ORDNANCE SURVEY GB

ADDRESSBASE
TECHNICAL SPECIFICATION

OFFICIAL
Ver 2.3

Ordnance Survey

Version history

Version	Date	Description
2.2	10/2018	Update to RPC code descriptions. Changed order or items in code lists for layout purpose.
2.3	09/2021	Updated formatting.

Purpose of this document

This document provides information about and insight into the AddressBase product and its potential applications. For information on the contents and structure of AddressBase, please refer to the Getting Started Guide.

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AddressBase contains data created and maintained by English, Welsh and Scottish Local Government as well as Royal Mail and Valuation Office Agency.

Trademarks

Contact details

OS website 'Contact us' page (https://www.ordnancesurvey.co.uk/contact-us).

Contents

1. Introduction

AddressBase provides an address product containing both residential and commercial addresses where a Local Authority address has been matched to a Royal Mail PAF address. This allows users to link additional information about a property to a single address. The product also provides enhancements to the Royal Mail PAF data by assigning an X and Y coordinate on British National Grid and an ETRS89 projection, as well as a primary level classification, and a representative point code describing the positional quality.

1.1 Data formats

The AddressBase product will be distributed as a comma-separated values (CSV) file or Geography Markup Language (GML) version 3.2. Both of these formats can either be supplied as a full supply or a change-only update (COU) supply.

1.1.1 CSV

The CSV supply of AddressBase means:

- There will be one record per line in each file
- Fields will be separated by commas
- String fields will be delimited by double quotes
- No comma will be placed at the end of each row in the file
- Records will be terminated by Carriage Return / Line Feed
- Double quotes inside strings will be escaped by doubling

Where a field has no value in a record, two commas will be placed together in the record (one for the end of the previous field and one for the end of the null field). Where the null field is a text field double quotes will be included between the two commas, for example - , “”,

AddressBase CSV data will be transferred using Unicode encoded in UTF-8. Unicode includes all the characters in ISO-8859-14 (Welsh characters). Some accented characters are encoded differently.

The transfer will normally be in a single file, but the data can be split into multiple files using volume numbers. Most files will only be split where there are more than one million records.

The header row for the CSV is supplied separately and can be downloaded from the product support pages.

1.1.2 GML

The GML Encoding standard is an Extensible Markup Language (XML) grammar for expressing geographical features. XML schemas are used to define and validate the format and content of GML. The XML specifications that GML is based on are available from the World Wide Web Consortium (W3C) website: http://www.w3.org. More information can be found in the Open Geospatial Consortium (OGC) document, Geography Markup Language v3.2.1: https://portal.ogc.org/files/?artifact_id=20509. The GML 3.2.1 specification provides a set of schemas that define the GML feature constructs and geometric types. These are designed to be used as a basis for building application-specific schemas, which define the data content.

A GML document is described using a GML Schema. The AddressBase schema document (addressbase.xsd), defines the features in AddressBase GML. This is available on the GeoPlace website at: http://www.geoplace.co.uk/addressbase/schema/2.1/addressbase.xsd.

It imports the GML 3.2.1 schemas which rely on XML as defined by W3C at: http://www.w3.org/XML/1998/namespace.html.

The application schema uses the following XML namespaces, for which definitions are available as given here:

Prefix	Namespace Identifier	Definition available at
gml	http://www.opengis.net/gml	http://schemas.opengis.net/gml/3.2.1/gml.xsd
xsi	http://www.w3.org/2001/XMLSchema-instance	Built into XML – http://www.w3.org/TR/xmlschema-1/
xlink	Xlink – http://www.w3.org/1999/xlink	http://www.w3.org/1999/xlink.xsd

Information about Unicode and UTF-8, the character encoding we have chosen, is available on the Unicode Consortium website: http://www.unicode.org/.

Features

Each feature within the AddressBaseSupplySet:FeatureCollection is encapsulated in the following member element according to its feature type:

Member Element	Feature Type
<abpl:addressMember>	Address

The UPRN of the feature is provided in the XML attribute of the gml:id

```
<abpl:addressMember>
<abpl:Address gml:id="uk.geoplace.uprn.100001153514">
……..
</abpl:Addrress>
</abpl:addressMember>
```

See Section 5.2 for specific GML examples.

Envelope

In the GML supply you can determine the extent of your supply by the <gml: Envelope>. For example:

```
<gml:boundedBy>
<gml:Envelope srsName="urn:ogc:def:crs:EPSG::27700">
<gml:lowerCorner>82643.6 5333.6</gml:lowerCorner>
<gml:upperCorner>655989 657599.5</gml:upperCorner>
</gml:Envelope>
</gml:boundedBy>
```

1.2 Supply and update

The primary supply mechanism of AddressBase data is referred to as non-geographic chunks. This is a way of dividing up the data into chunks that are supplied in separate volumes, which have a fixed maximum number of records. The supply is not supplied with any reference to the geographic position of records.

Public Sector Geospatial Agreement (PSGA) customers can order Geographic chunks (5km tiles) as well as non-geographic chunks, although geographic chunks are not considered the main form of supply.

All customers are also able to take a complete supply (referred to as a Managed Great Britain Set: MGBS) or an Area of Interest (AOI) as a full supply or a COU supply.

