



1:25 000 Scale Colour Raster

User guide and technical specification

1:25 000 Scale Colour Raster

User guide

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Preface

This user guide (hereafter referred to as the guide) is designed to provide an overview of 1:25 000 Scale Colour Raster (hereafter referred to as the product) and it gives guidelines and advice on how a customer might derive the maximum benefit from the product. It assumes a general knowledge of geographic information. If you find an error or omission in this guide, or otherwise wish to make a comment or suggestion as to how we can improve the guide, please contact us at the address shown below under contact details or complete the product and service performance report form at [annexe C](#) and return it to us.

Contact details

Our Customer Service Centre will be pleased to deal with your enquiries:

Customer Service Centre
Ordnance Survey
Romsey Road
SOUTHAMPTON
SO16 4GU

General enquiries (calls charged at local rate): +44 (0)8456 05 05 05

Dedicated Welsh Language HelpLine: 08456 05 05 04

Textphone (deaf and hard of hearing users only please): +44 (0)23 8079 2906

Email: customerservices@ordnancesurvey.co.uk

or visit the Ordnance Survey website at: www.ordnancesurvey.co.uk

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The National Trust is a registered trademark of The National Trust For Places Of Historic Interest Or Natural Beauty.

Unisys is a registered trademark of Unisys Corporation.

Unix is a registered trademark of X/Open Company Ltd.

Back-up provision of the product

You are advised to copy the supplied data to a backup medium.

Using this guide

The documentation is supplied in portable document format (PDF) only. Free Adobe® Acrobat Reader® software, which displays the guide, incorporates search and zoom facilities and allows you to navigate within. Hyperlinks are used to navigate between associated parts of the guide and to relevant Internet resources by clicking on the blue hyperlinks and the table of contents.

If you are unfamiliar with any words or terms used and require clarification please refer to the [glossary](#) at the end of the document.

Chapter 1 Introduction

The 1:25 000 Scale Colour Raster data product mirrors the popular OS Explorer Map series, showing a detailed overview of environmental and leisure features. It can provide the ideal mapping backdrop upon which to overlay business information. 1:25 000 Scale Colour Raster's backdrop can then be overlaid with other Ordnance Survey vector products or a customer's own geographic/business data, besides being a useful background map in its own right. As 1:25 000 Scale Colour Raster is aimed at professional/business markets, its graphic specification can provide assistance with:

- Environmental applications
- Leisure applications
- Construction
- Engineering
- Planning and licence applications
- Farm/estate/property management
- Real estate

Screen images can be plotted to produce a high-quality map. An example of the data is shown in figure 1 below.

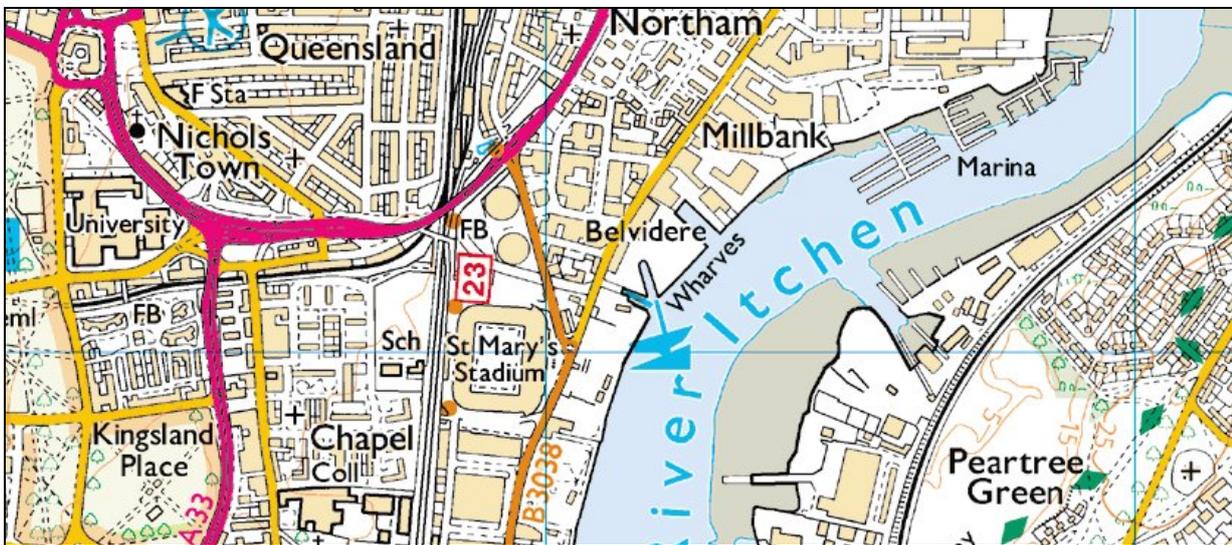


Figure 1: an extract of 1:25 000 Scale Colour Raster

Chapter 2 Content

1:25 000 Scale Colour Raster includes the following features.

Settlements

Buildings are generalised and shown with stipple infill and cartographically-placed text to indicate settlement name and extent.

Man-made structures

Structures are indicated by line, building or symbol and supplemented with text description for all distinctive named features.

Transport

Transport features depicted include tracks, paths, roads, railway lines (single and multiple track), railway stations, airports and airstrips, cycle routes, ferries and ferry ports, coach and major bus stations.

Water features

Water features are shown in blue with associated descriptive text. A distinction is made between natural (cyan) and man-made (black) water features, with the exception of canals (cyan).

Natural landscape features

Different types of natural features and vegetation are shown by symbol or colour tint, including woods, rock, scree, boulders, sand, shingle, mud and slope.

Rights of way and access land

The following routes are depicted on this product:

- Rights of way
- Footpaths, including permissive
- Bridleways, including permissive
- Byways open to all traffic
- Restricted byways
- Other routes with public access (ORPAs)
- National Trails and Long Distance Routes
- Recreational routes
- Rights of way are not shown in Scotland
- Access land

Portrayal of access land is intended as a guide to land that is normally available for access on foot, for example, access land created under the *Countryside and Rights of Way Act 2000*, and land managed by The National Trust™, Forestry Commission, Woodland Trust, National Parks and local authorities.

Height

Ground survey heights and air survey heights are depicted.

Surface heights are to the nearest metre above mean sea level. Heights shown close to a triangulation pillar refer to the ground level height at the pillar and not necessarily at the summit.

Administrative boundaries

National, county, district, unitary boundaries, civil parish and constituency boundaries are all depicted.

Tourist information

Selected tourist and leisure information is normally restricted to features providing public access or services. Tourist information is shown by a cyan symbol using, where possible, nationally-recognised symbols. Where appropriate, symbols also have black distinctive names, for example, all country parks, major gardens and so on. A full list of the tourist features in 1:25 000 Scale Colour Raster is at [annexe B](#).

