

Spatial data-sets for geographical referencing —

Part 3: Specification for addresses

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Foreword

This Part of BS 7666 has been prepared under the direction of the Information Systems Technology Standards Policy Committee. It has been developed from a draft prepared for IST/36 by the Address Standard Working Party, sponsored by the Local Authorities' Geographic Information Advisory Group through the Local Government Management Board.

BS 7666 comprises three Parts:

- *Part 1: Specification for a Street Gazetteer;*
- *Part 2: Specification for a Land and Property Gazetteer;*
- *Part 3: Specification for addresses.*

Parts 1 and 2 specify references for particular basic items of geographic data, and introduce the requirement for addressing. Part 1 specifies a unique alphanumeric code for a street, and specifies that a street has to be located by a maximum of three location fields. Part 2 specifies a unique alphanumeric code for a basic land and property unit (BLPU) and a reference to a street. This Part of BS 7666 specifies a general address structure.

Addresses are widely used for the following:

- a) to reference particular objects of interest;
- b) to access and deliver to locations;
- c) to aggregate data by spatial location.

The role of address services is extensive and comprises substantial investments and commercial activity.

Details of the background to the development of the specification can be found in the references listed in the bibliography (Annex E).

The most common form of address is the postal address. This is used widely to identify objects that have mail delivery points. The Postcode is a proprietary system, devised by Royal Mail and used by them for the primary purpose of delivering mail and by postal customers to ensure the speedy and accurate delivery of their mail. While postal address and Postcode are used for many additional purposes such as aggregation of spatial data, they apply only to buildings and organizations that receive mail. There are many other objects which also require addressing.

Basic addresses take either of two forms, as follows:

- 1) a description, based on recognizable names of objects, and locations;
- 2) an alphanumeric code which uniquely identifies a real world object and locates it either directly (for example by a grid reference) or indirectly (for example by a street reference number).

This Part of BS 7666 will enable the construction of an address for the purposes of referencing a location for a range of geographic objects and the interchange of address-based data.

It has been assumed in the drafting of this British Standard that the execution of its provisions is entrusted to appropriately qualified and experienced people.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 18, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Section 1. General

1.1 Scope

This Part of BS 7666 specifies a model and structure for an address. The purpose of an address is to provide a description of a real world object by reference to its location within Great Britain. This provides a unique label for the object, so that it may be identified and located. The address is concerned with the labelling of an object, rather than the object itself.

Annex A lists examples of national applications of address-based data classified by major business sectors, including local government, which is both a major user and supplier of address information.

This Part of BS 7666 describes the classes of objects for which an address may be constructed in this way, and provides a means whereby a secondary range of objects may be similarly referenced. These objects are termed addressable objects.

This Part of BS 7666 provides a nationally consistent means of structuring address-based information, by providing definitions for the components of address structures covering entities, objects and their referencing and specifying a standard basic structure in terms of data, definitions, tables, fields and examples. Its application will enable the exchange of address-based data and aggregation of other data related to it. It is not explicitly intended for defining an address for the purposes of postal delivery.

NOTE The Royal Mail postal address format and Postcode structure are used for postal addressing. A postal address is a routing instruction for Royal Mail staff, not a description of geographical or administrative locality. It contains only the minimum information necessary to effect secure delivery. The Postcode is an abbreviated form of the postal address. The maximum dimensions of the postal address and its locations on forms, for the purposes of standardizing its presentation and structure, are specified in ISO 11180.

This Part of BS 7666 is not a specification for a database of addresses.

Annex B gives a list of allowable instances of conurbation names for the purposes of addressing. Annex C gives an extended data model for addresses showing how the Royal Mail address fits in. Annex D gives some example addresses.

1.2 References

1.2.1 Normative references

This Part of BS 7666 incorporates, by dated or undated reference, provisions from other publications. These normative references are made at the appropriate places in the text and the cited publications are listed on the inside back cover. For dated references, only the edition cited applies; any subsequent amendments to or revisions of the cited publication apply to this Part of BS 7666 only when incorporated in the reference by amendment or revision. For undated references, the latest edition of the cited publication applies, together with any amendments.

1.2.2 Informative references

This Part of BS 7666 refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on the inside back cover, but reference should be made to the latest editions.

1.3 Definitions

For the purposes of this Part of BS 7666, the definitions given in BS 7666-1:1993 and BS 7666-2:1994 apply together with the following.

1.3.1 address

a means of referencing an object for the purposes of unique identification and location

1.3.2 addressable object

a real-world object that has a fixed location and may be identified and referenced by means of one or more addresses

NOTE An addressable object may also be identified by a national grid reference. Where a Postcode has been assigned by the Royal Mail, the combination of the current Postcode and house number will also identify an addressable object.

1.3.3 administrative area

a geographic area that may be either:

- a) a highest level local administrative area, which may be either a County, a Metropolitan District or a Scottish Region; or
- b) a conurbation; or
- c) an island or island group.

