

# **POST LOCATOR FROM GLOBAL MAPPING**

**PLEASE NOTE THIS DATA CONTAINS NO INFORMATION  
FOR THE BT (NORTHERN IRELAND) POSTCODE.**

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## **DATA OVERVIEW**

Post Locator is a dataset supplied by the XYZ Digital Map Company, the source data is Code-point Open with the following fields added.

- Country Name
- NHS Regional Office Name
- NHS Authority Name
- Local Authority Name
- Administrative Ward Name
- Latitude Value
- Longitude Value

Post Locator provides National Grid coordinates for each unit postcode in Great Britain. The data source for Post Locator is Gridlink, which consists of ADDRESS-POINT, Boundary-Line and Land-Line® data; Royal Mail's Postcode Address File (PAF®) and Postzon® products; and National Health Service (NHS) and administrative area codes provided by ONS.

ADDRESS-POINT contains postal address data for approximately 26 million postal delivery points. These delivery points may be premises that are shown in Land-Line data such as buildings, or they might be features that do not form part of the Land-Line specification such as PO boxes, caravan parks, buildings under railway arches, temporary buildings and houseboats. All unit postcodes in PAF, which have valid and current postal delivery points, will be in Post Locator.

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## **BASIC PRINCIPLES**

- Each unit postcode will be allocated a National Grid reference (NGref) of a point that falls within the notional extent of the unit postcode – there may be a small number of instances where coordinates cannot be allocated.
- Multiple postcodes in a single block of flats or offices will share one NGref.
- Administrative area codes are allocated using the Boundary-Line polygon that the CPLC falls within; currency is that of the latest available Boundary-Line data. Where addresses in a postcode fall in two or more administrative areas, only the codes for the area in which the CPLC falls are given.  
NHS codes are allocated using the premise that areas are always supersets of administrative areas.

### **Post Locator location coordinate (PLLC)**

Post Locator provides an NGref, to a resolution of 1 metre, for each unit postcode in Great Britain, and is known as the PLLC. A PLLC is normally allocated to a point that falls within the extent of the unit postcode.

The point is given the ADDRESS-POINT coordinates of the nearest delivery point to the calculated mean position of the delivery points in the unit. A lower positional quality PLLC will be allocated to unit postcodes awaiting a surveyed position, or which relate to addresses that will not have a surveyed position on Land-Line data.

Where several unit postcodes apply to one surveyed position, for example, a block of flats or offices, there is an identical PLLC for each. There may be occurrences where the position of the PLLC is distorted by the erroneous allocation by Royal Mail of a postcode to an address outside the contiguous geographical extent of that postcode.

These distortions may also affect the allocation of NHS and administrative area codes, and/or the size or extent of a postcode polygon.

Such occurrences, when discovered or notified to Ordnance Survey by customers, will be referred to Royal Mail for possible improvement.

### **Positional quality indicator (PQI)**

**The importance of checking the PQI, to establish PLLC positional quality, cannot be over emphasised.**

It indicates the positional accuracy of the Post Locator coordinates. There are seven PQI values for the positional quality of PLLCs. The order shown indicates the level of quality associated with the PQI, PQ10 is the most accurate and PQ90 the least. The PQI assigned to the PLLC will depend on the coordinates available in ADDRESS-POINT to generate the PLLC. Those derived from addresses with a PQ3 in ADDRESS-POINT will therefore be assigned a PQ10 in Post Locator.

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**PQI Description of source ADDRESS-POINT data**

10 Within the building of the matched address closest to the postcode mean determined automatically by Ordnance Survey.

20 As above, but determined to visual inspection by GROS.

30 Approximate to within 50 m of true position (postcodes relating to developing sites may be within 100 m true position).

40 The mean of the positions of addresses previously matched in ADDRESS-POINT but which have subsequently been deleted or recoded (very rarely used).

50 Estimated position based on surrounding postcode coordinates, usually to 100 m resolution, but 10 m in Scotland.

60 Postcode sector mean (direct copy from ADDRESS-POINT) – mainly PO boxes.

See glossary for additional information.

90 No coordinates available.

**Administrative and health authority codes**

Administrative and health authority codes are those used by ONS. Allocation of codes to postcode is by point-in-polygon comparison against Boundary-Line data.

In the case of unitary authorities, 00 is given for administrative county; the authority code appears as the district code.

Where a district or unitary authority is divided into electoral districts, the code appears as the ward code. Postcodes with a PQI of 90 or 60 are not allocated codes.

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## **QUALITY STATEMENTS**

### **Lineage – where does the data come from?**

Post Locator is derived from Gridlink data – ADDRESS-POINT, which was initially created from a comparison of the Royal Mail PAF with Land-Line and OSCAR® datasets from Ordnance Survey and administrative and national health area codes used by ONS, but allocated using Boundary-Line data.

### **Currency – how up to date is the data?**

Currency is a measure of the real-world change included in Code-Point. Monthly postcode updates from the Royal Mail Postzon and PAF, together with improvements derived from Ordnance Survey field activity, are included in each version of Post Locator.

### **Positional accuracy – is it in the right place?**

Each PLLC is coordinated on the National Grid, with eastings and northings quoted to a resolution of one metre. The accuracy of each unit postcode coordinate pair is defined by the PQI, which provides a quality statement of that Post Locator record.

### **Attribute accuracy – are the attribute values correct?**

The representation of postcode attributes is checked as part of Royal Mail maintenance of PAF and by Ordnance Survey when coordination and quality assurance of ADDRESS-POINT is carried out during field survey activity.

### **Logical consistency – is the data structure correct?**

Logical consistency is a measure of the degree to which Post Locator data agrees with its specified structure. Data is monitored to ensure that attributes are present in the correct format and in valid combinations.