Heritage and archaeological sites

Depiction includes information supplied by English Heritage[®], the Royal Commission on the Ancient and Historical Monuments of Scotland, and the Royal Commission on the Ancient and Historical Monuments of Wales.

Coastline and coastal features

Low and high water, man-made and natural landscape features are all depicted.

National Grid lines

National Grid lines shown at 1-km intervals.

Annotation

Descriptive and distinctive names are depicted as text.

Chapter 3 Scale

1:25 000 Scale Colour Raster is derived from the source data used to create its graphic counterpart, the OS Explorer Map series.

Generalisation is used to emphasise, simplify, select and sometimes omit features to produce a cartographic representation of the landscape at a scale of 1:25 000.

The nominal scale of the product is 1:25 000, but recommended minimum-to-maximum scale range is 1:8 000 to 1:25 000 scale.

Coordinates

1:25 000 Scale Colour Raster is available in National Grid coordinates, which are expressed in metres relative to an origin set to a point west of the Isles of Scilly. These coordinates can easily be spatially related to other surveys, drawings, datasets or Ordnance Survey products. Customers can visit the [British National Grid](#) pages of Ordnance Survey's website for more information.

Coverage

1:25 000 Scale Colour Raster is supplied in standard 10 km by 10 km tiles aligned to the National Grid.

Chapter 4 Formats

1:25 000 Scale Colour Raster comes in Tagged Image File Format (TIFF uncompressed and compressed), LZW and packbit compressed formats.

LZW (Lempel-Ziv-Welch) is a *loss/less* compression (see chapter 5).

TIFF PackBits is a lossless compression scheme that is supported by virtually all applications that can import TIFF graphics.

TIFF

TIFF is a file-based format for storing and interchanging raster images, with the most recent version – 6.0 – published in 1992.

There are two types of architecture for a TIFF. Many mainframe computers use what is known as a big-endian (Motorola®) architecture. Most modern computers, including personal computers (PCs), use the little-endian (Intel®) system. 1:25 000 Scale Colour Raster TIFFs are supplied with Intel architecture. Converting between these two systems is possible but, as a general rule, modern software should be expected to handle both of these outputs without operator intervention.

The 1:25 000 Scale Colour Raster conforms to the TIFF 6.0 standard. Customers are recommended to contact their system suppliers to ensure that it can read the Intel/little-endian TIFF architecture.

Chapter 5 Data compression

The data volumes for each file format are influenced by the level of data compression.

Image compression

When an image is compressed, duplicated data that has no value is removed or saved in a shorter form, reducing a file's size. For example, if large areas of water are the same tone, only the value for one pixel needs to be saved, together with the locations of the other pixels with the same colour. When the image is edited or displayed, the compression process is reversed. When raster data is compressed, not only are the data volumes reduced, but the user can download, display, edit and transfer images more quickly.

There are two forms of compression: *lossless* and *lossy*.

Lossless compression

As its name suggests, lossless compression does not lose information within an image. Lossless compression retains the original quality of an image when it is uncompressed. This process does not provide much compression, so file sizes remain large. Lossless compression is used mainly where detail is important, such as when planning to make large prints.

Lossy compression

This process degrades images to some degree, meaning that the decompressed image is not quite the same as the original. The more an image is compressed, the more degraded it becomes. In many situations, such as posting images on the Internet or printing small- to medium-sized prints, the image degradation is not so obvious. If a lossy compressed image is over-enlarged, the degradation will become apparent, and therefore, 1:25 000 Scale Colour Raster is not supplied using this compression.

TIFF

TIFF is one of the most commonly used *lossless* image formats. TIFF is primarily designed for raster data interchange, and is supported by numerous image-processing applications. This permits much more efficient access to very large files that have been compressed.

Chapter 6 Georeferencing

To be able to view each tile in the correct geographic relation to the National Grid and to each other, the tiles must be georeferenced. Geographical information systems (GIS) typically provide georeferencing as part of their functionality, but for each set of tiles, it is necessary to provide the information on how the tiles should be ordered.

Ordnance Survey provides this information in a set of georeferencing files, also known as *world* files. A complete set for 1:25 000 Scale Colour Raster is available to download free of charge from the 1:25 000 Scale Colour Raster [product page](#) on the Ordnance Survey website.

There are several different types of world file. Prior to downloading one of the sets, customers are advised to check with their system suppliers to find out which type their system supports.

The conventions behind the files' creation can be found in [chapter 4](#) of the technical specification. By using the conventions outlined there, this means that other datasets using the same conventions can be imported into the same GIS to add value to the raster map; for example, overlaying a routing or logistics network over the map or displaying a customer's demographic information.

The georeferencing files should be saved in the same directory as the files of the map tiles themselves.

Chapter 7 Revision

1:25 000 Scale Colour Raster is updated via a revision programme. The revision programme mirrors that of the OS Explorer Map series, and is determined by assessing the following factors:

- known surveyed change;
- change intelligence gathered from a range of sources; and
- consideration is given to how long since an area was last revised.

Priority is given to prestige sites categorised as significant items of change, such as major road construction projects. Significant items of survey change relevant to the scale are captured during the revision programme.

Where a line feature ends by intersecting the tile edge, it is matched with its corresponding feature on the adjacent tile so that both features end on the same unique coordinate. The representation of detail across the tile edge will be of a cartographically-acceptable standard when plotted or displayed at scale.

Changes are applied to the data and supplied to customers in May and November each year. For 1:25 000 Scale Colour Raster, only tiles that have changed since the previous supply are provided to help with customers' data management.

Chapter 8 Data measures

Ordnance Survey measures the data in its products in one or more of the ways set out in table 1 below.

Table 1 Definitions of data measures

Data measure	Definition	Sub-measure	Definition
Completeness	Presence and absence of features against the specified data content*	Omission	Features representing objects that conform to the specified data content but are not present in the data
		Commission	Features representing objects that do not conform to the specified data content but are present in the data
Logical consistency	Degree of adherence to logical rules of data structure, attribution and relationships	Conceptual consistency	How closely the data follows the conceptual rules (or model)
		Domain consistency	How closely the data values in the dataset match the range of values in the dataset specification
		Format consistency	The physical structure (syntax): how closely the data stored and delivered fits the database schema and agreed supply formats
		Topological consistency	The explicit topological references between features (connectivity) – according to specification
Positional accuracy	Accuracy of the position of features	Absolute accuracy	How closely the coordinates of a point in the dataset agree with the coordinates of the same point on the ground (in the British National Grid reference system)
		Relative accuracy	Positional consistency of a data point or feature in relation to other local data points or features within the same or another reference dataset
		Geometric fidelity	The 'trueness' of features to the shapes and alignments of the objects they represent*
Temporal accuracy	Accuracy of temporal attributes and temporal relationships of features	Temporal consistency	How well ordered events are recorded in the dataset (life cycles)
		Temporal validity (currency)	Validity of data with respect to time: the amount of real-world change that has been incorporated in the dataset that is scheduled for capture under current specifications
Thematic accuracy (attribute accuracy)	Classification of features and their attributes	Classification correctness	How accurately the attributes within the dataset record the information about objects*

*When testing the data according to the dataset specification against the 'real world' or reference dataset.