Non-geographic chunks (unzipped)

If you receive your data as non-geographic chunks, the filename will be constructed as follows:

- productName_supply_ccyy-mm-dd_vvv.format

Where:

ProductName is AddressBase.
supply is defined as FULL or COU.
ccyy-mm-dd is the date the file was generated.
vvv is the volume number of the file.
format is the format of the files received, for example, CSV or GML.

For example:

- AddressBase_FULL_2013-05-28_001.gml (GML full supply)
- AddressBase_COU_2013-05-28_001.csv (CSV COU supply)

Non-geographic chunks (zipped)

If the data has been provided in a zip file, the filename will be constructed as follows:

- productName_supply_ccyy-mm-dd_vvv_format.zip

For example:

- AddressBase_FULL_2013-05-28_001_gml.zip (GML full supply zipped)

Geographic chunks (unzipped)

If you receive your data as geographic chunks (PSGA customers only), the filename will be constructed as follows:

- productName_supply_ccyy-mm-dd_ngxxyy.format

Where:

ProductName is AddressBase.
supply is defined as FULL or COU.
ccyy-mm-dd is the date the file was generated.
ngxxyy is the four-digit grid reference belonging to the 1km south-west corner of the 5km chunk.

format is the format of the files received, for example, CSV or GML.

For example:

- AddressBase_FULL_2013-05-28_NC4040.gml (GML full supply)
- AddressBase_COU_2013-05-28_NC4040.csv (CSV COU supply)

Geographic chunks (zipped)

If the data has been provided in a zip file, the filename will be constructed as follows:

- productName_supply_ccyy-mm-dd_ngxxyy_format.zip

For example:

- AddressBase_COU_2013-05-28_NC4040_csv.zip (CSV COU supply zipped)

1.3 Coordinate reference system

AddressBase has two coordinate reference systems (CRS) present within the data:

1. British National Grid (BNG).
2. European Terrestrial Reference System 89 (ETRS89).

BNG uses the OSGB36 geodetic datum and a single Transverse Mercator projection for the whole of Great Britain. Positions on this projection are described using Easting and Northing coordinates in units of metres. The BNG is a horizontal spatial reference system only; it does not specify a vertical (height) reference system.

ETRS89 is the EU recommended frame of reference for European data and is represented as Latitude and Longitude values. ETRS89 is a horizontal spatial reference system only; it does not specify a vertical (height) reference system.

View our Guide to Coordinate Systems in Great Britain.

1.4 Unique Property Reference Number

A Unique Property Reference Number (UPRN) is a unique numeric identifier for every addressable location in Great Britain. The UPRN is the persistent identifier providing consistency across the AddressBase product range. Each address record has a UPRN, assigned by Local Authorities in England, Wales and Scotland or Ordnance Survey depending on the type of address. This is the primary key of the AddressBase product.

Throughout its lifecycle, information on the address of a property can change. This may be due to a change of name, change of use, or the eventual demolition of the property. Independent of any changes being made the UPRN associated to an address is never changed, meaning the unique identifier remains persistent and reliable.

2. AddressBase structure

AddressBase is structured as a flat file. The data structure in this document is described by means of Unified Modeling Language (UML) class diagrams and accompanying tables containing text.

2.1 Structure

The AddressBase product is constructed as per the following UML diagrams.

2.1.1 Model overview CSV

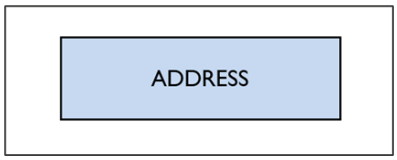


Figure 1: High level data model representing the address feature (CSV).

AddressBase CSV

Definition: This address record follows the lifecycle of a Postcode Address File (PAF) record matched to a Local Authority record. As a matched record is inserted, deleted and updated within PAF, these changes are incorporated into the AddressBase product. Similarly, if the matched Local Authority address record updates an attribute contained within the AddressBase product, this change will be reflected.

The UML model of AddressBase in CSV format can be seen in Figure 2. In the UML diagram, classes from the Ordnance Survey product specification are coloured orange; all code lists are coloured blue, while enumerations are coloured green.

