

An OSODR refers not just to a single link but may refer to many links that make up a road object – which may be chained together across tile edges. Thus, on adjoining tiles, there may be two or more links with the same OSODRs. This attribute applies to links and nodes. It will be present for all features.

An OSODR has been assigned to all existing features (links and nodes) in the Roads database. Any features that are new to Roads after the initial allocation will be assigned an OSODR when they are loaded to the database.

The OSODR for a feature will never be modified – only created and deleted. However, there may be many changes to a feature with a specific OSODR during the lifetime of that OSODR allocation. There are two reasons for changes. These are:

- 1 The coordinates of the feature may move within a specified tolerance – currently 3 metres either side of a link, 10% of its length, and 5 metres' movement of any node.
- 2 The attributes associated with a feature may change. Any changes to these attributes will not affect the OSODR allocated to that feature.

The following attributes may change for link features:

- feature code;
- length of link;
- road name;
- road number; and
- trunk road indicator.

The following attributes may change for node features:

- direction of links at node;
- feature code;
- junction name;
- number of links at node;
- level of link at node; and
- settlement name.

If a feature is deleted from the Roads database, then the OSODR allocated to that feature will cease to exist.

Link level at node

The level field in Node Record 16 indicates – for roads – the relative height relationship between intersecting links at a node. It does not relate to ground surface level. If a road over a bridge can be accessed then a level value of 0 is used; a value of 1 is used when there is no access from one road to the other at an intersection. See figure 4.

In this instance, the single node will show a level 0 for all links in Node Record 16 as it is possible to access any carriageway from any approach road.

A bridge over a road that cannot be accessed will show a level value of 1.

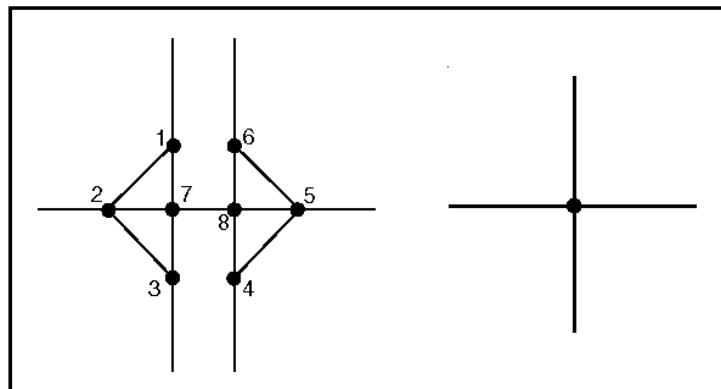


Figure 4: grade separation

Proper name (PN) attribute

This attribute defines the road name associated with any link in the Roads database. If a link does not have a proper name then the attribute will not be present. Where the road is otherwise not named and part of a named estate, the estate name will be allocated to the road.

Roundabout (RT) attribute

This attribute defines whether a node is a generalised representation of a roundabout in the Meridian 2 road data. If it is, then the node will have a roundabout attribute with a value of 'Y'.

Junction name (JN) attribute

This attribute indicates the junction number of motorway junctions and the other classified roads at that junction. The junction name is variable length text, and is in the format M6J10A, where M6 is the DfT road number, and J10A indicates that this is the junction numbered 10A of the M6. If the junction has no junction number, then that part of the junction name is not supplied.

There could be any number of roads at a junction; therefore, each classified road at that junction may be repeated in the junction name attribute. An oblique character (/) separates each road number and junction. The following is an example of a junction name attribute:

M40J1/A40/A413/A4020

This attribute only applies to nodes. If the node does not have a junction name then this attribute is not present.

Settlement name (SN) attribute

This attribute defines the name of a location or settlement. This name is attached to a node that is close to the centre of the extent of the location or settlement. Where a settlement has only private roads (not shown in Meridian 2) running through it, a road node is used on the nearest minor or classified road.

Unique identifiers

Unique identifiers are used to uniquely identify some features within Meridian 2. These are:

- OSODR attribute defines the Ordnance Survey Roads database reference (OSODR). This will uniquely identify any link or node within the national Roads dataset. Links are not merged at tile edges.
- Railway and railway station identifiers. These uniquely identify any railway link or railway station within the national Meridian 2 database between junctions and/or stations.
- Developed land use area identifier. This uniquely identifies any DLUA polygons within the national Meridian 2 database.
- Global identifier. This uniquely identifies any administrative area seed point and will not change between tiles. Each administrative seed within a county or district polygon holds the same unique ID.
- Forestry identifier. This identifies any forestry area seed point.
- Hydrology identifier. This identifies any hydrology area seed point.