Annexe A Case study

Transport Direct

Underpinning multi-mode transport services

Transport Direct is the first ever web portal giving instant access to comprehensive journey information by both public and private transport across Great Britain. It includes a journey planner, maps, live travel information and onward links to coach and rail fares and ticketing services from different travel retailers. As it develops, the portal will also incorporate services such as information on hotels, restaurants and other points of interest. Read more at:

<http://www.ordnancesurvey.co.uk/oswebsite/products/osmastermap/layers/ftn/casestudies/TransportDirectcasestudy.pdf>

Annexe B Metadata

ISO 19115 compliant UK GEMINI discovery level metadata is provided for the data and can be found on the Glgateway® (www.glgateway.org.uk)

The following is a detailed description of the metadata elements that are provided on the Glgateway:

Title: The title of the product.

Abstract: The abstract gives a brief description of the product.

Currency: The currency takes the form of date of last update for the feature.

Lineage: The lineage metadata takes the form of product specification name and date of product specification.

Spatial extent: The spatial extent is supplied in the form of geographic identifiers (for example, England, Scotland and Wales) and in the form of geographic coordinates.

Spatial reference system: The spatial reference system for all products takes the form of a British National Grid system, namely OSGB36®.

Data format: Data format takes the form of the name of the format or formats the product is supplied in.

Frequency of updates: Frequency of update takes the form of a stated period of time.

Distributor contact details: Distributor contact details include with postal address, phone number, fax number, email address and website.

Data originator: Given as the company having primary responsibility for the intellectual content of the data source; in all cases this will be Ordnance Survey.

Other metadata available includes keywords, start date of data capture, access constraints, use constraints, level of spatial data, supply media and presentation details.

Annexe C Product and service performance report form

Ordnance Survey welcomes feedback from its customers about 1:25 000 Scale Colour Raster.

If you would like to share your thoughts with us, please print a copy of this form and when completed post or fax it to the address below.

Your name:

Organisation:

Address:

.....

.....

Postcode:

Phone:

Fax:

Email:

Quotation or order reference:

Please record your comments or feedback in the space below. We will acknowledge receipt of your form within three (3) working days and provide you with a full reply or a status report within 21 working days.

If you are posting this form, please send it to:

1:25 000 Scale Colour Raster Product Manager,
Ordnance Survey, Romsey Road, SOUTHAMPTON, SO16 4GU.

If you wish to return it by fax, please dial 023 8079 2615.

Any personal information that you supply with this report form will be used by Ordnance Survey only in the improvement of its products and services. It will not be made available to third parties.

1:25 000 Scale Colour Raster

Technical specification

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Introduction

Purpose of this specification and disclaimer

This is the technical specification (hereafter referred to as the specification) applicable to the 1:25 000 Scale Colour Raster (hereafter referred to as the product) which is referred to in the Framework Direct Licence, Specific Use Framework Partner Licence or your other customer contract for the product.

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Chapter 1 Specification

The following chapters include information about 1:25 000 Scale Colour Raster, file compression, symbology, georeferencing and formats.

1:25 000 Scale Colour Raster

Specification	1:25 000 Scale Colour Raster
Number of tiles in Great Britain	2 859 (edgematched) <ul style="list-style-type: none">• England 1 508• Scotland 1 130• Wales 289
Tile size	10 km by 10 km
Availability	National coverage
Resolution	254 dots per inch
Data structure	Raster
Transfer format	TIFF PackBits compressed. TIFF palette 8-bit (256 colours) with LZW* compression
Storage volumes per tile	1.5–3.0 Mb compressed
Update frequency	Half-yearly update in May and November (see chapter 7 in the user guide)

* If LZW compressed formats are used then registration may be required. Information is available on the Unisys® website at www.unisys.com/about__unisys/lzw/.

Chapter 2 Legend

English



1:25 000 Scale Colour Raster

Communications

ROADS AND PATHS Not necessarily rights of way

- M1 or A6(M)** Motorway Service area **7** Junction number
- A35** Dual carriageway
- A30** Main road
- B3074** Secondary road
- Narrow road with passing places
- Road under construction
- Road generally more than 4 m wide
- Road generally less than 4 m wide
- Other road, drive or track, fenced and unfenced
- Gradient: steeper than 20% (1 in 5); 14% (1 in 7) to 20% (1 in 5)
- Ferry; Ferry P - passenger only
- Path

RAILWAYS

- Multiple track } standard gauge
- Single track }
- Narrow gauge or Light rapid transit system (LRTS) and station
- Road over; road under; level crossing
- Cutting; tunnel; embankment
- Station, open to passengers; siding

PUBLIC RIGHTS OF WAY (Rights of way are not shown on maps of Scotland)

- Footpath
- Bridleway
- Byway open to all traffic
- Restricted byway (from 2nd May 2006 roads used as public paths were redesignated as restricted byways. They provide a right of way for walkers, horse riders, cyclists and other non-mechanically propelled vehicles)

Public rights of way shown on this map have been taken from local authority definitive maps and later amendments.
Rights of way are liable to change and may not be clearly defined on the ground.
Please check with the relevant local authority for the latest information

The representation on this map of any other road, track or path is no evidence of the existence of a right of way

OTHER PUBLIC ACCESS

- Other routes with public access (not normally shown in urban areas)
The exact nature of the rights on these routes and the existence of any restrictions may be checked with the local highway authority. Alignments are based on the best information available
- National Trail / Long Distance Route; Recreational Route
- Permissive footpath } Footpaths and bridleways along which landowners have permitted public use but which are not rights of way. The agreement may be withdrawn
- Permissive bridleway }
- Traffic-free cycle route
- National cycle network route number - traffic free
- National cycle network route number - on road

Scotland

In Scotland, everyone has access rights in law over most land and inland water, provided access is exercised responsibly. **This includes walking, cycling, horse-riding and water access, for recreational and educational purposes, and for crossing land or water.** Access rights do not apply to motorised activities, hunting, shooting or fishing, nor if your dog is not under proper control. The **Scottish Outdoor Access Code** is the reference point for responsible behaviour, and can be obtained at www.outdooraccess-scotland.com or by phoning your local Scottish Natural Heritage office. *Land Reform (Scotland) Act 2003



National Trust for Scotland, always open / limited opening - observe local signs

Forestry Commission Land / Woodland Trust Land

England & Scotland



Firing and test ranges in the area. Danger! Observe warning notices
Champs de tir et d'essai. Danger! Se conformer aux avertissements
Schuess und Erprobungsgelände. Gefahr! Warnschilder beachten
Visit www.access.mod.uk for information