UML model of AddressBase in CSV format

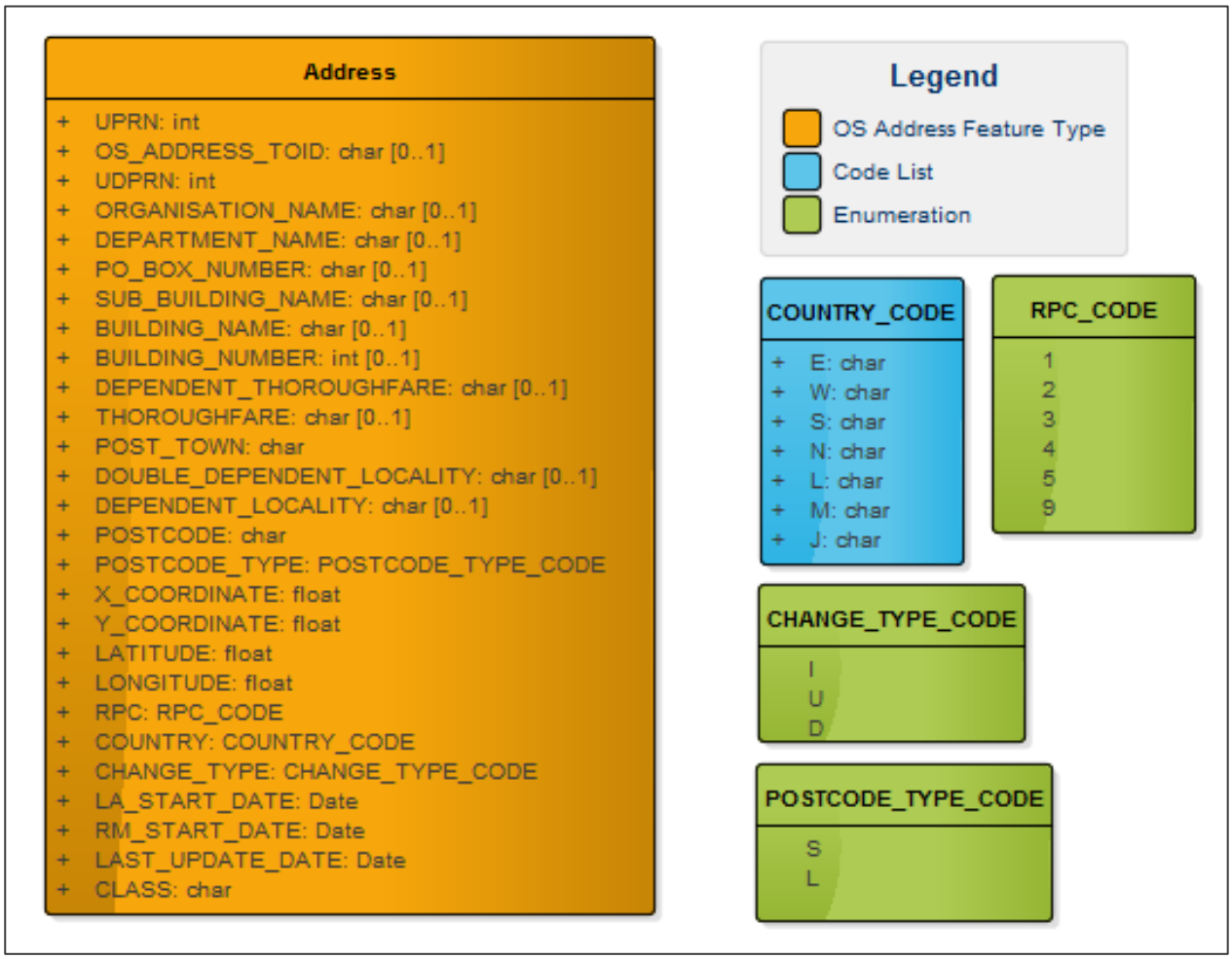


Figure 2: UML model showing AddressBase feature types, enumerations and code lists for the CSV supply.

2.1.2 Model overview GML

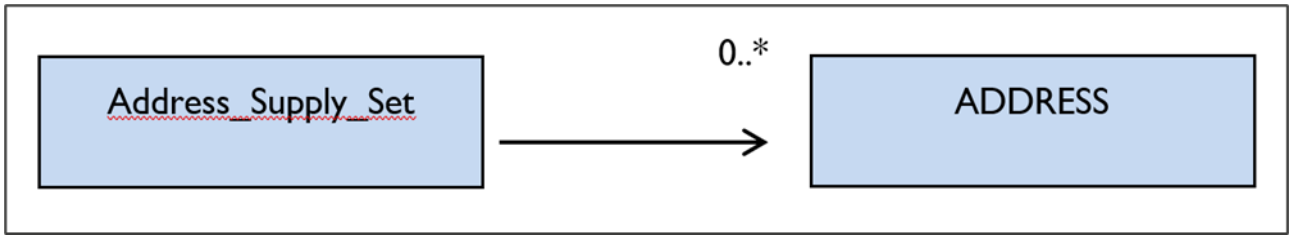


Figure 3: High level data model representing the address relationships (GML).

AddressBase GML

Definition: This address record follows the lifecycle of a Postcode Address File (PAF) record matched to a Local Authority record. As a matched record is inserted, deleted and updated within PAF, these changes are incorporated into the AddressBase product. Similarly, if the matched Local Authority address record updates an attribute contained within the AddressBase product, this change will be reflected.

The UML model of AddressBase in GML format can be seen in Figure 4. In the UML diagram, classes from the Ordnance Survey product specification are orange, all code lists are coloured blue and enumerations are green.

