&embed=municipalities&embed=postalInfos

```
"/api/best/v1/belgianAddress/v2/addresses/https%3A%2F%2Fdatabrussels.be%2
Fid%2Faddress%2F210591%2F7?embed=streets&embed=municipalities&embed=posta
lInfos",
  "id": "https://databrussels.be/id/address/210591/7",
  "bestidentifier": {
    "nameSpace": "https://databrussels.be/id/address",
    "objectIdentifier": "210591",
    "versionIdentifier": "7"
 },
  "hasStreetName": {
    "id": "https://databrussels.be/id/streetname/4526/2",
"/api/best/v1/belgianAddress/v2/streets/https%3A%2F%2Fdatabrussels.be%2Fi
d%2Fstreetname%2F4526%2F2"
  "hasMunicipality": {
    "id": "https://databrussels.be/id/municipality/21004/17",
"/api/best/v1/belgianAddress/v2/municipalities/https%3A%2F%2Fdatabrussels
.be%2Fid%2Fmunicipality%2F21004%2F17"
  "hasPostalInfo": {
    "id": "https://databrussels.be/id/postalinfo/1000/3",
"/api/best/v1/belgianAddress/v2/postalInfos/https%3A%2F%2Fdatabrussels.be
%2Fid%2Fpostalinfo%2F1000%2F3"
 },
  "hasPartOfMunicipality": {
 },
  "houseNumber": "30",
  "status": "current",
  "validFrom": "2024-09-19T21:03:05",
  "beginLifeSpanVersion": "2024-09-20T03:06:44",
  "addressPosition": {
    "lambert72": {
      "x": 149110.91,
     "y": 172259.749
    },
```



```
"lambert08": {
      "x": 649110.363,
      "v": 672260.152
    },
    "wgs84": {
     "lat": 50.860725735,
     "long": 4.356124579
    },
    "positionGeometryMethod": "assignedByAdministrator",
    "positionSpecification": "stand"
 },
  "isOfficiallyAssigned": true,
  "embedded": {
"/api/best/v1/belgianAddress/v2/streets/https%3A%2F%2Fdatabrussels.be%2Fi
d%2Fstreetname%2F4526%2F2": {
      "id": "https://databrussels.be/id/streetname/4526/2",
"/api/best/v1/belgianAddress/v2/streets/https%3A%2F%2Fdatabrussels.be%2Fi
d%2Fstreetname%2F4526%2F2",
      "name": {
        "nl": "Simon Bolivarlaan",
        "fr": "Boulevard Simon Bolivar"
     },
      "streetNameType": "streetname"
   },
"/api/best/v1/belgianAddress/v2/municipalities/https%3A%2F%2Fdatabrussels
.be%2Fid%2Fmunicipality%2F21004%2F17": {
      "id": "https://databrussels.be/id/municipality/21004/17",
      "href":
"/api/best/v1/belgianAddress/v2/municipalities/https%3A%2F%2Fdatabrussels
.be%2Fid%2Fmunicipality%2F21004%2F17",
      "nisCode": "21004",
      "name": {
        "nl": "Brussel",
        "fr": "Bruxelles"
     }
    },
"/api/best/v1/belgianAddress/v2/postalInfos/https%3A%2F%2Fdatabrussels.be
%2Fid%2Fpostalinfo%2F1000%2F3": {
      "id": "https://databrussels.be/id/postalinfo/1000/3",
"/api/best/v1/belgianAddress/v2/postalInfos/https%3A%2F%2Fdatabrussels.be
%2Fid%2Fpostalinfo%2F1000%2F3",
      "postCode": "1000",
      "name": {
```



```
"nl": "Brussel (Centrum)",
        "fr": "Bruxelles (Centre)"
     }
}
}
```

2.4.2. Searching for one or more addresses

This will return a list of zero or more addresses (i.e. an empty list will *not* produce an HTTP 404).

Parameter	Description
partialId	Partial BeST address ID Namespace and objectIdentifier are required, but the optional versionIdentifier will be ignored
nisCode	NIS code of the municipality
municipalityId	URL encoded BeST-ID of the municipality
municipalityName	Full name of the municipality (URL-encoded, any language, case-insensitive, accents are ignored). Use '*' before/after the string to perform a substring match.
postCode	Postal code
postalInfoId	URL encoded BeST-ID of the postalInfo
streetId	URL encoded BeST-ID of the street
streetName	Full name of the street (any language, accents are ignored, spaces must be encoded). Use '*' before/after the string to perform a substring match.
houseNumber	House number
boxNumber	Box number
firstOfBuilding	Return only first address of a building (house or first boxnumber in apartment building) Value: true or false (default)
xLong	X coordinate (in WGS84/GPS, Lambert72 or Lambert2008)
yLat	Y coordinate (in WGS84/GPS or Lambert72 or Lambert2008)
crs	Coordinate reference system Values : wgs84 (default), lam72, lam08
radius	Maximum distance (in meters) Default value : 100