ACCESS LAND

England

Portrayal of access land on this map is intended as a guide to land which is normally available for access on foot, for example access land created under the Countryside and Rights of Way Act 2000, and land managed by the National Trust, Forestry Commission and Woodland Trust. Access for other activities may also exist. Some restrictions will apply; some land will be excluded from open access rights. The depiction of rights of access does not imply or express any warranty as to its accuracy or completeness. Observe local signs and follow the Countryside Code. Visit www.countrysideaccess.gov.uk for up-to-date information



Access land boundary and tint



Access land in woodland area



Access information point



Access permitted within managed controls for example, local byelaws
Visit www.access.mod.uk for information

General Information

VEGETATION

Limits of vegetation are defined by positioning of symbols

	Coniferous trees		Scrub		Orchard
	Non-coniferous trees		Bracken, heath or rough grassland		
	Coppice		Marsh, reeds or saltings		

GENERAL FEATURES

	Place of worship		Gravel pit		Sand pit
	Current or former place of worship with tower		Other pit or quarry		Landfill site or slag/spoil heap
	Current or former place of worship with spire, minaret or dome		Boundary post/stone		
	Building; important building		Cattle grid		
	Glasshouse		Clubhouse		
	Youth hostel		Footbridge		
	Bunkhouse/camping barn/other hostel		Milepost; milestone		
	Bus or coach station		Monument		
	Lighthouse; disused lighthouse; beacon		Post office		
	Triangulation pillar; mast		Police station		
	Windmill, with or without sails		School		
	Wind pump; wind turbine		Town hall		
	Electricity transmission line		Normal tidal limit		
	Slopes		Well; spring		

BOUNDARIES

	National
	County (England)
	Unitary Authority (UA), Metropolitan District (Met Dist), London Borough (LB) or District (Scotland & Wales are solely Unitary Authorities)
	Civil Parish (CP) (England) or Community (C) (Wales)
	National Park boundary

HEIGHTS AND NATURAL FEATURES

	52 · Ground survey height	Surface heights are to the nearest metre above mean sea level. Where two heights are shown, the first height is to the base of the triangulation pillar and the second (in brackets) to the highest natural point of the hill
	284 · Air survey height	
	Vertical face/cliff	
	Contours may be at 5 or 10 metres vertical interval	
	Loose rock	
	Boulders	
	Outcrop	
	Scree	
	Water	
	Mud	
	Sand; sand & shingle	

ARCHAEOLOGICAL AND HISTORICAL INFORMATION

	Site of antiquity	VILLA	Roman
	Site of battle (with date)	Castle	Non-Roman
	Visible earthwork		

Information provided by English Heritage for England and the Royal Commissions on the Ancient and Historical Monuments for Scotland and Wales

Selected Tourist and Leisure Information

RENSEIGNEMENTS TOURISME ET LOISIRS SÉLECTIONNÉS

AUSGEWÄHLTE INFORMATIONEN ZU TOURISTIK UND FREIZEITGESTALTUNG

	Parking / Park & Ride, all year/seasonal Parking / Parking et navette, ouvert toute l'année/en saison Parkplatz / Park & Ride, ganzjährig/saisonal		Walks/trails Promenades Wanderwege		Water activities Jeux aquatiques Wassersport
	Information centre, all year/seasonal Office de tourisme, ouvert toute l'année/en saison Informationsbüro, ganzjährig/saisonal		Cycle trail Piste cyclable Radfahrweg		Slipway Cale Helling
	Visitor centre Centre pour visiteurs Besucherzentrum		Mountain bike trail Chemin pour VTT Mountainbike-Strecke		Other tourist feature Autre site intéressant Sonstige Sehenswürdigkeit
	Forestry Commission visitor centre Commission Forestière, Centre de visiteurs Staatsforst Besucherzentrum		Horse riding Equitation Reitstall		Cathedral/Abbey Cathédrale/Abbaye Kathedrale/Abtei
	Public convenience Toilettes Öffentliche Toilette		Public house/s Pub/s Gaststätte/n		Museum Musée Museum
	Telephone, public/roadside assistance/emergency Téléphone, public/borne d'appel d'urgence/urgence Telefon, öffentlich/Notrufsäule/Notruf		Viewpoint Point de vue Aussichtspunkt		Castle/fort Château/Fortification Burg/Festung
	Camp site/caravan site Terrain de camping/Terrain pour caravanes Campingplatz/Wohnwagenplatz		Picnic site Emplacement de pique-nique Picknickplatz		Building of historic interest Bâtiment d'intérêt historique Historisches Gebäude
	Recreation/leisure/sports centre Centre de détente/loisirs/sports Erholungs-/Freizeit-/Sportzentrum		Country park Parc naturel Landschaftspark		National Trust
	Golf course or links Terrain de golf Golfplatz		Garden/arboretum Jardin/Arboretum Garten/Baumgarten		English Heritage
	Theme/pleasure park Parc à thèmes/Parc d'agrément Vergnügungs-/Freizeitpark		Nature reserve Réserve naturelle Naturschutzgebiet		Historic Scotland
	Preserved railway Chemin de fer touristique Museumsbahn		Fishing Pêche Angeln		

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Ordnance Survey

1:25 000 Scale Colour Raster / Graddfa 1:25 000 Raster Lliw

ROADS AND PATHS / FFYRDD A LLWYBRAU

Not necessarily rights of way / Nid â hawliau tramwy o anghenraid

	Motorway / Traffordd
	Dual carriageway / Ffordd ddeuol
	Main road / Prifffordd
	Secondary road / Ffordd eilaidd
	Narrow road with passing places / Ffordd gul gyda manau pasio
	Road under construction / Ffordd yn cael ei hadeiladu
	Road generally more than 4 m wide / Ffordd sy'n lletach na 4 m yn gyffredinol
	Road generally less than 4 m wide / Ffordd sy'n gulach na 4 m yn gyffredinol
	Other road, drive or track, fenced and unfenced / Ffordd, dreif neu drac arall wedi neu heb eu ffensiô
	Gradient: steeper than 20% (1 in 5), 14% (1 in 7) to 20% (1 in 5) / Rhediad: 20% (1 mewn 5) ac yn fwy serth; 14% (1 mewn 7) i 20% (1 mewn 5)
	Ferry; Ferry P - passenger only / Fferi; Fferi P - teithwyr yn unig
	Path / Llwybr
	Service Area / Ardal Wasanaeth
	Junction Number / Rhif y gyffordd

