ORDNANCE SURVEY GB

POINTS OF INTEREST
TECHNICAL SPECIFICATION

Version history

Version	Date	Description
4.0	01/09/2019	Specification change
4.1	30/09/2019	Amendment to the specification table and examples
4.2	12/2020	Specification change – Removal of verified address
4.3	08/2021	Change in media format

Purpose of this document

This document provides information about and insight into the Points of Interest product and its potential applications. For information on the contents and structure of Points of Interest, please refer to the Product Information.

The terms and conditions on which Points of Interest is made available to you and your organisation are contained in that Ordnance Survey customer contract. Please ensure your organisation has signed a valid current customer contract to be able to use Points of Interest.

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Contact details

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

Contents

1.   Introduction

The Points of Interest product is a comprehensive location-based directory of all public and privately-owned businesses, educational institutions and leisure services in Britain. It contains over four million records, sourced and quality-checked from over a hundred leading listing suppliers. It's updated four times a year, so you'll always be working with current information.

Media formats

Points of Interest customer orders are currently supplied via secure URL. The current size of a full supply is about 1 Gb.

Glossary

Please refer to Annex A: Glossary as you work through this document.

Feedback

Ordnance Survey welcomes all feedback. If you have any comments or require further information, please make contact using the details above.

2. Using Points of Interest

Requirements

Points of Interest is a data product and does not include software for analysis, but it can be used with a variety of programs and applications. Points of Interest can be loaded onto any desktop or laptop PC that has a program capable of importing a delimited text file. If using a geographical information system (GIS), customers are encouraged to contact the system vendor to establish actual system requirements.

Supply definition

Points of Interest is only available for Great Britain (England, Scotland and Wales) and is supplied via secure URL.

Points of Interest is only available in pipe delimited text file format.

File sizes

A national (Great Britain) set of Points of Interest is currently approximately 1 Gb but the size can change for each release.

Points of Interest directory structure

The directory structure of secure URL is shown below:
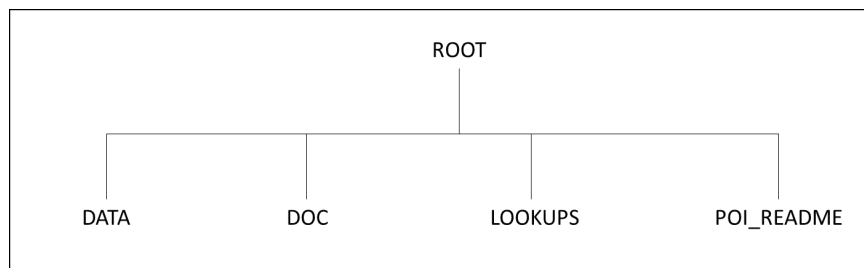
ROOT directory

The ROOT directory will contain the following ASCII text file:

• POI_README.txt

The ROOT directory will contain the following directories:

• DATA
• DOC
• LOOKUPS

DATA directory

The DATA directory will contain the data file for your order:

• pointx_v2_CustomerAccountNumber_CustomerAccountName_Mmmyy or pointx_v2_National Coverage_Mmmyy with exclusions where relevant.

DOC directory

- CLASSIFICATION_SCHEME_V_X_X.pdf – POI classification.

- DATA_SUPPLIES_MMMYY.pdf – background notes on the data suppliers.

- DESC_CLASS_REPORT_MMMYY.pdf – descriptive class reporting documentation.

- DISCCARE.txt – information on the care of DVDs.

- KEYWORDS_DOCUMENTATION.pdf – using the keywords information.

- POI_USERGUIDE_V_X_X_MMMYY.pdf – the POI User Guide.

- PRODUCT_AMENDMENTS_MMMYY.txt – product amendment information.

- RELEASE_REPORT_MMMYY – counts for the number of points per classification level.

- SIC_DOCUMENTATION_V_X_X_MMMYY – using the POI class to SIC lookup.

The DOC directory may also contain documentation relating to the specification of the requested data format or additional documentation specific to that supply.

LOOKUPS directory

The LOOKUPS directory will contain the following ASCII text files:

- ADMINISTRATIVE_BOUNDARY_LOOKUP.txt – the administrative boundary lookup.

- KEYWORDS.txt – keywords information.

- POI_CATEGORIES.txt – the categories lookup within the classification.

- POI_CLASSIFICATIONS.txt – the classifications lookup.

- POI_CLASSIFICATION_V_X_X.mdb – the relationship between group, category and classification.