UML model of AddressBase in GML format

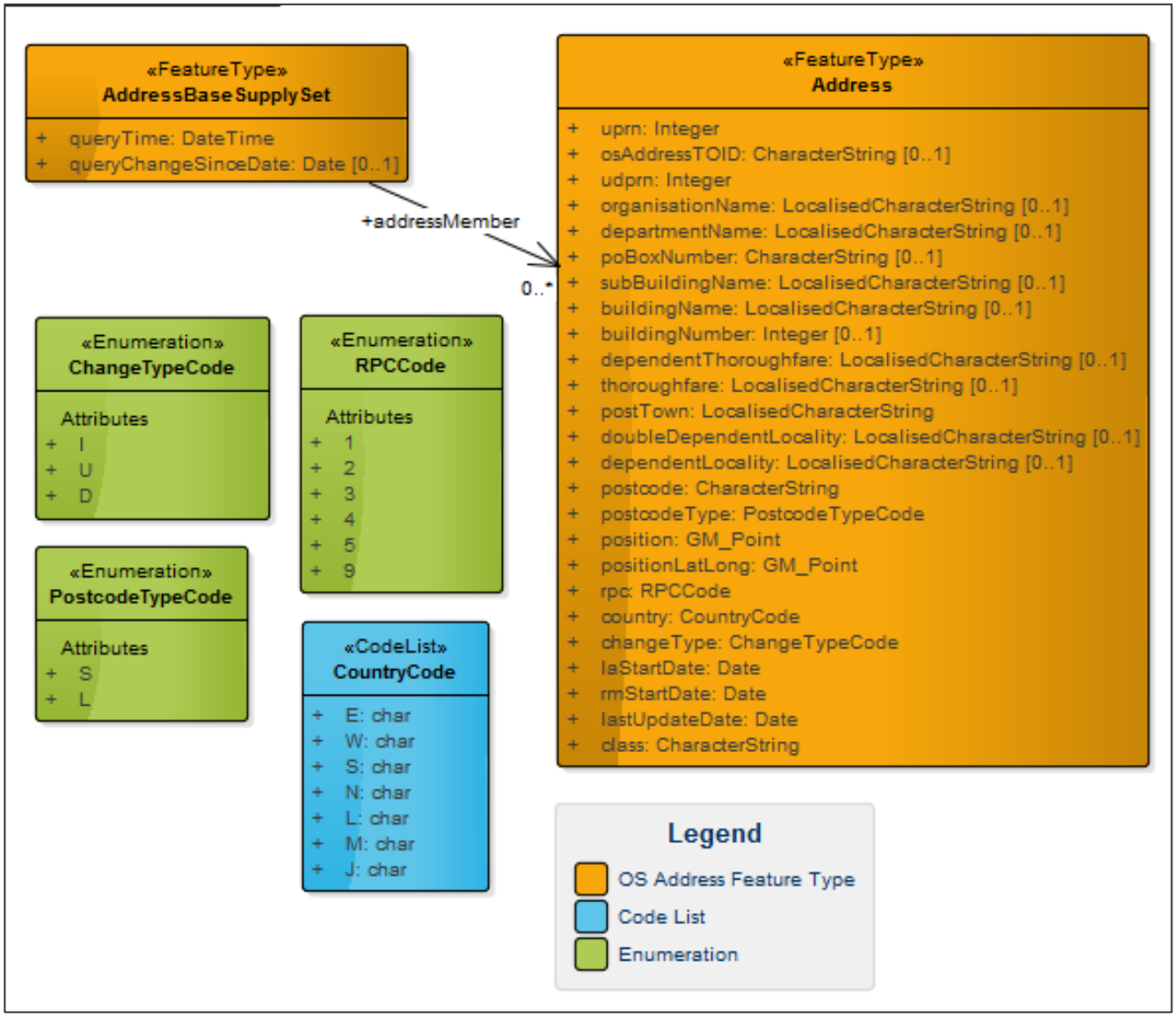


Figure 4: UML model showing AddressBase feature types, enumerations and code lists for the GML supply.

2.2 Features

This section describes the features (one for CSV and two for GML) which make up the AddressBase product, giving the following information about each attribute:

Name and Definition: The name of the attribute and what it is describing.

Condition: A condition associated with this attribute. (optional).

Attribute Type: The nature of the attribute, for example a numeric value or a code list value.

Multiplicity: Describes how many times this element is expected to be populated in the data. An attribute may be optional or mandatory within the AddressBase product. These are denoted by:

- '1' – there must be a value
- '0..1' – population is optional but a maximum of one attribute will be returned

These values may be used in combination.

The tables which follow in this Technical Specification use orange for a feature type, blue for a code list and green for enumerations.

Address		
GML: uprn		CSV: UPRN
Definition: Unique Property Reference Number (UPRN) assigned by the LLPG Custodian or Ordnance Survey. Source: Contributing Local Authority / Ordnance Survey.		
Type: Integer	Size: 12	Multiplicity: [1]
GML: osAddressTOID		CSV: OS_ADDRESS_TOID
Definition: Unique identifier provided by Ordnance Survey. Source: Ordnance Survey		
Type: GML – LocalisedCharacterString CSV – char	Size: 20	Multiplicity: [0..1]
GML: udprn		CSV: UDPRN
Definition: Royal Mail's Unique Delivery Point Reference Number (UDPRN). Source: Royal Mail		
Type: Integer	Size: 8	Multiplicity: [1]