RAILWAYS / RHEILFFYRDD

	Multiple track / Trac lluosog	} standard gauge / rheilffordd safonol
	Single track / Trac sengl	
	Narrow gauge or Light rapid transit system (LRTS) and station / Rheilffordd gul neu System gludo ysgafn gyflym (LRTS) a gorsaf	
	Road over: road under; level crossing / Heol drosodd; heol o dan; croesfan rheilffordd	
	Cutting; tunnel; embankment / Trychfa; twnel; arglawdd	
	Station, open to passengers; siding / Gorsaf, ar agor i deithwyr; cilffordd	

VEGETATION / PLANHIGION

Limits of vegetation are defined by positioning of symbols / Mae terfynau planhigion yn cael eu dangos trwy osodiad y symbolau

	Coniferous trees / Coed conwydd		Scrub / Prysgoed
	Non-coniferous trees / Coed di-gôn		Bracken, heath or rough grassland / Rhedyn, rhosydd neu lastir garw
	Coppice / Coedlan		Marsh, reeds or saltings / Corsydd, brwyn neu forfa
	Orchard / Perllan		

PUBLIC RIGHTS OF WAY / HAWLIAU TRAMWY CYHOEDDUS

	Footpath / Llwybr troed		Byway open to all traffic / Cilffordd yn agored i bob trafnidiaeth
	Bridleway / Llwybr march		Restricted byway / Cilffyrdd cyfyngedig

From 2nd May 2006 roads used as public paths were redesignated as restricted byways. They provide a right of way for walkers, horse riders, cyclists and other non-mechanically propelled vehicles
Ers 2ed o Fai 2006 mae ffyrdd a ddefnyddir fel llwybrau cyhoeddus wedi cael eu ail-ddisgrifio fel cilffyrdd cyfyngedig. Maent yn rhoi hawliau tramwy ar gyfer cerddwyr, beicwyr a cerbydau ddi-beiriannol eraill

The representation on this map of any other road, track or path is no evidence of the existence of a right of way
Nid yw ymddangosiad unrhyw ffordd neu drac neu lwybr arall ar y map hwn yn profi bod hawl i dramwy ar hyd-ddynt

Public rights of way shown on this map have been taken from local authority definitive maps and later amendments. Rights of way are liable to change and may not be clearly defined on the ground. Please check with the relevant local authority for the latest information

Daw'r hawliau tramwy cyhoeddus a ddangosir ar y map hwn o fapiau swyddogol awdurdodau lleol a newidiadau diweddorach. Mae hawliau tramwy yn gallu newid ac mae'n bosibl nad ydynt wedi'u diffinio'n eglur ar y tir. Holchw yr awdurdod lleol perthnasol am yr wybodaeth ddiweddaraf

OTHER PUBLIC ACCESS / MYNEDIAD CYHOEDDUS ARALL

	Other routes with public access (not normally shown in urban areas) / Lwybrau eraill gyda mynediad i'r cyhoedd (ni ddangosir mewn ardaloedd trefol)
--	---

The exact nature of the rights on these routes and the existence of any restrictions may be checked with the local highway authority. Alignments are based on the best information available
Gellir holl'r awdurdod ffyrdd lleol am union natur yr hawliau ar y llwybrau hyn ac unrhyw gyfyngiadau sy'n bodoli. Mae'r aliadau yn seiliedig ar y wybodaeth orau sydd ar gael

	National Trail / Long Distance Route; Recreational route	
	Llwybr Cenedlaethol neu Llwybr Hirbell; Llwybr hamdden	
	Permissive footpath / Llwybr troed caniatâol	} Footpaths and bridleways along which landowners have permitted public use but which are not rights of way. The agreement may be withdrawn / Llwybrau a lwybrau merlota y mae tirfeddianwyr wedi caniatâu i'r cyhoedd eu defnyddio ond nad ydynt yn hawliau tramwy. Gellir diddymu'r cytundeb
	Permissive bridleway / Llwybr merlota caniatâol	
	Traffic-free cycle route / Trywydd beicio yn rhydd o drafnidiaeth	
	National cycle network route number - traffic free / Rhif trywydd rhydwraith beicio cenedlaethol - yn rhydd o drafnidiaeth	
	National cycle network route number - on road / Rhif trywydd rhydwraith beicio cenedlaethol - ar ffordd	

NATURAL FEATURES / NODWEDDION NATURIOL

	Water / Dŵr		Mud / Llaidd		Sand; sand and shingle / Tywod; tywod a cherrig mân
	Vertical face/cliff / Wymb unionsyth/clogwyn		Contours maybe at 5 or 10 metre vertical intervals		Scree / Loose rock / Sgri
	Outcrop / Brig		Boulders / Cerrig mawrion		

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ACCESS LAND / TIR MYNEDIAD

Portrayal of access land on this map is intended as a guide to land which is normally available for access on foot, for example access land created under the Countryside and Rights of Way Act 2000, and land managed by the National Trust, Forestry Commission and Woodland Trust. Access for other activities may also exist. Some restrictions will apply; some land will be excluded from open access rights. The depiction of rights of access does not imply or express any warranty as to its accuracy or completeness. Observe local signs and follow the Countryside Code. Visit www.ccw.gov.uk for up-to-date information

Canllaw ar gyfer tir ble mae mynediad ar droed fel arfer, er enghraifft tir wedi'u greu o dan Deddf Cefn Gwlad a Hawliau Tramwy 2000, a tir wedi'u rheoli gan yr Ymddiriedolaeth Genedlaethol, Y Comisiwn Coedwigaeth ac Ymddiriedolaeth y Coedlannau. Gall fod mynediad ar gyfer gweithgareddau eraill yn bodoli. Gall fod cyfyngiadau; gall fod tir wedi'u eithrio o hawliau mynediad agored. Nid yw'r portread o hawliau mynediad yn cyflwynu neu'n datgan unrhyw warant ynghylch eu cywirdeb neu eu cyflawnder. Cadwch at arwyddion lleol a dilynwch y Cód Cefn Gwlad. Ymwelwch â www.ccw.gov.uk ar gyfer y wybodaeth diweddaraf

Access land boundary and tint / Ffin tir mynediad ac arlliw

Access land in wooded area / Tir mynediad mewn ardal coeddog

Access information point / Pwynt gwybodaeth mynediad

Firing and test ranges in the area. Danger! Observe warning notices

Meysydd tanio a phrofi yn yr ardal. Perygl! Rhaid uffudhau arwyddion rhybudd

DANGER AREA

Champs de tir et d'essai. Danger! Se conformer aux avertissements

Schiess und Erprobungsgelände. Gefahr! Warnschilder beachten

Access permitted within managed controls, for example, local byelaws / Caniatâd mynediad o fewn rheolaeth, er enghraifft, deddf leol

Visit www.access.mod.uk for information / Ewch i www.access.mod.uk ar gyfer gwybodaeth