Parameter	Description
status	Status of the address Values : any, current (default), proposed, reserved, retired, rejected
embed	Directly or indirectly embed entities Values: true (default), false or streets, municipalities, postalInfos, partOfMunicipalities
page	Page number (on paginated results, starting from 1)

Example 5. Current addresses in Liège (URL-encoded or without accent), embed streets etc directly

```
.../belgianAddress/v2/addresses?municipalityName=Li%C3%A8ge
.../belgianAddress/v2/addresses?municipalityName=liege
"/api/best/v1/belgianAddress/v2/addresses?municipalityName=liege&page=1",
  "items": [
      "id": "geodata.wallonie.be/id/Address/1102768/1",
      "bestidentifier": {
        "nameSpace": "geodata.wallonie.be/id/Address",
        "objectIdentifier": "1102768",
        "versionIdentifier": "1"
      },
      "hasStreetName": {
        "id": "geodata.wallonie.be/id/Streetname/7729687/2",
        "href":
"/api/best/v1/belgianAddress/v2/streets/geodata.wallonie.be%2Fid%2FStreet
name%2F7729687%2F2",
        "name": {
          "fr": "Boulevard Ernest Solvay"
        "streetNameType": "streetname"
      },
. . .
      "houseNumber": "79",
      "status": "current",
      "validFrom": "2016-01-01T00:00:00",
      "beginLifeSpanVersion": "2018-09-17T22:04:09",
      "addressPosition": {
        "lambert72": {
          "x": 233578.954999998,
          "y": 146718.168000001
```



```
},
        "lambert08": {
          "x": 733580.818,
          "y": 646728.718
        "wgs84": {
          "lat": 50.625129197,
          "long": 5.549998188
        "positionGeometryMethod": "assignedByAdministrator",
        "positionSpecification": "plot"
      },
      "isOfficiallyAssigned": true
    }
  ],
  "next":
"/api/best/v1/belgianAddress/v2/addresses?municipalityName=liege&page=2",
  "totalPages": 743,
 "pageSize": 200,
  "total": 148518,
  "first":
"/api/best/v1/belgianAddress/v2/addresses?municipalityName=liege&page=1",
"/api/best/v1/belgianAddress/v2/addresses?municipalityName=liege&page=743
}
```

Example 6. Current addresses with NIS Code 23027, second page

```
.../belgianAddress/v2/addresses?nisCode=23027&page=2
```

Example 7. Current addresses with NIS Code 23027 and street names starting with Octave

```
.../belgianAddress/v2/addresses?nisCode=23027&streetName=octave*
```

Example 8. Current addresses in Boulevard de Waterloo 30, 1000 (Brussels)

```
.../belgianAddress/v2/addresses?postCode=1000&streetName=Boulevard%20de%2
0Waterloo&houseNumber=30
```



Example 9. Current addresses within a 150 meter radius of GPS coordinates, only first (box number) of each building

.../belgianAddress/v2/addresses?radius=150&xLong=4.231&yLat=51.210&first0fBuilding=true

Missing geo coordinates in the Walloon Region



Currently the Walloon Region does not provide geo coordinates for +/-100.000 addresses.

Missing coordinates will be added in the future, but this process may take several months.

Accuracy of geo coordinates



Even though the coordinates may give the impression of being accurate down to the millimeter, this is not the case due to measurement and conversion error margins.

A more realistic value would be an accuracy of about 1 or 2 meter, which is probably good enough for many purposes.



2.5. Search for streets

2.5.1. Getting a single street by BeST-ID

This will return a single street in JSON, or an HTTP 404 Not Found error when no street was found.

Parameter	Description
embed	Embed municipality
	Values : true (default), false, municipalities