Address		
GML: organisationName		CSV: ORGANISATION_NAME
Definition: The organisation name is the business name given to a delivery point within a building or small group of buildings. For example: TOURIST INFORMATION CENTRE This field could also include entries for churches, public houses and libraries. Source: Royal Mail		
Condition: Organisation Name or PO Box Number must be present if Building Name or Building Number are all not present.		
Type: GML – LocalisedCharacterString CSV – char	Size: 60	Multiplicity: [0..1]
GML: departmentName		CSV: DEPARTMENT_NAME
Definition: For some organisations, department name is indicated because mail is received by subdivisions of the main organisation at distinct delivery points. For example: Organisation Name: ABC COMMUNICATIONS RM Department Name: MARKETING DEPARTMENT Source: Royal Mail		
Condition: If a Department Name is present, an Organisation Name must also be present.		
Type: GML – LocalisedCharacterString CSV – char	Size: 60	Multiplicity: [0..1]
GML: poBoxNumber		CSV: PO_BOX_NUMBER
Definition: Post Office Box (PO Box) number. Source: Royal Mail		
Condition: Organisation Name or PO Box Number must be present if Building Name or Building Number are all not present.		
Type: GML – CharacterString CSV – char	Size: 6	Multiplicity: [0..1]

Address		
GML: subBuildingName		CSV: SUB_BUILDING_NAME
Definition: The sub-building name and/or number are identifiers for subdivisions of properties. For example: Sub-building Name: FLAT 3 Building Name: POPLAR COURT Thoroughfare: LONDON ROAD *NOTE: If the above address is styled 3 POPLAR COURT, all the text will be shown in the Building Name attribute and the Sub-building Name will be empty. The building number will be shown in this field when it contains a range, decimal or non-numeric character (see Building Number).* Source: Royal Mail		
Condition: If a Sub Building Name is present, a Building Name or Building Number must also be present.		
Type: GML – LocalisedCharacterString CSV – char	Size: 30	Multiplicity: [0..1]
GML: buildingName		CSV: BUILDING_NAME
Definition: The building name is a description applied to a single building or a small group of buildings, such as Highfield House. This also includes those building numbers that contain non-numeric characters, such as 44A. Some descriptive names, when included with the rest of the address, are sufficient to identify the property uniquely and unambiguously, for example, MAGISTRATES COURT. Sometimes the building name will be a blend of distinctive and descriptive naming, for example, RAILWAY TAVERN (PUBLIC HOUSE) or THE COURT ROYAL (HOTEL). Source: Royal Mail		
Condition: Building Name must be present if Organisation Name or Building Number or PO Box Number are all not present.		
Type: GML – LocalisedCharacterString CSV – char	Size: 50	Multiplicity: [0..1]
GML: buildingNumber		CSV: BUILDING_NUMBER
Definition: The building number is a number given to a single building or a small group of buildings, thus identifying it from its neighbours, for example, 44. Building numbers that contain a range, decimals or non-numeric characters do not appear in this field but will be found in the buildingName or the sub-BuildingName fields. Source: Royal Mail		

Address		
Condition: Building Number must be present if Organisation Name or Building Name or PO Box Number are all not present.		
Type: Integer	Size: 4	Multiplicity: [0..1]
GML: dependentThoroughfare		CSV: DEPENDENT_THOROUGHFARE
Definition: In certain places (for example, town centres), there are named thoroughfares within other named thoroughfares (for example, parades of shops on a high street where different parades have their own identity), for example, KINGS PARADE, HIGH STREET and QUEENS PARADE, HIGH STREET. Source: Royal Mail		
Condition: If a Dependent Thoroughfare is present, a Thoroughfare value must also be present.		
Type: GML – LocalisedCharacterString CSV – char	Size: 80	Multiplicity: [0..1]
GML: thoroughfare		CSV: THOROUGHFARE
Definition: A thoroughfare in AddressBase is fundamentally a road, track or named access route on which there are Royal Mail delivery points, for example, HIGH STREET. Source: Royal Mail		
Type: GML – LocalisedCharacterString CSV – char	Size: 80	Multiplicity: [0..1]
GML: postTown		CSV: POST_TOWN
Definition: The town or city in which the Royal Mail sorting office is located which services this record. There may be more than one, possibly several, sorting offices in a town or city. Source: Royal Mail		
Type: GML – LocalisedCharacterString CSV – char	Size: 30	Multiplicity: [1]
GML: doubleDependentLocality		CSV: DOUBLE_DEPENDENT_LOCALITY
Definition: This is used to distinguish between similar thoroughfares or the same thoroughfare within a dependent locality. For example, Millbrook Industrial Estate and Cranford Estate in this situation: BRUNEL WAY, MILLBROOK INDUSTRIAL ESTATE, MILLBROOK, SOUTHAMPTON and BRUNEL WAY, CRANFORD ESTATE, MILLBROOK, SOUTHAMPTON. Source: Royal Mail		

