

1. INTRODUCTION

GeoPoint XT provides the geographic position for over 1.7 million Postcodes (e.g. HG1 5AW) in the UK to an accuracy of up to 1 metre. The co-ordinates and positional quality of the postcodes are sourced from the Ordnance Survey's Code-Point™. Further enhancements have been applied to the product Geoplan to make the Geopoint XT product.

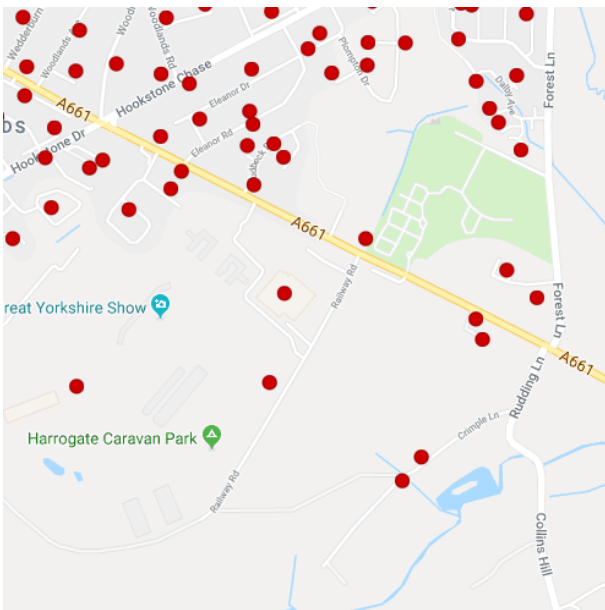
With each co-ordinated point, GeoPoint XT includes:

Information about the number and type of postal delivery points in the postcode; a status flag which indicates the positional quality of the point; the National Health Service area code and Local Government Ward codes.

GeoPoint XT provides a nationally consistent Postcode reference, and is a standard link between databases and Geographical Information Systems (GIS). The dataset forms a comprehensive base of geographically located data, which can be used in a wide range of applications. For example, this dataset is the ideal product for analysing customer distribution, lifestyle analysis, proximity analysis, locating retail outlets, accurate map navigation, and the display and analysis of spatial classification systems at Full Postcode level.

If you have any questions relating to the information in this document, please contact Geoplan Support on +44 (0)1423 722719, or email support@geoplan.com. The Support Team is available Monday – Friday, 9.00am – 5.00pm GMT, excluding UK public holidays.

2. IMAGES



3. DATA

Layer Name	Total Records
GeoPoint XT	Approx. 1,750,000

Source – Ordnance Survey/ Geoplan

Recency – Updated quarterly

Geographical Coverage and Accuracy – UK (excluding Postcode Areas IM, GY, JE)

Projection – OSGB, WGS84 and other projections available on request

Available Formats – SHP, TAB, MIF, CSV, TXT and other formats available on request

Layer Type – Point layer

Attributes –

Attribute Name	Example
GEO_UNIT	HG 11AA
COM_UNIT	HG1 1AA
GEO_SUB	HG 11A
COM_SUB	HG1 1A
GEO_SECT	HG 11
COM_SECT	HG1 1
GEO_DIST	HG 1
COM_DIST	HG1
POSTAREA	HG
POS_QUAL	10
X_COORD	430142
Y_COORD	455387
USER	L
DELR	0
DELN	0
DELL	1
DELALL	1
NHS	Q32
NHS_R	Y51
PO_BOX	N
COUNTRY	064
COUNTY	
DISTRICT	
WARD	36UDHA
DQ	1
MP	1
UM	0

POS_QUAL

The positional quality indicator (PQI) is a flag to indicate the positional accuracy of the coordinates allocated to each postcode record.

The importance of checking the PQI, to establish CPLC (Code-Point location coordinate) positional quality, cannot be overemphasised.

It indicates the positional accuracy of the Code-Point coordinates. There are seven PQI values for the positional quality of CPLCs. 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 CPLC will depend on the coordinates available in ADDRESS-POINT to generate the CPLC.

All postcodes are to 1 m resolution, but the data at source will seek to provide the most accurate coordinates according to the hierarchy detailed in the following table:

Layer Name	Total Records
10	Automatically calculated to be within the building of the matched address closest to the postcode mean.
20	As for status value 1, except by visual inspection of Land-Line maps.

30	Approximate to within 50 m of true position.
40	Postcode unit mean – (mean of matched addresses with the same postcode, but not snapped to a building).
50	Postcode imputed by ONS by reference to surrounding known postcodes.
60	Postcode sector mean – mainly PO boxes.
80	Postcode terminated. No postcodes of this type will be provided by Gridlink, nor should they be provided to Gridlink. Consortium members may wish to hold this information for historical purposes. The accuracy of the data is as indicated by its status value immediately prior to its termination.
90	No coordinates available.

Geopoint XT provides an grid reference, to a resolution of 1 metre, for each postcode unit in Great Britain and Northern Ireland, and is known as the CPLC. A CPLC is normally allocated to a point that falls within the extent of the postcode unit. 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 CPLC will be allocated to postcode units awaiting a surveyed position, or which relate to addresses that will not have a surveyed position.