- POI_GROUPS.txt – the groups lookup within the classification.

- POI_CLASS_TO_SIC_LOOKUP.txt – the POI classes linked to the SIC.

- POSITIONAL_ACCURACY_LOOKUP.txt – the positional accuracy lookups.

The LOOKUPS directory may also include updates to the lookups for a specific release.

3. Pipe delimited text (PDT) file format

3.1 The PDT format

Pipe delimited text format is a text file format, similar in principle to the more common comma separated values (CSV) format. PDT is a de facto standard method for delivering data. PDT has been chosen instead of CSV because some of the attribution may contain commas, for example, within addresses. This is one of the simplest data formats in which to supply data. PDT can be imported and used in most desktop spreadsheet or database applications, as well as within more complex geographical information systems. Once imported, it may be possible, depending on the application, to export to word processing or presentation packages.

3.2 Rules for holding Points of Interest in PDT

Points of Interest information in PDT is held within individual fields. Each field is either textual (can contain letters and/or numbers), for example, 'SO16 0AS', or numeric, for example, '21'. Each field is separated from the next by the ASCII pipe symbol (|), which is a keyboard symbol often found on the backslash key. If the field is textual or should be treated as a character field even when the stored value is a number, then the text is enclosed in double quotes.

4.   Record structure in PDT format

This section describes the features which make up the product, giving the following information about each attribute:

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

Condition: Any 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. These are denoted by:

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

All features are separated by a pipe, in the following order.

4.1   Record structure

Record structure			
Unique Reference Number			
Definition: A numeric identifier that is allocated to, and retained by, an individual record within Points of Interest. Note: Due to the nature of Points of Interest, URNs can change. Points of Interest is concerned with activities and functions at specific locations; these naturally change over time and the URN may also change to reflect this. For example, a church or chapel may be converted into a wine bar or other licensed premise.			
Type: Integer	Double quotes: No	Size: 12	Multiplicity: [1]
Name			
Definition: Name of the organisation or record provided by the data supplier. Where the source of the data does not specify a name for the premises, the activity or function is reported based on the classification.			
Type: Text	Double quotes: Yes	Size: 255	Multiplicity: [1]
PointX Classification Code			
Definition: An eight-digit number that equates to the three levels – Group, Category and Class – of the record. Text type to prevent leading zero loss.			
Type: Text	Double quotes: Yes	Size: 8	Multiplicity: [1]
Feature Easting			
Definition: Easting element of the record's National Grid reference. Allows for six characters followed by one decimal place. This is provided to a resolution of 1 metre or better.			

Record structure			
Type: Double	Double quotes: No	Size: 8 ,1	Multiplicity: [1]

Feature Northing			
Definition: Northing element of the record's National Grid reference. Allows for seven characters followed by one decimal place. This is provided to a resolution of 1 metre or better.			
Type: Double	Double quotes: No	Size: 9, 1	Multiplicity: [1]

Positional Accuracy code			
Definition: A flag for the positional accuracy of the feature. Value of 1–4 only.			
Type: Positional Accuracy look-up	Double quotes: No	Size: 1	Multiplicity: [1]

UPRN			
Definition: The Unique Property Reference Number (UPRN) in Points of Interest represents the value assigned to the related unit of land or property in Ordnance Survey's AddressBase suite of products, where the Points of Interest and AddressBase records have been successfully address-matched.			
Type: Integer	Double quotes: No	Size: 12	Multiplicity: [0..1]

Topographic TOID			
Definition: This is a unique identifier provided on features within the OS MasterMap Topography Layer product, starting with a prefix of 'osgb'. The value will be 'Not Assigned' where a TOID is not provided.			
Type: Text	Double quotes: Yes	Size: 20	Multiplicity: [1]

Topographic TOID Version			
Definition: Identifies the version of the topographic TOID. If the topographic TOID value provided is 'Not Assigned', then the value of the topographic TOID version will be 0 (zero).			
Type: Integer	Double quotes: No	Size: 4	Multiplicity: [1]

USRN			
Definition: The Unique Street Reference Number (USRN) in Points of Interest represents the value assigned to the related road in Ordnance Survey's MasterMap Highways Network product, where the Points of Interest and Highways Network records have been successfully matched.			
Type: Integer	Double quotes: No	Size: 8	Multiplicity: [1]

USRN Match Indicator			
Definition: A flag for the match accuracy of the USRN to Points of Interest feature. Value of 1–3 only.			
Type: USRN Match Indicator look-up	Double quotes: No	Size: 1	Multiplicity: [1]