Address		
Condition: If a Double Dependent Locality is present, a Dependent Locality must also be present.		
Type: GML – LocalisedCharacterString CSV – char	Size: 35	Multiplicity: [0..1]
GML: dependentLocality		CSV: DEPENDENT_LOCALITY
Definition: Dependent locality areas define an area within a post town. These are only necessary for postal purposes and are used to aid differentiation where there are thoroughfares of the same name in the same locality. For example, HIGH STREET in SHIRLEY and SWAYTHLING in this situation: HIGH STREET, SHIRLEY, SOUTHAMPTON and HIGH STREET, SWAYTHLING, SOUTHAMPTON. Source: Royal Mail		
Type: GML – LocalisedCharacterString CSV – char	Size: 35	Multiplicity: [0..1]
GML: postcode		CSV: POSTCODE
Definition: A postcode is an abbreviated form of address made up of combinations of between five and seven alphanumeric characters. These are used by Royal Mail to help with the automated sorting of mail. A postcode may cover between 1 and 100 addresses. There are two main components of a postcode, for example, NW6 4DP: • The outward code (or 'outcode'). The first two–four characters of the postcode constituting the postcode area and the postcode district, for example, NW6. It is the part of the postcode that enables mail to be sent from the accepting office to the correct area for delivery. • The inward code (or 'incode'). The last three characters of the postcode constituting the postcode sector and the postcode unit, example, 4DP. It is used to sort mail at the local delivery office. Source: Royal Mail		
Type: GML – CharacterString CSV – char	Size: 8	Multiplicity: [1]
GML: postcodeType		CSV: POSTCODE_TYPE
Definition: Describes the address as a small or large user as defined by Royal Mail. Source: Royal Mail		
Condition: If PO Box number is present Postcode Type must be 'L'.		
Type: PostcodeTypeCode	Size: 1	Multiplicity: [1]

Address		
GML: position	CSV: X_COORDINATE, Y_COORDINATE	
Definition: A value in metres defining the x and y location in accordance with the British National Grid. Source: Contributing Local Authority/Ordnance Survey		
Type: GML – GM_Point CSV – Float	Size: X_COORDINATE (precision, scale) – (8, 2) Y_COORDINATE (precision, scale) – (9, 2)	Multiplicity: [1]
GML: positionLatLong	CSV: LATITUDE, LONGITUDE	
Definition: A value defining the Longitude and Latitude location in accordance with the ETRS89 coordinate reference system. Source: Ordnance Survey		
Type: GML – GM_Point CSV – Float	Size: LATITUDE (precision, scale) – (9, 7) LONGITUDE (precision, scale) – (8, 7)	Multiplicity: [1]
GML: rpc	CSV: RPC	
Definition: Representative Point Code. This code is used to reflect positional accuracy. Source: Contributing Local Authority		
Type: RPCCode	Size: 1	Multiplicity: [1]
GML: country	CSV: COUNTRY	
Definition: The country in which a record can be found.		
Type: CountryCode	Size: 1	Multiplicity: [1]
GML: changeType	CSV: CHANGE_TYPE	
Definition: Type of Record Change – please see Section 4 for more information.		
Type: ChangeTypeCode	Size: 1	Multiplicity: [1]
GML: laStartDate	CSV: LA_START_DATE	
Definition: The date on which the address record was inserted into the database. Source: Contributing Local Authority.		
Type: Date		Multiplicity: [1]

Address		
GML: rmStartDate		CSV: RM_START_DATE
Definition: Date on which the Royal Mail address was loaded into the NAG (National Address Gazetteer – as maintained by Geoplace) hub. Source: Royal Mail		
Type: Date		Multiplicity: [1]
GML: lastUpdateDate		CSV: LAST_UPDATE_DATE
Definition: The date on which any of the attributes on this record were last changed.		
Type: Date		Multiplicity: [1]
GML: class		CSV: CLASS
Definition: Primary classification of the address record. For example, identifying the record as commercial (value of 'C') or residential (value of 'R'). Source: Contributing Local Authority.		
Type: GML – CharacterString CSV – char	Size: 1	Multiplicity: [1]

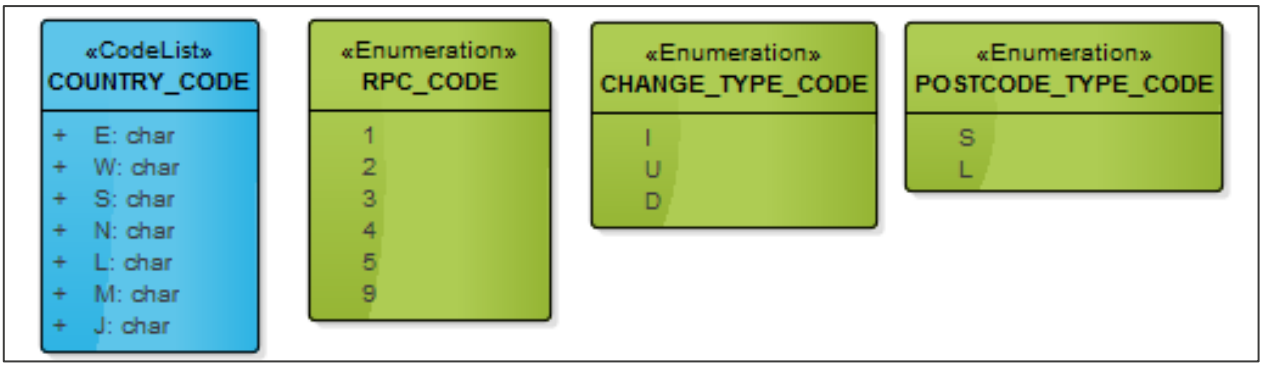
AddressBase supply set

This is not supplied as part of the CSV supply. Please see Model Overviews earlier in this section.