ARCHAEOLOGICAL AND HISTORICAL INFORMATION / GWYBODAETH ARCHEOLEGOL A HANESYDDOL

- Site of antiquity / Safle heneb
- 1066 Site of battle (with date) / Safle brwydyr (gyda dyddiad)
- VILLA Roman / Rhufeinig
- Castle Non-Roman / Anrhufeinig
- Visible earthwork / Cloddwaith i'w weld

Information provided by English Heritage and the Royal Commissions on the Ancient and Historical Monuments for Scotland and Wales

Darparwyd gwybodaeth gan English Heritage a Chomisïwnau Brenhinol Henebion a Chofebau Hanesyddol yr Alban a Chymru

ABBREVIATIONS / BYRFODDAU

BP	Boundary post / Polyn ffin	Mon	Monument / Cofadail
BS	Boundary stone / Carreg ffin	Sch	School / Ysgol
CG	Cattle grid / Grid gwartheg	TH	Town hall / Neuadd y dref
CH	Clubhouse / Tŷ chwib	NTL	Normal tidal limit / Terfyn arferol y llanwr
FB	Footbridge / Pompren	- W, Spr	Well; spring / Ffynnon; tarddell
MP	Milepost / Postyn milltir	PO	Post office / Swyddfa'r post
MS	Milestone / Carreg milltir	Pol Sta	Police station / Swyddfa'r heddlu

GENERAL FEATURES / ARWEDDION CYFFREDINOL

- Gravel pit / Grobwl
- Sand pit / Pwll tywod
- Other pit or quarry / Pwll neu wwarel arall
- Landfill site or slag/spoil heap / Safle claddfa rwbwl neu tomen sorod/sbwriel
- Building / Adeilad
- Important building / Adeilad pwysig
- Glasshouse / Tŷ gwyr

- Bus or coach station / Gorsaf fysiau
- Bunkhouse / camping barn / other hostel / Byncws, ysgubor wersylla, hostel eraill
- Youth hostel / Hostel leuencid
- Triangulation pillar / Piler triongli
- Mast / Mast
- Windmill with or without sails / Melin wynt gyda hwyliau neu hebddynt
- Wind pump / Pwmp gwynt
- Wind turbine / Tyrbin gwynt

- pylon / pole / peilon / polyn Electricity transmission line / Lein trawsyrru trydan
- Slopes / Lliethrau
- Lighthouse; disused lighthouse; beacon / Goleudy; goleudy nas defnyddir; goleufa

- Current or former place of worship / Lle addoliad presennol neu blaenorol
- with tower / gyda thŵr
- with spire, minaret or dome / gyda meindwr, minaré neu gromen
- Place of worship / Lle addoliad

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BOUNDARIES / FFANIAU

- National / Cenedlaethol
- County (England) / Sir (Lloegr)
- Unitary Authority (UA) / Awdurdod Unedol, Metropolitan District (Met Dist) / Dosbath Prifddinesig, London Borough (LB) or District / Bwrdeistref neu Ddosbath Llundain (Scotland & Wales are solely Unitary Authorities) / (Mae'r Alban a Chymru yn Awdurdod Unedol yn gyfan gwbl)
- Civil Parish (CP) (England) or Community (C) (Wales) / Plwyf Sifil (CP) (Lloegr) neu Cymuned (C) (Cymru)
- National Park boundary / Ffin Parc Cenedlaethol

HEIGHTS / UCHDERAU

Surface heights are to the nearest metre above mean sea level. Where two heights are shown, the first height is to the base of the triangulation pillar and the second (in brackets) to the highest natural point of the hill
Mae uchder awyrbwbiau i'r fetr agosaf uwchben lefel y môr. Ble mae dau uchder yn ymddangos, mae'r uchder cyntaf wrth sail y piler triongli ac mae'r ail (mewn cromfachau) ar gyfer pwynt uchaf naturiol y bryn

- 52 · Ground survey height / Uchder arolwg tir
- 284 · Air survey height / Uchder arolwg awyr

SELECTED TOURIST AND LEISURE INFORMATION / GWYBODAETH TWRISTIAETH A HAMDDEN DDETHOL

- Building of historic interest / Adeilad o ddiddordeb hanesyddol
- Castle / fort / Caer / castell
- Cadw (Welsh heritage) / Cadw (treftadaeth Cymreig)
- English Heritage property / Eiddo'r English Heritage
- National Trust property / Eiddo'r Ymddiriedolaeth Genedlaethol
- World Heritage site / area / Safle Treftadaeth y Byd
- Cathedral / Abbey / Eglwys gadeiriol / Abaty
- Museum / Amgueddfa
- Garden / arboretum / Gardd / gardd goed
- Country park / Parc gwledig
- Nature reserve / Gwarchodfa natur
- Public house/s / Tafarn/au
- Public Convenience / Cyfleusterau cyhoeddus
- Recreation / leisure / sports centre / Canolfan adloniant / hamdden / chwaraeon
- Preserved railway / Rheilffordd a ddiogelwyd
- Other tourist feature / Atnyadau eraill i ymwelwyr
- Viewpoint / Gwyllfa
- Theme / pleasure park / Parc thema / pleser
- Telephone, public / roadside assistance / emergency / Ffôn, cyhoeddus / cymorth minffordd / argyfwng
- Information centre / Canolfan gwybodaeth
- Information centre, seasonal / Canolfan gwybodaeth, tymhorol
- Visitor centre / Canolfan ymwelwyr
- Forestry Commission visitor centre / Canolfan ymwelwyr Comisiwn Coedwigaeth
- National Park information centre / Canolfan hysbysrwydd Parc Cenedlaethol
- Parking / Parcio
- Park & Ride, all year / seasonal / Parcio a chludo, drwy'r flwyddyn / tymhorol
- Cycle trail / Lwyr beiciau
- Mountain bike trail / Lwyr beic mynydd
- Picnic site / Safle picnic
- Walks / trails / Lwyrbrau
- Camp site / Safle gweryll
- Caravan site / Safle carafanau
- Camping and caravan site / Safle carafanau a gweryll
- Fishing / Pysgota
- Golf course or links / Cwrs neu lain golff
- Horse riding / Marchogaeth
- Water activities / Chwaraeon dŵr
- Stipway / Lithrfa

Unique symbols used on 1:25 000 scale mapping

	World Heritage 	CADW 	Roman Site 	
London River Services 	London Underground Station 	Glasgow Underground Station 	'A' Road Service Area 	Toll Road Junction
Viewpoint Symbol represents approximate angle of view from the viewpoint				
90° 	160° 	180° 	225° 	360°
National Park Visitor Centres				
North York Moors 	Northumberland 	Yorkshire Dales 	Lake District 	Pembrokeshire
The Norfolk Broads only (Explorer OL40)				
Windmill (open to the public) 	Moorings (Free) 	Electric Boat Charging Point 		
Isles of Scilly only (Explorer 101)				
Contact the Isles of Scilly Wildlife Trust for access information				
Closed 	Always open 	Limited opening 	Isles of Scilly Wildlife Trust Visitor Centre 	
Purbeck & South Dorset only (Explorer OL15)				
Ministry of Defence (MOD) area				
Restricted access to the public within Firing Ranges		Contact MOD for Range Live Firing and Access information		
Range walk starting point 	Range walks 	Roads open when range walks open 	WEB Address (for information on access to MOD areas) www.access.mod.uk	
Eastbourne & Beachy Head only (Explorer 123)				
Point of Access to the foreshore 				
Changes to Natural Features				
Natural features may appear in Black or Grey			From Mid 2007 Rock features are being changed from Black to Grey	