Example 10. A single street, embed municipality directly

```
.../belgianAddress/v2/streets/https%3A%2F%2Fdata.vlaanderen.be%2Fid%2Fstraatnaam%2F616%2F2023-11-01T08%3A19%3A53%2B01%3A00
```

```
"self":
"/api/best/v1/belgianAddress/v2/streets/https%3A%2F%2Fdata.vlaanderen.be%
2Fid%2Fstraatnaam%2F616%2F2023-11-01T08%3A19%3A53%2B01%3A00",
  "id": "https://data.vlaanderen.be/id/straatnaam/616/2023-11-
01T08:19:53+01:00",
  "bestidentifier": {
    "nameSpace": "https://data.vlaanderen.be/id/straatnaam/",
    "objectIdentifier": "616",
    "versionIdentifier": "2023-11-01T08:19:53+01:00"
 },
  "name": {
    "nl": "De Keyserlei"
 },
  "streetNameType": "streetname",
  "status": "current",
  "validFrom": "2002-11-21T11:23:45",
  "beginLifeSpanVersion": "2002-11-21T11:23:45",
  "isAssignedBy": {
    "id": "https://data.vlaanderen.be/id/gemeente/11002/2002-08-
13T16:33:18+02:00",
    "href":
"/api/best/v1/belgianAddress/v2/municipalities/https%3A%2F%2Fdata.vlaande
ren.be%2Fid%2Fgemeente%2F11002%2F2002-08-13T16%3A33%3A18%2B02%3A00",
    "nisCode": "11002",
    "name": {
     "nl": "Antwerpen",
      "fr": "Anvers",
```



```
"de": "Antwerpen"
}
}
```

2.5.2. Searching for one or more streets

This will return a list of zero or more streets (i.e. an empty list will *not* produce an HTTP 404).

Parameter	Description
partialId	Partial BeST ID+ Namespace + objectIdentifier are required, but the optional versionIdentifier will be ignored
nisCode	NIS code of the municipality
municipalityId	URL encoded BeST-ID of the municipality
postCode	Postal code
postalInfoId	URL encoded BeST-ID of the postalInfo
status	Status of the street Values : any, current, proposed, reserved, retired, rejected
embed	Embed municipality Values : true (default), false, municipalities
page	Page number (on paginated results)

Example 11. Current streets in 62063 (Liège), municipality in separate 'embedded' object



```
"fr": "Al Gripète"
      },
      "streetNameType": "streetname",
      "status": "current",
      "validFrom": "1969-01-01T00:00:00",
      "beginLifeSpanVersion": "2020-12-28T21:02:01",
      "isAssignedBy": {
        "id": "geodata.wallonie.be/id/Municipality/62063/7",
"/api/best/v1/belgianAddress/v2/municipalities/geodata.wallonie.be%2Fid%2
FMunicipality%2F62063%2F7"
   },
   {
      "id": "geodata.wallonie.be/id/Streetname/7729966/1",
      "bestidentifier": {
        "nameSpace": "geodata.wallonie.be/id/Streetname",
        "objectIdentifier": "7729966",
        "versionIdentifier": "1"
     },
      "name": {
        "fr": "Place Cockerill"
      "streetNameType": "streetname",
     "status": "current",
      "validFrom": "1969-01-01T00:00:00",
      "beginLifeSpanVersion": "2018-09-17T22:04:03",
      "isAssignedBy": {
        "id": "geodata.wallonie.be/id/Municipality/62063/7",
        "href":
"/api/best/v1/belgianAddress/v2/municipalities/geodata.wallonie.be%2Fid%2
FMunicipality%2F62063%2F7"
      }
   }
 ],
 "embedded": {
"/api/best/v1/belgianAddress/v2/municipalities/geodata.wallonie.be%2Fid%2
FMunicipality%2F62063%2F7": {
      "id": "geodata.wallonie.be/id/Municipality/62063/7",
"/api/best/v1/belgianAddress/v2/municipalities/geodata.wallonie.be%2Fid%2
FMunicipality%2F62063%2F7",
      "nisCode": "62063",
      "name": {
        "nl": "Luik",
        "fr": "Liège",
```



```
"de": "Lüttich"
      }
    }
 },
  "next":
"/api/best/v1/belgianAddress/v2/streets?nisCode=62063&embed=municipalitie
s&page=2",
  "totalPages": 6,
  "pageSize": 400,
  "total": 2044,
  "first":
"/api/best/v1/belgianAddress/v2/streets?nisCode=62063&embed=municipalitie
s&page=1",
 "last":
"/api/best/v1/belgianAddress/v2/streets?nisCode=62063&embed=municipalitie
s&page=6"
}
```

Streets actually don't have a postal code



Postal codes are assigned at the address level, not at the street level. This means that the postal code for a street without any address (e.g. a country road) is unknown.

In rare cases, (addresses in) a street may have multiple postal codes.



2.6. Search for municipalities

2.6.1. Getting a single municipality by BeST-ID

This will return a single municipality in JSON, or an HTTP 404 Not Found error when no municipality was found.