The unique identifiers are unique references and will be maintained, except where there has been significant change to a feature.

The unique identifier may refer to several links representing a linear object across tiles; for example, a road or a railway, which may be chained together across tile edges. Thus, on adjoining tiles, there may be two or more links with the same unique identifier. Figure 5 illustrates this principle; the LINE_IDs are different but they all share the same OSODR across tile edges.

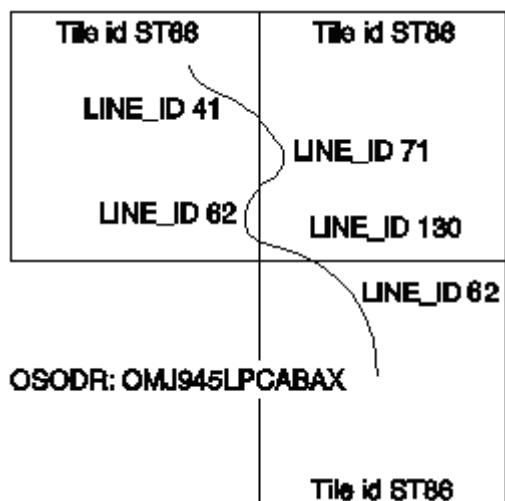


Figure 5: unique identifiers

Unique identifiers have been assigned to all existing roads (links and nodes), railway links and railway stations and to seed points for administrative areas, DLUAs, hydrology (inland water) and woodlands. Any of these features that are new to Meridian 2 after the initial allocation will be assigned an appropriate unique identifier when the database is refreshed.

The unique identifier for a feature will never be modified – only created and/or deleted. If a feature is deleted from the Meridian 2 database, then the unique identifier allocated to that feature will cease to exist.

Feature layer descriptions

The feature codes that appear in Meridian 2 within each layer are detailed in [chapter 4](#) of the technical specification. The individual layers are described below.

NOTE: names or numbers appear in all layers as attributes. The roads layer is the first hierarchical layer; the other layers will be manipulated to fit in the following 1–8 hierarchical order.

1 Roads

Motorways, major and minor roads are represented in the data. Complex junctions are collapsed to single nodes and multi-carriageways to single links.

To avoid congestion, some minor roads and cul-de-sacs less than 200 metres are not represented in the minor road feature description of the data unless the minor road terminates in a roundabout or where their removal would leave an isolated DLUA. Private roads and tracks are not included.

Hierarchical position 1

2 Railways

All railway stations open to passengers and all standard gauge passenger rail tracks are represented.

A railway intersection consists of links and a node. Where railways cross, the rail ID is maintained and no node is added to break the network. A tunnelled railway line (feature code 6142) is only added where a tunnel has been distinguished using other Ordnance Survey products such as OS MasterMap® Topography Layer and/or aerial photography. Links and nodes carry a feature code.

The railway station points will carry the station name.

To maintain positional relationship, features in this layer will be adjusted and fitted to the roads.

Hierarchical position 2

3 Administrative areas and coastline

Administrative areas include information for unitary authority areas for Scotland, Wales, county, district and London borough boundaries for England.

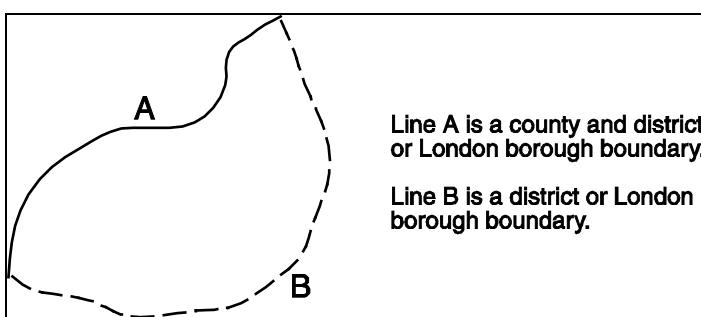


Figure 6: hierarchical relationship of boundaries for England

Each link for an administrative area carries a feature code and the administrative level associated with the left and right sides of that link. This also applies to coastline, but only to the landside of the coastline, that is, no administrative area information is added to the seaward side.

Each administrative area contains a seed point that identifies the enclosed area and carries a feature code and the associated administrative area name. Separate areas of the same administrative unit carry seed points with different identifiers.

Offshore islands carry a county and district or unitary authority seed point. There is no logical connection in the data between them and administrative units other than the same name attribute.

There is no explicit information to identify which links form the bounds of a particular area. The left and right county and district pointers on links do not contain the name of the administrative area, but refer to the seed point that has the administrative area name as its attribute.