Common abbreviations

Term	Description	Term	Description
Allot Gdns	Allotment gardens	Met Sta	Meteorological station
Amb Sta	Ambulance station	MHW	Mean high water
B Rock	Boundary rock	MHWS	Mean high water springs
Bdy	Boundary	Mkt	Market
BP	Boundary post or plate	MLW	Mean low water
Br	Bridge	MLWS	Mean low water springs
BS	Boundary stone	Mon	Monument
Burial Gd	Burial ground	MP	Milepost
Car Pk	Car park	MS	Milestone
Cath	Cathedral	Multi Car	Multi-storey car park
Cemy	Cemetery	Munl	Municipal
CG	Cattle grid	Mus	Museum
CG Sta	Coastguard station	N	North
CH	Clubhouse	NTL	Normal tidal limit
Chy	Chimney	Obsy	Observatory
Coll	College	P	Post (on 1:25 000)
Comm Cen	Community centre	P	Post Office (on 1:50 000)
Conv Home	Convalescent home	PC	Public convenience
Cott	Cottage	PH	Public house
Crem	Crematorium	PL	Pipeline
Cvt	Convent	PO	Post Office
Dis	Disused	Pol Sta	Police station
Dismtd Rly	Dismantled railway	Pp	Pump
ELDR	European Long Distance Route	Pp Ho	Pump house
El Gen Sta	Electricity generating station	Ppg Sta	Pumping station
El Sub Sta	Electricity substation	Presby	Presbytery
Ex	Exchange	R	River
Fall	Waterfall	Rec	Rectory
FB	Footbridge	Recn Gd	Recreation ground
Ferry P	Ferry, passenger	Rems of	Remains of
Ferry V	Ferry, vehicular	Resr	Reservoir
Fm	Farm	Rly	Railway
F Sta	Fire station	S	South
Gdns	Gardens	S	Stone
Govt	Government (offices)	Sanatm	Sanatorium
Ho	House	Sch	School
Hospl	Hospital	Sl	Sluice
HPO	Head Post Office®	Spr	Spring
HQ	Headquarters	Sprs	Springs
H Ram	Hydraulic ram	St	Saint
Ind Est	Industrial estate	Sta	Station
Infmy	Infirmery	TA	Territorial Army
IRB Sta	Inshore rescue boat station	Tech Coll	Technical college
Inst	Institute	Tel Ex	Telephone exchange
Instn	Institution	TH	Town hall
Isoln Hospl	Isolation hospital	Tk	Track
Km	Kilometres	Toll	Toll bridge or gate
L	Loch	TV Sta	Television station
L Twr	Lighting tower	Twr	Tower
LB	London borough	Univ	University
LB Ho	Lifeboat house	Vic	Vicarage
LB Sta	Lifeboat station	W	Well
LC	Level crossing	War Meml	War memorial
Liby	Library	Wks	Works
Look Sta	Lookout station	Wr Twr	Water tower
LRTS	Light rapid transit system	Wr Wks	Water works
M	Metres	WT Sta	Wireless transmitting station
Meml	Memorial		

Chapter 3 Georeferencing

A definition for registering raster images within a geographic framework is the process of assigning map coordinates to the raster image data and resampling the pixels of the image to conform to the map projection grid. This allows tiles of map data to be located in their correct geographic position relative to the map projection and also to themselves.

Great Britain is surveyed and mapped using the Transverse Mercator (or Gauss-Kruger) projection, so all raster tiles will be mapped to this projection as it applies to Ordnance Survey National Grid if using world or TAB files supplied by Ordnance Survey.

Within the MIF record header, the following information will be found under COORDSYS:

```
CoordSys Earth Projection 8, 79, "m", -2, 49, 0.9996012717, 400000, -100000  
Bounds(4.17232513428e-011, 7.7486038208e-011) (700000, 1300000)
```

This information relates to the Transverse Mercator projection, its position relative to the rest of the world and also an individual tile's position relative to the projection. The record header is constructed as (not all fields have to be used):

CoordSys Earth Projection 8	The 8 relates to a MapInfo® identifier, in this case the Transverse Mercator projection.
79	A MapInfo identifier, in this case, this relates to Ordnance Survey of Great Britain 1936, Airy ellipsoid.
"m"	Relates to the unit of measurement, in this case, metres.
-2	This is the origin of the projection in respect of longitude.
49	This is the origin of the projection in respect of latitude.
0.9996012717	Indicates the distortion of the tile at the central meridian. A value of 1.0 would indicate no distortion at all. However, distortion within this projection is minimal, even at the far western or eastern limits.
400000, -100000	These figures indicate the false origin of the British National Grid. They represent the south-west corner of the Transverse Mercator projection which overlays Great Britain, so all coordinates for any tile, no matter what scale, will always be positive.
Bounds: (4.17232513428e-011, 7.7486038208e-011) (700000, 1300000)	These values represent the minimum bounding X and Y coordinates for the tile. These values represent the maximum bounding X and Y coordinates for the tile.

Chapter 4 Image file directory (TIFF)

The image file directory for TIFF will contain a selection of the following entries:

Tag 254 (NewSubfileType)

An indication of the kind of data contained in this sub-file, for example, value = 0

Tag 256 (ImageWidth)

The number of columns in the image, the number of pixels per row, for example, value = 4000

Tag 257 (ImageLength)

The number of rows of pixels in the image, for example, value = 4000

Tag 258 (BitsPerSample)

Number of bits per component, for example, value = 8

Tag 259 (Compression)

Compression scheme used on the image data, for example, value = 5 (LZW)

Tag 262 (Photo.Interpretation)

The colour space of the image data, for example, value = 3 (RGB Palette).