Example 12. A single municipality

```
.../belgianAddress/v2/municipalities/geodata.wallonie.be%2Fid%2FMunicipal
ity%2F62063%2F7
  "self":
"/api/best/v1/belgianAddress/v2/municipalities/geodata.wallonie.be%2Fid%2
FMunicipality%2F62063%2F7",
  "id": "geodata.wallonie.be/id/Municipality/62063/7",
  "bestidentifier": {
    "nameSpace": "geodata.wallonie.be/id/Municipality",
    "objectIdentifier": "62063",
    "versionIdentifier": "7"
 },
  "nisCode": "62063",
  "name": {
    "nl": "Luik",
    "fr": "Liège",
    "de": "Lüttich"
 },
  "status": "current"
```



2.6.2. Searching for one or more municipalities

This will return a list of zero or more municipalities (i.e. an empty list will *not* produce an HTTP 404).

Parameter	Description
partialId	Partial BeST ID Namespace + objectIdentifier are required, but the optional versionIdentifier will be ignored
nisCode	NIS code of the municipality
postalInfoId	URL encoded BeST-ID of the postalInfo
postCode	Postal code
name	Full name (any language, accents are ignored, case-insensitive). Use '*' before/after the string to perform a substring match.
status	Status of the municipality Values : any, current (default), proposed, reserved, retired, rejected
page	Page number (on paginated results)

Example 13. All municipalities, regardless of status

```
.../belgianAddress/v2/municipalities?status=any
 "self":
"/api/best/v1/belgianAddress/v2/municipalities?status=any&page=1",
 "items": [
     "id": "https://databrussels.be/id/municipality/21001/16",
     "bestidentifier": {
       "nameSpace": "https://databrussels.be/id/municipality",
        "objectIdentifier": "21001",
        "versionIdentifier": "16"
     },
      "nisCode": "21001",
      "name": {
        "nl": "Anderlecht",
       "fr": "Anderlecht"
     },
      "status": "current"
   },
   {
```



```
"id": "geodata.wallonie.be/id/Municipality/93090/7",
      "bestidentifier": {
        "nameSpace": "geodata.wallonie.be/id/Municipality",
        "objectIdentifier": "93090",
        "versionIdentifier": "7"
      },
      "nisCode": "93090",
      "name": {
        "nl": "Viroinval",
        "fr": "Viroinval",
        "de": "Viroinval"
      },
      "status": "current"
    }
  ],
  "totalPages": 1,
  "pageSize": 600,
  "total": 565,
 "first":
"/api/best/v1/belgianAddress/v2/municipalities?status=any&page=1",
"/api/best/v1/belgianAddress/v2/municipalities?status=any&page=1"
}
```

Example 14. Current municipalities called Liège (URL-encoded or without accent)

```
.../belgianAddress/v2/municipalities?name=li%C3%A8ge
.../belgianAddress/v2/municipalities?name=Liege
```

Informal translations



It's up to the Regions to decide if they provide commonly used - but not legally approved - translations of municipality names like Liège (NL: Luik, DE: Lüttich)

Example 15. Current municipalities with a name ending on 'Woluwe'

```
.../belgianAddress/v2/municipalities?name=*Woluwe
```



Example 16. Current municipalities by partial ID

.../belgianAddress/v2/municipalities?partialId=geodata.wallonie.be%2Fid%2 FMunicipality%2F62063

Example 17. Current municipalities with (addresses with) postal code 1030

.../belgianAddress/v2/municipalities?postCode=1030

Municipalities actually don't have a postal code



Postal codes are assigned at the address level, not at the municipality level.

This means that a postal code may occur in (addresses of) more than one municipality, and that a municipality may have (addresses with) more than one postal code.



2.7. Search for partOfMunicipalities

Only available for the Walloon Region

Only the Walloon Region provides municipality parts (former municipalities that are now part of a larger municipality).



The Flemish Region does not provide this information: their point of view is that legally speaking these (former) municipalities don't exist anymore.

For the Brussels Region it isn't relevant, since the last merger in Brussels was over a century ago.

2.7.1. Getting a single part of municipality by BeST-ID

This will return a single part of municipality in JSON, or an HTTP 404 Not Found error when no part of municipality was found.

Example 18. A single part of municipality

```
.../belgianAddress/v2/partOfMunicipalities/geodata.wallonie.be%2Fid%2FPartOfMunicipality%2F1%2F2
```

```
{
    "self":
    "/api/best/v1/belgianAddress/v2/partOfMunicipalities/geodata.wallonie.be%
2Fid%2FPartOfMunicipality%2F1%2F2",
    "id": "geodata.wallonie.be/id/PartOfMunicipality/1/2",
    "bestidentifier": {
        "nameSpace": "geodata.wallonie.be/id/PartOfMunicipality",
        "objectIdentifier": "1",
        "versionIdentifier": "2"
    },
    "name": {
        "fr": "Abée-Scry"
    },
    "status": "current"
}
```



2.7.2. Searching for one or more part of municipalities

This will return a list of zero or more part of municipalities (i.e. an empty list will *not* produce an HTTP 404).