AddressBase supply set	
GML: queryTime	CSV: Not in CSV
Definition: Time the data was extracted from the database.	
Type: DateTime	Multiplicity: [1]
GML: queryChangeSinceDate	CSV: Not in CSV
Definition: The date given as part of a change-only query.	
Type: Date	Multiplicity: [0..1]

2.3 Code lists and enumerations

A code list or enumeration is a controlled set of values which can be used to populate a specific column. The code list and enumeration UML models associated with AddressBase can be found below, with their appropriate descriptions.



CountryCode

This code list is used in association with the attribute *country* / *COUNTRY*. The code list describes which country the address feature falls within.

Code List: CountryCode	
Value	**Description**
E	This record is within England
W	This record is within Wales
S	This record is within Scotland
N	This record is within Northern Ireland
L	This record is within the Channel Islands
M	This record is within the Isle of Man
J	This record is not assigned to a country

RPCCode

This enumeration is used in association with the attribute *rpc* / *RPC*. This enumeration identifies the accuracy value of the coordinates allocated to the address.

Enumeration: RPCCode		
Value	**Description**	**Implementation notes**
1	Central Internal Position	The address seed is **contained within** an OS MasterMap Topography Layer **building** and **within 2.5m of its calculated centre**. *Or* The seed is in the best possible position based on the nature of the premises e.g. Development Land, House Boat, Wind Farm.
2	General Internal Position	The address seed is **contained within** an OS MasterMap Topography Layer **building** but is more than 2.5m away from its calculated centre. *Or* The seed is in an internal position based on the nature of the premises, for example, Development Land, House Boat.
3	Transitional Position	The address seed has been **changed from provisional to live in the last six months**. It has been captured to a high level of positional accuracy, but the **OS MasterMap Topography Layer feature is not yet captured**. *Please note the address seed will only be moved pending any imminent mapping updates.*
4	Street Location	The **address seed is plotted in accordance with the declared street** start or end coordinates. *Please note this is the highest accuracy possible for Street Records.*
5	Postcode Unit Position	The address seed has been **captured to Postcode Unit level**. It will be updated when more information becomes available.
9	Low accuracy – marked for priority review	This address seed has been captured to a **lower level of accuracy and will be updated as a priority** over the coming releases.

PostcodeTypeCode

This enumeration is used in association with the attribute *postcodeType* / *POSTCODE_TYPE*. This enumeration identifies the code used by Royal Mail to describe the user as a small or large user. This is defined for postal services based upon the number of letters delivered to that user.

Enumeration: PostcodeTypeCode	
Value	**Description**
S	A small user, for example, a residential property
L	A large user, for example, a large commercial company

ChangeTypeCode

This enumeration is used in association with the attribute *ChangeType* / *CHANGE_TYPE*. This enumeration identifies the type of change that has been made to a feature. The change type must be set when a feature is inserted, updated or deleted. Please see Section 4 for more information.

Enumeration: ChangeTypeCode	
Value	**Description**
I	Insert
U	Update
D	Delete

Date

There are many *Date* columns within the AddressBase product. Where a type format of *Date* has been used in the above attribute tables the data will be defined in the following format.

Value	Type	Notes
2007-10-24	Date	Date columns will follow the structure: CCYY-MM-DD

3. CSV to GML mapping

The naming of attributes between GML and CSV will be different due to the requirements of the file formats. The attributes are listed together in Section 2, but for convenience the following table maps the CSV attribute name to the GML attribute name.

CSV	GML
UPRN	uprn
OS_ADDRESS_TOID	osAddressTOID
UDPRN	udprn
ORGANISATION_NAME	organisationName
DEPARTMENT_NAME	departmentName
PO_BOX_NUMBER	poBoxNumber
SUB_BUILDING_NAME	subBuildingName
BUILDING_NAME	buildingName
BUILDING_NUMBER	buildingNumber
DEPENDENT_THOROUGHFARE	dependentThoroughfare
THOROUGHFARE	thoroughfare
POST_TOWN	postTown
DOUBLE_DEPENDENT_LOCALITY	doubleDependentLocality
DEPENDENT_LOCALITY	dependentLocality
POSTCODE	postcode
POSTCODE_TYPE	postcodeType
X_COORDINATE	position
Y_COORDINATE	
LATITUDE	positionLatLong
LONGITUDE	
RPC	rpc
COUNTRY	country
CHANGE_TYPE	changeType
LA_START_DATE	laStartDate
RM_START_DATE	rmStartDate
LAST_UPDATE_DATE	lastUpdateDate
CLASS	class

4. COU supplies

As detailed in Section 1.2, AddressBase is available as a full or COU supply.

A COU supply of data contains records or files that have changed between product refresh cycles. The primary benefit in supplying data in this way is that data volumes are smaller therefore reducing the amount of data that requires processing when compared to a full supply.

COU data enables a user to identify three types of change:

1. Deletes (CHANGE_TYPE 'D') are objects that have ceased to exist in your AOI since the last product refresh.

2. Inserts (CHANGE_TYPE 'I') are objects that have been newly inserted into your AOI since the last product refresh.

3. Updates (CHANGE_TYPE 'U') are objects that have been updated in your AOI since the last product refresh.

4.1 Non-geographic chunked COU

A COU file for non-geographic chunked data can be identified by its naming convention as highlighted in Section 1.2.

Any change record will be provided as a full record with the appropriate change type, as listed above.