The coastline follows the mean high water (MHW) up all estuaries to the normal tidal limit (NTL). Administrative areas are only shown down to MHW.

The administrative areas are adjusted to the coastline.

To maintain positional relationship, features in this layer may be adjusted and fitted to roads and railways.

Hierarchical position 3

4 Developed land use areas

Developed land use area (DLUAs) features represent the polygons around cities, towns, villages and industrial, commercial and business parks as contained within the Strategi dataset. Urban areas equal to or greater than 0.01 sq km are captured.

Link features enclose DLUA features. Such areas contain a seed point that identifies the enclosed area and carry a feature code and the associated DLUA name. **There is no explicit information to identify which link forms the bounds of a particular area.**

The whole DLUA has been positioned to the road pattern by best-fit practice.

Hierarchical position 4

5 Cartographic names

Place names from the small-scale database and railway station attribute names are shown as independent text features and located near the feature that they describe.

Place names are collapsed from double-banked, treble-banked or composite text to a single text feature with all the text as one string.



The text font and text height in metres have been used for these cartographic names and are – as layers – separate from the feature with which they are associated.

The Ordnance Survey convention for the digitising of names is as follows: all names are digitised as point features, given as X and Y National Grid coordinates. The point has been digitised relative to the map feature it describes, and the actual point represents one of the standard positions shown in figure 7.

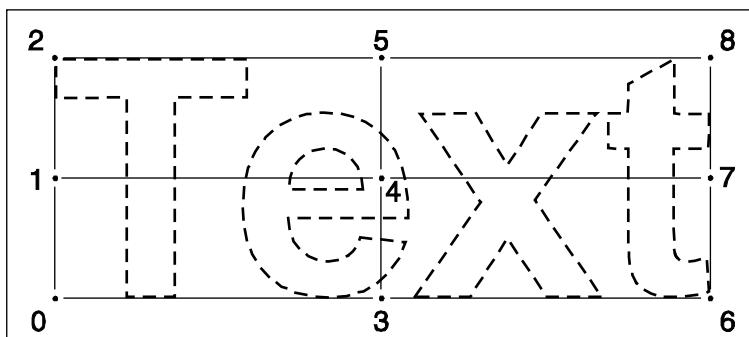


Figure 7: standard Ordnance Survey text positions

Names are normally placed on the printed map parallel to the horizontal grid.

Text in Shapefile and MID/MIF formats is positioned at a converted position 0 as the true text position is not supplied.

Hierarchical position 5

6 Hydrology

Each water area contains a seed point identifier that carries a feature code and the associated attribute. Each link for water boundaries carries a feature code.

To maintain positional relationships, features in this layer may be adjusted and fitted to the hierarchy. See the [note](#) at the beginning of feature layer descriptions earlier in this chapter.

Dark links have been used to maintain the connectivity of the network across lakes and reservoirs. Where links entering and leaving the lake or reservoir carry the same name, the dark link is attributed with this name.

Hierarchical position 6

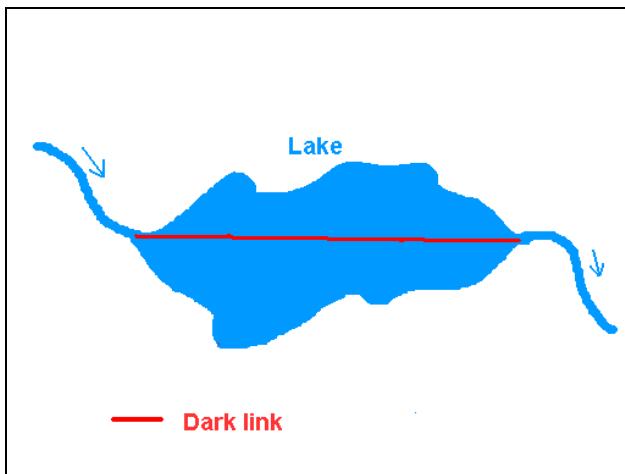


Figure 8: dark link diagram showing connectivity

A river flows into a lake. The amalgamation of this is a dark link running through the middle of the lake and outputting as a river again.

7 Woodlands

Each link for woodland boundaries carries a feature code. Each woodland area contains a seed point identifier, which carries a feature code and the associated attribute. To maintain positional relationship, features in this layer may be adjusted and fitted to hierarchy.

Hierarchical position 7

8 Gridded height

Height information is produced in the form of digital terrain model (DTM)-style data.

Gridded height information is averaged from the 50 m resolution Land-Form PANORAMA dataset to a resolution of 200 m and rounded down to the nearest 1 m value.

NOTE: gridded height is supplied with Meridian 2 on a separate CD.