Parameter	Description
partialId	Partial BeST ID Namespace + objectIdentifier are required, but the optional versionIdentifier will be ignored
name	Full name (any language, accents are ignored, case-insensitive). Use '*' before/after the string to perform a substring match.
status	Status of the municipality Values : any, current (default), proposed, reserved, retired, rejected
page	Page number (on paginated results)

Example 19. Current part of municipalities with a name ending on 'Meuse'

```
.../belgianAddress/v2/municipalities?name=*Meuse
{
  "self":
"/api/best/v1/belgianAddress/v2/partOfMunicipalities?name=*Meuse&page=1",
  "items": [
      "id": "geodata.wallonie.be/id/PartOfMunicipality/114050/1",
      "bestidentifier": {
        "nameSpace": "geodata.wallonie.be/id/PartOfMunicipality",
        "objectIdentifier": "114050",
        "versionIdentifier": "1"
      },
      "name": {
        "fr": "Relax Meuse"
      "status": "current"
    },
      "id": "geodata.wallonie.be/id/PartOfMunicipality/882/1",
      "bestidentifier": {
        "nameSpace": "geodata.wallonie.be/id/PartOfMunicipality",
        "objectIdentifier": "882",
        "versionIdentifier": "1"
      },
```



```
"name": {
      "fr": "Lives-sur-Meuse"
    },
      "status": "current"
    }
],
    "totalPages": 1,
    "pageSize": 600,
    "total": 5,
    "first":
    "/api/best/v1/belgianAddress/v2/partOfMunicipalities?name=*Meuse&page=1",
    "last":
    "/api/best/v1/belgianAddress/v2/partOfMunicipalities?name=*Meuse&page=1"
}
```



2.8. Search for postalInfos

2.8.1. Getting a single postal info by BeST-ID

This will return a single postal info in JSON, or an HTTP 404 Not Found error when no postal info was found.

Example 20. A single postal info

```
.../belgianAddress/v2/postalInfos/https%3A%2F%2Fdatabrussels.be%2Fid%2Fpo
stalinfo%2F1000%2F3
  "self":
"/api/best/v1/belgianAddress/v2/postalInfos/https%3A%2F%2Fdatabrussels.be
%2Fid%2Fpostalinfo%2F1000%2F3",
  "id": "https://databrussels.be/id/postalinfo/1000/3",
  "bestidentifier": {
    "nameSpace": "https://databrussels.be/id/postalinfo",
    "objectIdentifier": "1000",
    "versionIdentifier": "3"
 },
  "postCode": "1000",
  "name": {
    "nl": "Brussel (Centrum)",
    "fr": "Bruxelles (Centre)"
 }
}
```

2.8.2. Searching for postal infos

Parameter	Description
partialId	Partial BeST address ID Namespace and objectIdentifier are required, but the optional versionIdentifier will be ignored
postCode	Postal code
name	Full name of the postal info (URL-encoded, any language, case-insensitive, accents are ignored). Use '*' before/after the string to perform a substring match.



Parameter	Description
status	Status of the street Values : any, current, proposed, reserved, retired, rejected
page	Page number (on paginated results)

Example 21. Current postal infos starting with Brus

```
.../belgianAddress/v2/postalInfos&name=Brus*
  "self": "/api/best/v1/belgianAddress/v2/postalInfos?name=Brus*&page=1",
  "items": [
      "id": "https://databrussels.be/id/postalinfo/1000/3",
      "bestidentifier": {
        "nameSpace": "https://databrussels.be/id/postalinfo",
        "objectIdentifier": "1000",
        "versionIdentifier": "3"
      },
      "postCode": "1000",
      "name": {
        "nl": "Brussel (Centrum)",
        "fr": "Bruxelles (Centre)"
      }
   },
      "id": "https://data.vlaanderen.be/id/postinfo/1785/2020-02-
10T12:44:14+01:00",
      "bestidentifier": {
        "nameSpace": "https://data.vlaanderen.be/id/postinfo/",
        "objectIdentifier": "1785",
        "versionIdentifier": "2020-02-10T12:44:14+01:00"
      },
      "postCode": "1785",
      "name": {
        "nl": "Brussegem/Hamme/MERCHTEM"
      }
    }
  1,
  "totalPages": 1,
  "pageSize": 400,
  "total": 6,
  "first":
"/api/best/v1/belgianAddress/v2/postalInfos?name=Brus*&page=1",
```



```
"last": "/api/best/v1/belgianAddress/v2/postalInfos?name=Brus*&page=1" }
```



Postal info names are not available for the Walloon Region

The Walloon Region does not provide names for postal codes, only the postal codes.