4.2 Geographic chunked COU (tile-based)

A geographic chunked COU is not supplied as per the non-geographic chunked COU outlined above. Its file naming convention can be found in Section 1.2. If a single record has changed within a specified 5km tile, the entire 5km tile containing all features will be supplied. This means the user will need to remove all features that previously existed in the provided tile(s) and insert the entire new tile(s) in its place.

4.3 Archiving

When users are deleting, inserting or updating features, it is up to the user to consider their archiving requirements. If deleted records are important to your business requirements, you must take appropriate action to archive previous records.

5. Example record

The following section provides example records for both the CSV and GML supplies. Please note that the data given is to provide an example only and is not to be used as accurate data.

5.1 CSV supply

5.1.1 Original feature – AddressBase CSV

1001000779917,"osgb1000002283010753",4201646,"","", "","","","",166,"","LLANDAFF ROAD","CARDIFF","","","CF11 9PX","S",316348.00,177163.00, 50.7268511, -3.5366289, 1,"E","I",2001-05-10,2001-05-10,2007-08-29,"R"

5.1.2 COU feature – AddressBase CSV

Changed fields are highlighted in red.

1001000779917,"osgb1000002283010753",4201646,"","", "","","","",166,"","LLANDAFF ROAD","CARDIFF","","","CF11 9PX","S",316348.00,177163.00, 50.7268511,- 3.5366289, 2,"E","U",2001-05-10,2001-05-10,2010-06-04,"R"

5.2 GML supply

5.2.1 Original feature – AddressBase GML

Please note how not all attributes are provided where the field is null.

<abs:addressMember>
<abs:Address gml:id="uk.addressbase.uprn.100040205844">
<abs:uprn>100040205844</abs:uprn>
<abs:osAddressTOID>osgb1000002274362298</abs:osAddressTOID>
<abs:udprn>8782432</abs:udprn>
<abs:subBuildingName xml:lang="en">FLAT C</abs:subBuildingName>
<abs:buildingName xml:lang="en">PEMBROKE HOUSE</abs:buildingName>
<abs:buildingNumber>4</abs:buildingNumber>
<abs:thoroughfare xml:lang="en">BYSTOCK TERRACE</abs:thoroughfare>
<abs:postTown xml:lang="en">EXETER</abs:postTown>
<abs:postcode>EX4 4HY</abs:postcode>
<abs:postcodeType>S</abs:postcodeType>
<abs:position>
<gml:Point srsName="urn:ogc:def:crs:EPSG::27700" gml:id="uk.addressbase.uprn.p.100040205844">
<gml:pos>291640.00 93040.00</gml:pos>
</gml:Point>
</abs:position>
<abs:positionLatLong>
<gml:Point srsName="urn:ogc:def:crs:EPSG::4258" gml:id="uk.addressbase.uprn.pl.100040205844">
<gml:pos>50.7268511 -3.5366289</gml:pos>

```
</gml:Point>
</abs:positionLatLong>
<abs:rpc>1</abs:rpc>
<abs:country>E</abs:country>
<abs:changeType>I</abs:changeType>
<abs:laStartDate>2001-04-04</abs:laStartDate>
<abs:rmStartDate>2001-04-04</abs:rmStartDate>
<abs:lastUpdateDate>2001-04-04</abs:lastUpdateDate>
<abs:class>R</abs:class>
</abs:Address>
</abs:addressMember>
```

5.2.2 COU feature – AddressBase GML

Changed fields are highlighted in red.

```
<abs:addressMember>
<abs:Address gml:id="uk.addressbase.uprn.100040205844">
<abs:uprn>100040205844</abs:uprn>
<abs:osAddressTOID>osgb1000002274362298</abs:osAddressTOID>
<abs:udprn>8782432</abs:udprn>
<abs:subBuildingName xml:lang="en">FLAT C</abs:subBuildingName>
<abs:buildingName xml:lang="en">PEMBROKE HOUSE</abs:buildingName>
<abs:buildingNumber>4</abs:buildingNumber>
<abs:thoroughfare xml:lang="en">BYSTOCK TERRACE</abs:thoroughfare>
<abs:postTown xml:lang="en">EXETER</abs:postTown>
<abs:postcode>EX4 4HY</abs:postcode>
<abs:postcodeType>S</abs:postcodeType>
<abs:position>
<gml:Point srsName="urn:ogc:def:crs:EPSG::27700" gml:id="uk.addressbase.uprn.p.100040205844">
<gml:pos>291640.00 93040.00</gml:pos>
</gml:Point>
</abs:position>
<abs:positionLatLong>
<gml:Point srsName="urn:ogc:def:crs:EPSG::4258" gml:id="uk.addressbase.uprn.pl.100040205844">
<gml:pos>50.7268511 -3.5366289</gml:pos>
</gml:Point>
</abs:positionLatLong>
<abs:rpc>2</abs:rpc>
<abs:country>E</abs:country>
<abs:changeType>U</abs:changeType>
<abs:laStartDate>2001-04-04</abs:laStartDate>
<abs:rmStartDate>2001-04-04</abs:rmStartDate>
<abs:lastUpdateDate>2010-06-04</abs:lastUpdateDate>
<abs:class>R</abs:class>
</abs:Address>
</abs:addressMember>
```