1.3.4**basic land and property unit**

a fundamental areal unit having homogeneous properties in the context of any required theme such as administrative responsibility or ownership, as specified in BS 7666-2

1.3.5**conurbation**

a large urban area formed where towns have spread and merged

NOTE Conurbations generally correspond to the old Metropolitan Counties. Allowable instances of conurbation for the purposes of addressing are given in Annex B.

1.3.6**designated street name**

a name for a street that has been allocated by a street naming authority

1.3.7**locality**

a neighbourhood, suburb, district, village, estate, settlement or parish that may form part of a town, or stand in its own right within the context of an administrative area

NOTE Where an industrial estate contains streets it is defined as a locality in its own right.

1.3.8**postcode unit**

a group of addressable objects defined by the Royal Mail for the purposes of delivery of mail

1.3.9**primary addressable object**

an addressable object that can be addressed without reference to another addressable object

NOTE Flats or maisonettes within large buildings or tower blocks may be considered as primary addressable objects if the name of the building or tower block does not form a necessary part of the address.

1.3.10**secondary addressable object**

an addressable object that is addressed by reference to a primary addressable object

NOTE A secondary addressable object may be within the same premises, as in the case of a flat within a house. Alternatively, it may be in a different building as in the case of "The Outpatients Department, Addenbrooke's Hospital".

1.3.11**street**

the whole or part of any highway, road, lane, footpath, square, court, alley or passage irrespective of whether it is a thoroughfare or not

1.3.12**street description**

a description, allocated by a street naming authority, used to identify a street that does not have a designated street name

1.3.13**street name alias**

an alternative name used in addition to the designated street name for the exact same street

1.3.14**street number**

a road or route number allocated to a street by the Department of Transport, Scottish Office, Welsh Office or the local highway authority

1.3.15**town**

either:

- a) a city or town that is not a conurbation; or
- b) a suburb of a conurbation that does not form part of another town; or
- c) a London district.

1.3.16**unofficial street name**

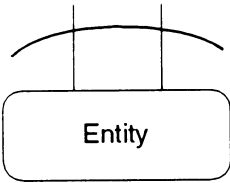
a name by which a street is known, but which has not been designated by a street naming authority

1.4 Conventions

The concepts, terminology and diagramming standards used in this Part of BS 7666 are based on the Structured Systems Analysis and Design Method in accordance with BS 7738 for logical data modelling. Entities are denoted by boxes. Boxes within a box are used to show that one entity is a sub-type of another (super-type). For example, in Figure 3, primary addressable object and secondary addressable object are sub-types of addressable object. Hence both primary addressable object and secondary addressable object inherit the two relationships to address and Postcode unit. The conventions shown in Figure 1 apply in figures to identify relationships.

NOTE If two or more relationships are defined for an entity type, only one relationship can exist at any one time. This is shown by an "exclusion arc" drawn so as to cross the lines representing the relationships that are exclusive.

	One-one	One-many	Many-many
Mandatory	—————	—————<	>—————<
Optional	- - - - -	- - - - -<	>- - - - -<
Optional/ Mandatory	- - - ———	- - - ———<	>- - - ———<



NOTE. An either-or relationship is denoted by the 'exclusive arc' as shown

Figure 1 — Explanation of figure conventions

Section 2. The basis of addresses

2.1 The context for addresses

NOTE 1 Addresses are developed within a context. Great Britain divides into administrative counties and conurbations or, in Scotland, Regions and Islands. Within these are towns and localities. Streets may lie within a locality, a town or a county. A number of different types of real world object may have addresses constructed within this context.

Those real world objects for which an address may be constructed shall be termed addressable objects. An addressable object may have one or more addresses; each such address shall uniquely identify an addressable object.

An addressable object shall be either a primary addressable object or a secondary addressable object. A primary addressable object shall be a single entity that is addressed directly via a street, locality, town or administrative area. Primary addressable objects shall include the following:

- a) uniquely identifiable structures;
- b) basic land and property units (BLPU), as specified in BS 7666-2.

A secondary addressable object shall be addressed via a primary addressable object; it may be a sub-division of a primary addressable object, or it may be related in some way to a primary addressable object, for example by adjacency.

NOTE 2 Primary addressable objects include all buildings occupied by people (for purposes of residence, business or other activity) such as houses, independently accessed and numbered flats, offices, shops, factories, warehouses and public buildings. They usually have a publicly identifiable name tag. Secondary addressable objects include flats forming part of a named or numbered property and factory sub-units. Some types of addressable object, such as street furniture, pumping stations, monuments and public toilets, may be either a primary addressable object or a secondary addressable object.

NOTE 3 There may be application-specific forms of an address, where addressable objects are referenced to a particular geographic referencing system. One such system is the Postcode, which provides a label for a group of addressable objects. Through use of the Postcode, a link between different types of addresses may be made. Royal Mail provides access to a unique referencing system, through the addition of the delivery point suffix in the form of an alphanumeric code. When added to the Postcode, this provides a unique reference for every postal address in the UK. A Postcode does not necessarily represent an address uniquely, but identifies a subset of a delivery route. Postcodes are often used for aggregating other data such as demographics.

NOTE 4 The relationships between the entities defined in the three Parts of this standard are shown diagrammatically in Figure 2.