Distance			
Definition: Distance in metres, to one decimal place, between the Feature Easting and Northing and the USRN. Reported value is to one decimal place. Gives an indication of how far away the feature			

Record structure			
access is from the Highways road network. This distance is to the nearest road, which may not necessarily be the most accessible road.			
Type: Double	Double quotes: No	Size: 8, 1	Multiplicity: [1]
Address Detail			
Definition: Contains the building name or number with a sub-premise and dependant thoroughfare if applicable. The field may be null.			
Type: Text	Double quotes: Yes	Size: 255	Multiplicity: [0..1]
Street Name			
Definition: The name of the thoroughfare if applicable. The field may be null.			
Type: Text	Double quotes: Yes	Size: 255	Multiplicity: [0.1]
Locality			
Definition: The postal town that the feature is located within. For extra clarification, when an address has a dependent locality within it, this will prefix the postal town in the resulting output, with a comma separating the two elements.			
Type: Text	Double quotes: Yes	Size: 255	Multiplicity: [0.1]
Geographic County			
Definition: Populated with the name of the geographic county in which the record's XY coordinates are positioned. If outside the extent of Great Britain, the nearest county name is applied. Examples include 'Lincolnshire', 'Inverness' and 'Gwent'.			
Type: Text	Double quotes: Yes	Size: 50	Multiplicity: [1]
Postcode			
Definition: Postcodes are an alphanumeric abbreviated form of an address. 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. Some addresses may contain the outbound postcode only, for example, 'DN22' or 'L34'.			
Type: Text	Double quotes: Yes	Size: 8	Multiplicity: [1]
Administrative Boundary			
Definition: Populated with the name of the administrative area in which the record's XY coordinates are positioned. If outside the extent of Great Britain, then the nearest administrative area name is applied. Examples include 'Cambridge District', 'City of Derby' and 'Lambeth London Boro'.			
Type: Text	Double quotes: Yes	Size: 60	Multiplicity: [1]
Telephone Number			

Record structure			
Definition: The telephone number associated with a feature. Field is null if not supplied. Text type to prevent leading zero loss.			
Type: Text	Double quotes: Yes	Size: 12	Multiplicity: [0.1]
URL			
Definition: Website associated with a feature. Field is null if not supplied.			
Type: Text	Double quotes: Yes	Size: 255	Multiplicity: [0.1]
Brand			
Definition: Brand name associated with a feature. Field is null if not supplied.			
Type: Text	Double quotes: Yes	Size: 255	Multiplicity: [0.1]
Qualifier Type			
Definition: Linked to qualifier data attribute and states the type of data used in qualifier type, for example, restaurant type. If Qualifier Data is populated, Qualifier Type must have a value.			
Type: Text	Double quotes: Yes	Size: 255	Multiplicity: [0.1]
Qualifier Data			
Definition: Linked to qualifier type attribute and allows reporting of extra information about a feature, for example, 'Indian' or 'Chinese'.			
Type: Text	Double quotes: Yes	Size: 255	Multiplicity: [0.1]
Provenance			
Definition: Name of the data supplier.			
Type: Text	Double quotes: Yes	Size: 255	Multiplicity: [1]
Date of Supply			
Definition: PointX release date in the form DD-MMM-YYYY.			
Type: Text	Double quotes: Yes	Size: 11	Multiplicity: [1]

Code List: Positional Accuracy	
Value	Description
1	Positioned to the address or location, usually within the building footprint.
2	Positioned to an adjacent address or location for non-addressable features.
3	Positioned to the road within the address or location.
4	Positioned within the geographical locality.

Code List: USRN Match Indicator

Value	Description
1	An attribution match between the Point of Interest, the UPRN and the USRN.
2	A spatial match on a named road that appears in the supplied address detail or street name attribute.
3	A spatial match on the nearest road. This may not necessarily be the accessible road.

Fields containing text or alphanumerics will be enclosed by double quotes; the double quotes **have not been included** in the sizes listed in the attribute table above. Numerical fields not starting with a 0 will not contain double quotes.

Fields with null data will appear empty.

Each record will be terminated with a carriage return character (ASCII 13) and a line feed character (ASCII 10).