Example 22. Current postal infos, page 3

.../belgianAddress/v2/postalInfos?page=3



2.9. Additional info

Some additional info about the API can be found (in HTML or plain text) via /version or /doc:

Example 23. Get the API version and date of last update per Region

.../belgianAddress/v2/version

Example 24. Get the list of known issues

.../belgianAddress/v2/doc/issues.html

Example 25. Show data and software components license info

.../belgianAddress/v2/doc/licenses/index.html

Example 26. Show release notes of the API

.../belgianAddress/v2/doc/RELEASE-NOTES.txt



Appendix A: Address data license

The address data is provided by the 3 Belgian Regions, licensed "as-is" under Creative Commons Attribution 4.0.

A.1. Creative Commons Attribution 4.0

Attribution 4.0 International

Creative Commons Corporation ("Creative Commons") is not a law firm and does not provide legal services or legal advice. Distribution of Creative Commons public licenses does not create a lawyer-client or other relationship. Creative Commons makes its licenses and related information available on an "as-is" basis. Creative Commons gives no warranties regarding its licenses, any material licensed under their terms and conditions, or any related information. Creative Commons disclaims all liability for damages resulting from their use to the fullest extent possible.

Using Creative Commons Public Licenses

Creative Commons public licenses provide a standard set of terms and conditions that creators and other rights holders may use to share original works of authorship and other material subject to copyright and certain other rights specified in the public license below. The following considerations are for informational purposes only, are not exhaustive, and do not form part of our licenses.

Considerations for licensors: Our public licenses are intended for use by those authorized to give the public permission to use material in ways otherwise restricted by copyright and certain other rights. Our licenses are irrevocable. Licensors should read and understand the terms and conditions of the license they choose before applying it. Licensors should also secure all rights necessary before applying our licenses so that the public can reuse the material as expected. Licensors should clearly mark any material not subject to the license. This includes other CC-licensed material, or material used under an exception or limitation to copyright. More considerations for licensors: wiki.creativecommons.org/Considerations_for_licensors

Considerations for the public: By using one of our public



licenses, a licensor grants the public permission to use the licensed material under specified terms and conditions. If the licensor's permission is not necessary for any reason--for example, because of any applicable exception or limitation to copyright--then that use is not regulated by the license. Our licenses grant only permissions under copyright and certain other rights that a licensor has authority to grant. Use of the licensed material may still be restricted for other reasons, including because others have copyright or other rights in the material. A licensor may make special requests, such as asking that all changes be marked or described. Although not required by our licenses, you are encouraged to respect those requests where reasonable. More considerations for the public:

wiki.creativecommons.org/Considerations_for_licensees

Creative Commons Attribution 4.0 International Public License

By exercising the Licensed Rights (defined below), You accept and agree to be bound by the terms and conditions of this Creative Commons Attribution 4.0 International Public License ("Public License"). To the extent this Public License may be interpreted as a contract, You are granted the Licensed Rights in consideration of Your acceptance of these terms and conditions, and the Licensor grants You such rights in consideration of benefits the Licensor receives from making the Licensed Material available under these terms and conditions.

Section 1 -- Definitions.

- a. Adapted Material means material subject to Copyright and Similar Rights that is derived from or based upon the Licensed Material and in which the Licensed Material is translated, altered, arranged, transformed, or otherwise modified in a manner requiring permission under the Copyright and Similar Rights held by the Licensor. For purposes of this Public License, where the Licensed Material is a musical work, performance, or sound recording, Adapted Material is always produced where the Licensed Material is synched in timed relation with a moving image.
- b. Adapter's License means the license You apply to Your Copyright and Similar Rights in Your contributions to Adapted Material in accordance with the terms and conditions of this Public License.
- c. Copyright and Similar Rights means copyright and/or similar rights closely related to copyright including, without limitation,



performance, broadcast, sound recording, and Sui Generis Database Rights, without regard to how the rights are labeled or categorized. For purposes of this Public License, the rights specified in Section 2(b)(1)-(2) are not Copyright and Similar Rights.