Where several postcode units apply to one surveyed position, for example, a block of flats or offices, there is an identical CPLC for each. However, there may be instances where the CPLC position is imprecise or approximate due to the manual allocation by Royal Mail of a postcode outside the recognised geographical extent of that postcode.

When discovered or notified to Ordnance Survey these will be referred to Royal Mail for possible improvement.

NHS_R

This is the National Health Service Regional Authority Geopoint XT falls within.

COUNTRY

The code used by Office of National Statistics to indicate the country in which the Geopoint XT geo-reference lies. This has been updated with the new statistical codes.

DQ:

Number of matched addresses in the postcode unit of the same positional quality in ADDRESS-POINT as the PQI for that postcode in Code-Point, provided that the Code-Point record has a PQI value of 10 or 20. Not in BT data for Northern Ireland.

M

Number of PQ3 ADDRESS-POINT delivery points in buildings or building subdivisions, after exclusion of duplicated coordinate pairs. Not in BT data for Northern Ireland or where PQI is 20 in Scotland.

An address, resulting from a match between the Land-Line address data and the PAF, which has been allocated a coordinate position. The match may be a result of either manual or automatic matching, the latter encompassing both full and fuzzy logic matching.

UM

Number of addresses awaiting improvement to PQ3 ADDRESS-POINT. Not in BT data for Northern Ireland or where PQI is 20 in Scotland.

4. DATA HEALTH

Data Health

Green

- Resolution of up to 1 metre
- Updated quarterly
- Nationally consistent Postcode reference



5. LICENSE INFORMATION

License type- Annual

Update frequency – Updated quarterly

6. FURTHER INFORMATION

Data Specification

Header Record	Description	Maximum Field Size
GEO_UNIT	Geoplan Postcode	7
COM_UNIT	Commercial Postcode	8
GEO_SUB	Geoplan Postcode Subsector	6
COM_SUB	Commercial Postcode Subsector	7
GEO_SECT	Geoplan Postcode Sector	5
COM_SECT	Commercial Postcode Sector	6
GEO_DIST	Geoplan Postcode District	4
COM_DIST	Commercial Postcode District	4
POSTAREA	Commercial Postcode Area	2
POS_QUAL	Positional Quality Indicator (providing information about the accuracy of the postcode location).	2
X_COORD	X Coordinate	Int
Y_COORD	Y Coordinate	Int
USER	Postcode Delivery Type	2
DELR	Number of Residential Delivery Points (Addresses)	Int
DELN	Number of Non Residential Delivery Points (Addresses)	Int
DELL	Number of Large User Delivery Points (Addresses)	Int
DELALL	Total number of Delivery Points (Addresses)	Int
NHS	NHS Health Authority Code	9
NHS_R	NHS Regional Health Authority Code	9
PO_BOX	PO Box Indicator (a flag that indicates whether the postcode contains only PO Boxes)	1
COUNTRY	Country code	9
COUNTY	County Code	9
DISTRICT	District Code	9
WARD	Ward Code	9
DQ	Number of delivery points in the Addressing data with the same 'positional quality indicator' as that allocated to the Code-Point postcode record. Delivery points – used to create the CPLC where the PQI value is 10 or 20.	Int
MP	Number of delivery points in the Addressing data not allocated accurate coordinates. Matched address premises.	Int
UM	Unmatched address premises.	Int

Content Information

Geoplan Improvements over OS Codepoint

Geoplan have carried out the following processing to the raw OS Codepoint file to generate a client user friendly product. Details of these differences are found below:

- Postcode reformatted into two forms – commercial and fixed length – useful for matching against other Postcode data.

- Postcode aggregated to form the full postcode to the different levels of postcode right up to Postcode Area into different variables – useful for aggregating or matching of data.
- The delivery count information and Postcode Type attributes have been re formatted from the OS Codepoint to provide 3 types of delivery type in an easily digestible form – this creates consistency with other Geoplan products and also make analysis easier and quicker.
- DELR – residential
- DELN - Non residential (small businesses in terms of postal usage)
- DELL – Large users (large businesses in terms of postal usage)
- DELALL – Total count
- USER – Id for each postcode "R", "N" "NR" or "L"
- Header records added to each of the variables – makes it easier to identify what each of the variables are without having to rely on the documentation.
- Grid references for all BT Postcodes have been converted from the Irish Coordinates to British National Grid so it can be mapped together with the British mainland. This has the benefit of both geographical areas of Northern Ireland and Great Britain (England, Wales and Scotland) being analysed at the same time where the GIS systems cannot cope with two different projections and helps reduce the amount of analysis time if dealing with two different "units" when distances queries are being investigated.
- Administrative codes from the OS Codepoint have been concatenated to provide a full single administrative code – this allows easier matching against other data.
- Geoplan provide a range of standard formats so no conversion is required – this saves time in that the data is ready to be used in the most common GIS or database products.
- Geoplan combine all 121 Postcode Areas into a single file - this saves time so the user can access all the data in one instance and reduces the need for any pre-set up by end users.

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