### **Completeness – is it all there?**

Post Locator contains coordinates for all available unit postcodes supplied to Ordnance Survey from the Royal Mail PAF. Resources are directed towards continually improving attribute and positional accuracy. Deleted postcodes are not included. Errors and omissions which are identified by customers can be referred to Ordnance Survey for investigation and, where appropriate, onward notification to Royal Mail.

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## **DATA FIELDS**

### **\_COL1 (Postcode)**

Contains elements for postal area, district, sector and unit. See Postcode in this chapter.

### **\_COL2 (PQI)**

Positional Quality Indicator - Indicates the source of the ADDRESS-POINT data indicator used and hence the quality of the coordinates provided for each record. It is determined by the best available data in ADDRESS-POINT.

### **\_COL3 (PLLC\_Grid\_East)**

Distance in metres east of National Grid origin.

### **\_COL4 (PLLC\_Grid\_North)**

Distance in metres north of National Grid origin.

### **\_COL5 (Country\_Code)**

Code used by ONS to identify the country in which the Post Locator georeference lies.

### **\_COL6 (Country\_Name)**

Country Name

### **\_COL7 (NHS\_Reg\_code)**

National Health Service regional health authority code

Region in which PPLC falls.

### **\_COL8 (NHS\_Reg\_name)**

NHS Regional Office Name

### **\_COL9 (NHS\_Auth\_code)**

National Health Service health authority code

Area in which PPLC falls.

### **\_COL10 (NHS\_Auth\_Name)**

NHS Name

### **\_COL11 (Admin\_County\_code)**

County in which PPLC falls.

### **\_COL12 (Admin\_District\_code)**

District in which PPLC falls.

### **\_COL13 (Local\_Authority\_name)**

Authority Name

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**\_COL14 (Admin\_Ward\_code)**

Administrative ward code

Ward in which PPLC falls.

**\_COL15 (Admin\_Ward\_name)**

Ward Name

**\_COL16 (Longitude)**

Longitude

**\_COL17 (Latitude)**

Latitude

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## **POST LOCATOR GLOSSARY**

### **ADDRESS-POINT**

An Ordnance Survey text data product which relates Royal Mail Postcode Address File (PAF) addressed properties within Great Britain to the National Grid.

### **PLLC (Post Locator location coordinate)**

A National Grid reference for each unit postcode. It is a two-dimensional coordinated point to a resolution of one metre. Coordinates are attributed from ADDRESS-POINT using an accuracy hierarchy.

### **Country code**

The code used by Office of National Statistics to indicate the country in which the Post Locator georeference lies. This has replaced the PAF update date field.

Country Code

England 064

Scotland 179

Wales 220

N Ireland 152

### **Gridlink**

Gridlink is the name given to a joined-up government initiative involving Royal Mail, the Office for National Statistics, the General Registry Office (Scotland), Ordnance Survey (Northern Ireland) and Ordnance Survey. All these organisations are involved in the georeferencing of postcodes and the relating of postcodes to administrative and National Health areas and so on.

### **Inward code or incode**

See postcode.

### **Land-Line data**

The Ordnance Survey's definitive product range of large-scale maps in digital form. Land-Line has a vector (point and line) structure which collectively forms 36 feature codes with a further 27 feature codes in Land-Line.Plus<sup>®</sup>, representing an accurate and detailed representation of the real world.

### **National Grid reference (NGref)**

The National Grid provides a unique reference system that can be applied to all Ordnance Survey maps of Great Britain. The map of Great Britain is covered by 100 km by 100 km grid squares, with the origin lying to the west of the Isles of Scilly. When a National Grid reference is quoted, the easting (left to right direction) is always given before the northing (upwards direction).

A National Grid reference (to one metre) will identify the spatial position of the PPLC.

### **Outward code or outcode**

See postcode.

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### **PAF (Postcode Address File)**

The PAF was created when all the separately held information was assembled and stored on a Royal Mail central computer system. PAF now contains the postal addresses and postcodes of approximately 26 million delivery points in Great Britain, including approximately 170 000 large users.

### **Postcode**

An abbreviated form of address made up of combinations of between five and seven alphanumeric characters. A postcode may cover between 1 and 100 addresses. The average number of addresses per postcode is 15.

There are two main components of a postcode:

The outward code (also called outcode). The first two to four characters of the postcode constituting the postcode area and the postcode district. 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 (also called incode). The last three characters of the postcode constituting the postcode sector and the postcode unit. It is used to sort mail at the local delivery office.

### **Postcode area**

An area given a unique alphabetic coding by Royal Mail to facilitate the delivering of mail. The area is identified by one or two alpha characters at the start of the full postcode, the letters being derived from a town, city or district falling within the postcode area. There are at present 120 postcode areas in Great Britain, for example, SO for Southampton, MK for Milton Keynes, B for Birmingham or W for London West. The postcode area code constitutes the first part of the outward code.

### **Postcode district**

A sub-area of the postcode area, specified by the character substring within the first half of a full postcode, which may be numeric, alphabetic or alphanumeric; for example, 42 from MK42 6GH or 1A from W1A 4WW. There are approximately 2 800 postcode districts in Great Britain.

Note: There are certain non-geographic districts. In these instances a district code is allocated to cover all large users in the postcode area.

### **Postcode sector**

A sub-area of postcode district, whose area is identified by the number third from the end of a full postcode. There are approximately 9 000 postcode sectors in Great Britain. An example of a postcode sector code is 3 from GU12 3DH.

### **Postzon**

A file marketed by Royal Mail that allocates a National Grid reference to each postcode unit. This coordinate is derived from a 100-metre square that contains the first of the range of addresses that form the unit postcode.

### **Unit postcode**

See postcode.

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