- d. Effective Technological Measures means those measures that, in the absence of proper authority, may not be circumvented under laws fulfilling obligations under Article 11 of the WIPO Copyright Treaty adopted on December 20, 1996, and/or similar international agreements.
- e. Exceptions and Limitations means fair use, fair dealing, and/or any other exception or limitation to Copyright and Similar Rights that applies to Your use of the Licensed Material.
- f. Licensed Material means the artistic or literary work, database, or other material to which the Licensor applied this Public License.
- g. Licensed Rights means the rights granted to You subject to the terms and conditions of this Public License, which are limited to all Copyright and Similar Rights that apply to Your use of the Licensed Material and that the Licensor has authority to license.
- h. Licensor means the individual(s) or entity(ies) granting rights under this Public License.
- i. Share means to provide material to the public by any means or process that requires permission under the Licensed Rights, such as reproduction, public display, public performance, distribution, dissemination, communication, or importation, and to make material available to the public including in ways that members of the public may access the material from a place and at a time individually chosen by them.
- j. Sui Generis Database Rights means rights other than copyright resulting from Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, as amended and/or succeeded, as well as other essentially equivalent rights anywhere in the world.
- k. You means the individual or entity exercising the Licensed Rights under this Public License. Your has a corresponding meaning.

Section 2 -- Scope.

30



a. License grant.

- 1. Subject to the terms and conditions of this Public License, the Licensor hereby grants You a worldwide, royalty-free, non-sublicensable, non-exclusive, irrevocable license to exercise the Licensed Rights in the Licensed Material to:
 - a. reproduce and Share the Licensed Material, in whole or in part; and
 - b. produce, reproduce, and Share Adapted Material.
- 2. Exceptions and Limitations. For the avoidance of doubt, where Exceptions and Limitations apply to Your use, this Public License does not apply, and You do not need to comply with its terms and conditions.
- 3. Term. The term of this Public License is specified in Section 6(a).
- 4. Media and formats; technical modifications allowed. The Licensor authorizes You to exercise the Licensed Rights in all media and formats whether now known or hereafter created, and to make technical modifications necessary to do so. The Licensor waives and/or agrees not to assert any right or authority to forbid You from making technical modifications necessary to exercise the Licensed Rights, including technical modifications necessary to circumvent Effective Technological Measures. For purposes of this Public License, simply making modifications authorized by this Section 2(a) (4) never produces Adapted Material.

5. Downstream recipients.

- a. Offer from the Licensor -- Licensed Material. Every recipient of the Licensed Material automatically receives an offer from the Licensor to exercise the Licensed Rights under the terms and conditions of this Public License.
- b. No downstream restrictions. You may not offer or impose any additional or different terms or conditions on, or apply any Effective Technological Measures to, the Licensed Material if doing so restricts exercise of the Licensed Rights by any recipient of the Licensed Material.
- 6. No endorsement. Nothing in this Public License constitutes or



may be construed as permission to assert or imply that You are, or that Your use of the Licensed Material is, connected with, or sponsored, endorsed, or granted official status by, the Licensor or others designated to receive attribution as provided in Section 3(a)(1)(A)(i).

b. Other rights.

- 1. Moral rights, such as the right of integrity, are not licensed under this Public License, nor are publicity, privacy, and/or other similar personality rights; however, to the extent possible, the Licensor waives and/or agrees not to assert any such rights held by the Licensor to the limited extent necessary to allow You to exercise the Licensed Rights, but not otherwise.
- 2. Patent and trademark rights are not licensed under this Public License.
- 3. To the extent possible, the Licensor waives any right to collect royalties from You for the exercise of the Licensed Rights, whether directly or through a collecting society under any voluntary or waivable statutory or compulsory licensing scheme. In all other cases the Licensor expressly reserves any right to collect such royalties.

Section 3 -- License Conditions.

Your exercise of the Licensed Rights is expressly made subject to the following conditions.

a. Attribution.

- 1. If You Share the Licensed Material (including in modified form), You must:
 - a. retain the following if it is supplied by the Licensor with the Licensed Material:
 - i. identification of the creator(s) of the Licensed Material and any others designated to receive attribution, in any reasonable manner requested by the Licensor (including by pseudonym if designated);
 - ii. a copyright notice;



- iii. a notice that refers to this Public License;
- iv. a notice that refers to the disclaimer of
 warranties;
- v. a URI or hyperlink to the Licensed Material to the extent reasonably practicable;
- b. indicate if You modified the Licensed Material and retain an indication of any previous modifications; and
- c. indicate the Licensed Material is licensed under this Public License, and include the text of, or the URI or hyperlink to, this Public License.
- 2. You may satisfy the conditions in Section 3(a)(1) in any reasonable manner based on the medium, means, and context in which You Share the Licensed Material. For example, it may be reasonable to satisfy the conditions by providing a URI or hyperlink to a resource that includes the required information.
- 3. If requested by the Licensor, You must remove any of the information required by Section 3(a)(1)(A) to the extent reasonably practicable.
- 4. If You Share Adapted Material You produce, the Adapter's License You apply must not prevent recipients of the Adapted Material from complying with this Public License.