Examples of Points of Interest records:

Unique Reference Number|Name|PointX Classification Code|Feature Easting|Feature Northing|Positional Accuracy Code|UPRN|Topographic TOID|Topographic TOID Version|USRN|USRN Match Indicator|Distance|Address Detail|Street Name|Locality|Geographic County|Postcode|Administrative Boundary|Telephone Number|URL|Brand|Qualifier Type|Qualifier Data|Provenance|Date of Supply

18857172|"Exeter Service Area"|"01020043"|296775.4|91803.7|1|100041225933|"osgb1000012392251"|7|14201621|1|44|"Exeter Motorway Services Area"|"Sidmouth Road"|"Exeter"|"Devon"|"EX2 7HF"|"Exeter District"|""|"www.moto-way.com"|"Moto Hospitality Limited"|"Restaurant Type"|"Roadside"|"Moto"|"01-MAR-2019"

49934846|"Bowling Green"|"04240290"|294236|92466|1||"osgb1000002062568192"|5|14200920|2|32.2|"Heavitree Pleasure Ground"|"Whipton Lane"|"Heavitree Exeter"|"Devon"|"EX1"|"Exeter District"|""|""|""|""|""|"PointX"|"01-MAR-2019"

133918344|"Car Park"|"10540736"|294433|90098|2||"Not Assigned"|0|14201350|3|6.9|""|""|""|"Devon"|"EX2"|"Exeter District"|""|""|""|""|""|"Ordnance Survey"|"01-MAR-2019"

Annex A: Glossary

Glossary	
Accuracy	The closeness of the results of observations, computations or estimates to the true values or the values accepted as being true. Accuracy relates to the exactness of the result and is the exactness of the operation by which the result is obtained.
Administrative area	A blanket term used by Ordnance Survey to refer to all public administrative areas, specifically local government management and electoral areas.
American Standard Code for Information Interchange (ASCII)	A 7-bit code for encoding a standard character set.
Area	A spatial extent defined by circumscribing lines that form a closed perimeter that does not intersect itself.
Attribute	An attribute is a property of an entity, usually used to refer to a non-spatial qualification of a spatially referenced entity. For example, a name or descriptive code indicating what an entity represents or how it should be portrayed.
Attribute code	An alphanumeric identifier code used in digital map data to describe each feature in terms either of the object surveyed or its representation on the map (or both).
Coordinates	Pairs of numbers, such as an easting and a northing, expressing horizontal distances along original axes. Alternatively, triplets of numbers measuring horizontal and vertical distances.
Data format	A specification that defines the order in which data is stored or a description of the way data is held in a file or record.
Eastings	See rectangular coordinates.
Feature	An item of detail within a map that can be a point and/or symbol, text or line.
Field	A specified part of a record containing a unit of data, such as the date of digitising. The unit of data may be a data element or a data item. Every field has a name and a predefined interpretation.
Geographical information system (GIS)	A system for capturing, storing, checking, integrating, analysing and displaying data that is spatially referenced to the Earth. This is normally considered to involve a spatially referenced computer database and appropriate applications software.
Map scale	The ratio between the extent of a feature on the map and its extent on the ground, normally expressed as a representative fraction, such as 1:1250 or 1:10 000.

Glossary	
Name	The proper name or label of an object (real world) or feature (object abstraction). The descriptive name might consist of one or more text strings or be an attribute of the object or object abstraction.
National Grid	A unique referencing system that can be applied to all Ordnance Survey maps of Great Britain (GB) at all scales. It is used by Ordnance Survey on all post-war mapping to provide an unambiguous spatial reference in Great Britain for any place or entity whatever the map scale. The National Grid is defined by the OSGB36 spheroid.
Northings	See rectangular coordinates.
Object (real world)	A recognisable discrete part of the real world.
Origin	The zero point in a system of rectangular coordinates.
Positional accuracy	The degree to which the coordinates define a point's true position in the world, directly related to the spheroid and/or projection on which the coordinate system is based.
Precision	The exactness with which a value is expressed, whether the value be right or wrong.
Rectangular coordinates	Also known as XY coordinates or as eastings and northings. These are two-dimensional coordinates that measure the position of any point relative to an arbitrary origin on a plane surface (for example, a map projection).
Resolution	A measure of the ability to detect quantities. High resolution implies a high degree of discrimination but has no implication as to accuracy. For example, in a collection of data in which the coordinates are rounded to the nearest metre, resolution is 1 metre, but the accuracy may be ± 5 metres or worse.
Spatial data	Data that includes a reference to a two- or three-dimensional position in space as one of its attributes. It is used as a synonym for geometric data.
Transfer medium	The physical medium on which digital data is transferred from one computer system to another. For example, DVD.