BS7666 explained

Your unique key to definitive property addressing

Fact sheet

What is BS7666?
To facilitate the creation of the NLPG, a British Standard (BS7666 Spatial datasets for geographical referencing) has been created. The standard comprises a number of parts covering Street Gazetteers, Land and Property Gazetteers and Delivery Points. An operational BS7666 (parts 1 and 2) compliant LLPG and LSG will become an essential prerequisite for ongoing involvement in the NLPG and NSG once it has been created.

BS 7666 has been through a number of revisions since its inception in 1994. The last review took place in 2005/2006.

What does it do?
BS7666 specifies a standard format for holding details on every property and street. The standard does not differentiate between commercial or residential properties, between occupied, developed or vacant land, between urban or rural or between postally addressable properties and non-postally addressable entities such as communications masts. Similarly it does not differentiate between publicly or privately maintained streets.

How does the data model work?
As far as properties are concerned, the standard is based on the concept of a land parcel unit known as a Basic Land and Property Unit (BLPU).

A BLPU is defined in BS7666 part 2 as an area of land in uniform property rights or, in the absence of such ownership evidence or where required for administration purposes, inferred from physical features, occupation or use.

Each BLPU has a unique reference number (UPRN), a spatial reference (grid coordinate) and one or more Land and Property Identifiers (LPI).

The LPI is basically the address of the BLPU in a standard format that uniquely identifies the BLPU in relation to a street as defined and held in the National Street Gazetteer (NSG). The principal components of the LPI are the UPRN from the BLPU, the Unique Street Reference Number (USRN) from the NSG and sufficient elements from the hierarchy of Primary and Secondary Addressable Objects (PAOs and SAOs) necessary to uniquely identify the BLPU.

In terms of streets each Street may be recorded at a simple or complex level. The simple level provides a street name or description and location elements such as locality and town together with spatial extremity points – all references to a USRN. At the complex level each street is broken down into sub units (Elementary Street Units) which when aggregated together will form the full geographic representation of that street.

Addressable Objects

An Addressable Object is a real world object that has a fixed location and which may be identified and referenced by means of one or more addresses.

A Primary Addressable Object (PAO) is simply the name given to an addressable object that can be addressed without reference to another addressable object, for example a building name or street number.

A Secondary Addressable Object (SAO) is given to any addressable object that is addressed by reference to a PAON, for example "First Floor".

Both PAOs and SAOs are structured to hold both numeric and character data.

BLPU Geometry

A BLPU extent may be represented by one or more justifications known as provenances, which show its derivation e.g. from its usage of from a registered title.

There can be up to seven provenances for any BLPU Extent Polygon which do not necessarily need to be co-terminous and may therefore overlap.

What does BS7666 data look like?

NLPG data is built around the BS 7666 data model and is supplied in csv or XML format. Documentation and specifications can be found at www.nlpg.org.uk as well as sample data for download.

Work on the application of BS7666 was brought together and published by an IDeA (then LGMB) working party. These documents are available from the IDeA and have been adhered to in setting up the IDeA initiative. If required, service users can be supplied with an early extract of their data in BS7666 format for system testing.

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