Section 4 -- Sui Generis Database Rights.

Where the Licensed Rights include Sui Generis Database Rights that apply to Your use of the Licensed Material:

- a. for the avoidance of doubt, Section 2(a)(1) grants You the right to extract, reuse, reproduce, and Share all or a substantial portion of the contents of the database;
- b. if You include all or a substantial portion of the database contents in a database in which You have Sui Generis Database Rights, then the database in which You have Sui Generis Database Rights (but not its individual contents) is Adapted Material; and
- c. You must comply with the conditions in Section 3(a) if You Share all or a substantial portion of the contents of the database.



For the avoidance of doubt, this Section 4 supplements and does not replace Your obligations under this Public License where the Licensed Rights include other Copyright and Similar Rights.

Section 5 -- Disclaimer of Warranties and Limitation of Liability.

- a. UNLESS OTHERWISE SEPARATELY UNDERTAKEN BY THE LICENSOR, TO THE EXTENT POSSIBLE, THE LICENSOR OFFERS THE LICENSED MATERIAL AS-IS AND AS-AVAILABLE, AND MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE LICENSED MATERIAL, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHER. THIS INCLUDES, WITHOUT LIMITATION, WARRANTIES OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, ABSENCE OF LATENT OR OTHER DEFECTS, ACCURACY, OR THE PRESENCE OR ABSENCE OF ERRORS, WHETHER OR NOT KNOWN OR DISCOVERABLE. WHERE DISCLAIMERS OF WARRANTIES ARE NOT ALLOWED IN FULL OR IN PART, THIS DISCLAIMER MAY NOT APPLY TO YOU.
- b. TO THE EXTENT POSSIBLE, IN NO EVENT WILL THE LICENSOR BE LIABLE TO YOU ON ANY LEGAL THEORY (INCLUDING, WITHOUT LIMITATION, NEGLIGENCE) OR OTHERWISE FOR ANY DIRECT, SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY, OR OTHER LOSSES, COSTS, EXPENSES, OR DAMAGES ARISING OUT OF THIS PUBLIC LICENSE OR USE OF THE LICENSED MATERIAL, EVEN IF THE LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES, COSTS, EXPENSES, OR DAMAGES. WHERE A LIMITATION OF LIABILITY IS NOT ALLOWED IN FULL OR IN PART, THIS LIMITATION MAY NOT APPLY TO YOU.
- c. The disclaimer of warranties and limitation of liability provided above shall be interpreted in a manner that, to the extent possible, most closely approximates an absolute disclaimer and waiver of all liability.

Section 6 -- Term and Termination.

- a. This Public License applies for the term of the Copyright and Similar Rights licensed here. However, if You fail to comply with this Public License, then Your rights under this Public License terminate automatically.
- b. Where Your right to use the Licensed Material has terminated under Section 6(a), it reinstates:
 - automatically as of the date the violation is cured, provided it is cured within 30 days of Your discovery of the violation; or



2. upon express reinstatement by the Licensor.

For the avoidance of doubt, this Section 6(b) does not affect any right the Licensor may have to seek remedies for Your violations of this Public License.

- c. For the avoidance of doubt, the Licensor may also offer the Licensed Material under separate terms or conditions or stop distributing the Licensed Material at any time; however, doing so will not terminate this Public License.
- d. Sections 1, 5, 6, 7, and 8 survive termination of this Public License.

Section 7 -- Other Terms and Conditions.

- a. The Licensor shall not be bound by any additional or different terms or conditions communicated by You unless expressly agreed.
- b. Any arrangements, understandings, or agreements regarding the Licensed Material not stated herein are separate from and independent of the terms and conditions of this Public License.

Section 8 -- Interpretation.

- a. For the avoidance of doubt, this Public License does not, and shall not be interpreted to, reduce, limit, restrict, or impose conditions on any use of the Licensed Material that could lawfully be made without permission under this Public License.
- b. To the extent possible, if any provision of this Public License is deemed unenforceable, it shall be automatically reformed to the minimum extent necessary to make it enforceable. If the provision cannot be reformed, it shall be severed from this Public License without affecting the enforceability of the remaining terms and conditions.
- c. No term or condition of this Public License will be waived and no failure to comply consented to unless expressly agreed to by the Licensor.
- d. Nothing in this Public License constitutes or may be interpreted as a limitation upon, or waiver of, any privileges and immunities that apply to the Licensor or You, including from the legal processes of any jurisdiction or authority.