

## 1. INTRODUCTION

Geopoint XT provides the geographic position for over 1.7 million Postcodes (e.g. HG1 5AW) in the UK to an accuracy 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 (which is extra information form the standard Geopoint XT product.

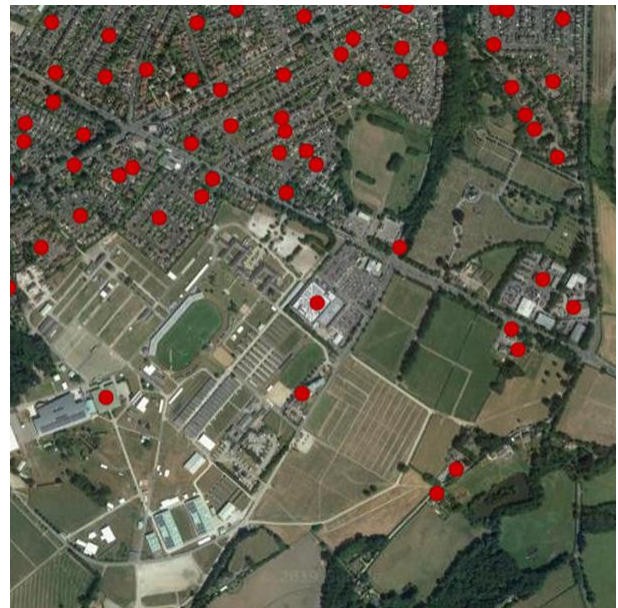
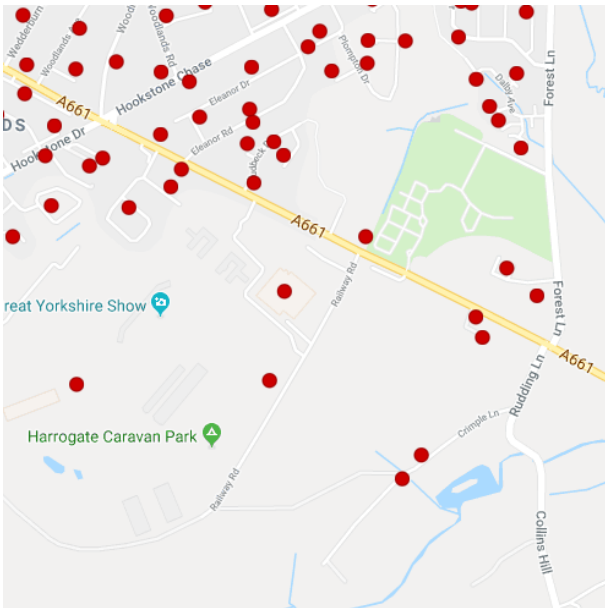
With each co-ordinated point, GeoPoint XT includes:

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, Royal Mail Postown, County 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 for a wide range of applications. For example, this dataset is the ideal product for analysing customer distribution, 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](mailto: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** – Great Britain (England, Scotland & Wales) and Northern Ireland.

**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	Format	Example
GEO_UNIT	char(7),Indexed	HG 11AA
COM_UNIT	char(8),Indexed	HG1 1AA
GEO_SUB	char(6)	HG 11A
COM_SUB	char(7)	HG1 1A
GEO_SECT	char(5)	HG 11
COM_SECT	char(6)	HG1 1
GEO_DIST	char(4)	HG 1
COM_DIST	char(4)	HG1
POSTAREA	char(2)	HG
POS_QUAL	char(3)	10
X_COORD	integer	430142
Y_COORD	integer	455387
USER	char(3)	L
DELR	integer	0
DELN	integer	0
DELL	integer	1
DELALL	integer	1
NHS	char(9)	S08000020
NHS_R	char(9)	E19000003
PO_BOX	char(9)	S92000003
COUNTRY	char(9)	E19000003
COUNTY	char(9)	S12000033
DISTRICT	char(9)	S13002842
WARD	char(9)	S08000020
DQ	integer	1
MP	integer	1
UM	integer	0

### 4. DATA HEALTH

#### Data Health

Green

- Resolution of up to 1 metre for all of Great Britain and Northern Ireland, up to 100m for Jersey, Guernsey and Isle of Man
- Updated quarterly
- Nationally consistent Postcode reference

### 5. LICENSE INFORMATION

**License type-** Annual

**Update frequency –** Updated quarterly

### 6. FURTHER INFORMATION

### 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.
90S	Postcode has been located within the appropriate Postcode Sector Boundary
90D	Postcode has been located within the appropriate Postcode District Boundary
90A	Postcode has been located within the appropriate Postcode Area Boundary
90	No coordinates available.

There are potentially 11 PQI values for the positional quality in this product. The order shown indicates the level of quality associated with the PQI, PQ10 is the most accurate and PQ90 the least. PQI values 90A, 90D, and 90S may be more accurate than some of the other flags that are available in some instances, but due to its validation process for these Postcodes it is simply matched by the Postcode geography (90A = Postcode Area, 90D = Postcode District, and 90S = Postcode Sector) it has been matched to.

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.

### COUNTRY, COUNTY, DISTRICT AND WARD

This has now been changed to reflect the statistical code changes introduced by ONS. See Appendix for more details.

## 7. 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
- 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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