Tag 270 (ImageDescription)

A string that describes the subject of the image, for example, value = 1:25 000 SU41

Tag 273 (StripOffsets)

For each strip, the byte offset of that strip, for example, 1st 4 values = 5640 19678 35692 51409

Tag 278 (RowsPerStrip)

The number of rows in each strip, for example, value = 8

Tag 279 (StripByteCounts)

For each strip, the number of bytes in that strip after compression, for example, 1st 4 values = 14038 16014 15717 15442

Tag 282 (XResolution)

The number of pixels per Resolution Unit in the Image Width, for example, value = 100/1

Tag 283 (YResolution)

The number of pixels per Resolution Unit in the Image Length, for example, value = 100/1

Tag 296 (ResolutionUnit)

Units used for Resolution, for example, value = 3 (Centimetre)

Tag 306 (DateTime)

Date and time of image creation, for example, value = 2007:06:30 12:38:41

Tag 320 (ColourMap)

Look-up table, for example, value = 1st 4 values = 22873 31354 39321 59110

Tag 33432 (Copyright)

Copyright notice, for example, value = ORDNANCE SURVEY CROWN COPYRIGHT 2007

NOTE: The values given above are relevant to 1:25 000 scale TIFF data with LZW compression.

TIFF

Colour image directory (TIFF)

	Tag number	TIFF 8-bit uncompressed	TIFF 8-bit LZW compressed
File Byte Order :		MM (Little-endian)	MM (Little-endian)
Magic Number :		42	42
Number of fields in IFD :		18	18
NewSubfileType	254	0	0
Image Width	256	4 000	4 000
ImageLength	257	4 000	4 000
BitsPerSample	258	8	8
Compression	259	1 (Uncompressed)	5 (LZW)
Photo.Interpretation	262	3 (RGB Palette)	3 (RGB Palette)
ImageDescription	270	1:25 000 TILE SU41	1:25 000 TILE SU41
XResolution	282	100/1	100/1
YResolution	283	100/1	100/1
ResolutionUnit	296	3 (Centimetre)	3 (Centimetre)
DateTime	306	2007:09:20 11:20:04	2007:09:20 11:20:04
ColorMap	320	1st 4 values = 22873 31354 39321 59110	1st 4 values = 22873 31354 39321 59110
Copyright	33432	ORDNANCE SURVEY CROWN COPYRIGHT 2007	ORDNANCE SURVEY CROWN COPYRIGHT 2007

The tag values listed in the above table are relevant to 1:25 000 scale Intel® TIFF raster data.

It should be noted that customers can access tag information from a raster file image by right-clicking on a TIFF data image and looking at properties, and then left clicking on summary.

Annexe A Glossary

The purpose of this chapter is to provide a glossary of terms used in the definition of products, services, licensing and other terms and conditions for 1:25 000 Scale Colour Raster.

American Standard Code for Information Interchange (ASCII)

A standard binary coding system used to represent characters within a computer.

binary digit (bit)

The smallest possible unit of data, resulting from a choice between 0 and 1.

boundary

A boundary forms the division between two similar real-world objects, for example, property boundary or administrative boundary, and is defined by one or more lines.

byte

A unit of computer storage of binary data, usually comprising 8 bits, equivalent to a character.

character

A distinctive mark; an inscribed letter; one of a set of writing symbols.

character code

The binary representation of a single element of a character set; for example, EBCDIC, ASCII.

coordinate pair

A coordinate pair is an easting and a northing.

coordinate transformation

A computational process of converting an image or map from one coordinate system to another.

compact disc (CD)

Read-only memory (CD-ROM). A data storage medium. A 12-cm disc similar to the audio CD. It is an alloy disc pitted with tiny holes and then coated in plastic. A laser head reads the pattern of the holes and translates them into binary data.

copyright

The sole legal right to print or publish a work. Crown Copyright subsists in all Ordnance Survey publications for a 50-year period, from the end of the year in which they were first published, by virtue of the *Copyright Designs and Patents Act 1988*.

customer

An organisation or individual that makes use of Ordnance Survey's data supply facilities. This includes both direct sales customers of Ordnance Survey as well as customers of Licensed Partners. It does not include anyone, or any organisation, that has access to Ordnance Survey material without charge.

data

A representation of facts, concepts or instructions in a formalised manner suitable for communication, interpretation or processing.

database

An organised, integrated collection of geographic data, which may or may not be spatial data. It is stored so that specific applications can access the data by different logical paths. A database is accessed and managed by a database management system (software for managing database information).

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.

data quality

Attributes of a dataset that define its suitability for a particular purpose, such as completeness, positional accuracy, currency and so on.

data structure

The defined logical arrangement of data as used by a system for data management; a representation of a data model in computer form.

data transfer medium

This is the means by which computer files are transferred from one computer to another. Transfer media may be subdivided into communications media and physical media.

dataset

Data as supplied in a particular format to customers, whether internal or external to Ordnance Survey.

density

A measure of the number of units of data held on a stated length of storage surface. For example, some magnetic tapes may be recorded at a density of 1 600 bits per inch (bpi). Often referred to as packing density.

delivery mechanism

The method of supply of data to a customer (such as offline and online).

descriptive name

A name describing a real-world object or feature (for example, *School*) as shown on the 1:25 000 Scale Colour Raster map.

definitive name

The name as shown on the 1:25 000 Scale Colour Raster map.

digital

Data that is expressed as numbers (digits) in computer-readable form.

digital update

The supply of revised digital data to a customer at a predetermined interval of time.

direct sale

A direct transaction between Ordnance Survey and a customer.

distinctive name

A text feature which forms a name that distinguishes it from other text features of the same type, for example, *Millbrook School*.

dots per inch (dpi)

The resolution, or fineness, of a raster image.

Digital Versatile Disc (DVD)

A data storage medium.

eastings

See [rectangular coordinates](#).

JPEG

An image named after the Joint Photographic Experts Group, it uses a lossy compression format. It is designed for compressing full colour or greyscale images of natural, real-world scenes and works well on photographs. It is the de facto standard for photographs on the web.

encoding

The process of converting information to a computer-readable form, for example, digitising maps.

feature

A geographic entity such as a building or stream, either taken from a map or surveyed directly from the real world. Can be a point/symbol, text or line.

format

The specified arrangement of data, for example, the layout of a printed document, the arrangement of the parts of a computer instruction, the arrangement of data in a record.

generalisation

The cartographic process of simplifying the depiction of features to fit the output scale. For example, road widening is necessary at smaller scales to enhance their visibility.

geocode

Assigning a geographic location to data, for example, adding coordinates to an address.

geographic coordinates

Coordinates, usually expressed as latitudes and longitudes, that define position on the Earth's surface.

georef

A definition for registering raster images within a geographic framework is the process of assigning map coordinates to the raster image data and resampling the pixels of the image to conform to the map projection grid.

gigabyte (Gb)

1 073 741 824 bytes, a measure of data storage capacity (see [megabyte](#)).

kilobyte (Kb)

1 024 bytes, a measure of data storage capacity.

Licensed Partner

Any organisation that has entered into a formal licence agreement with Ordnance Survey to market map information or to incorporate map data with their application or service.

linear feature

Map feature in the form of a line (for example, river, and boundary) that may or may not represent a real-world (existent) feature.

local origin

The local origin of rectangular coordinates is the south-west corner of the 1 km by 1 km National Grid square they identify.

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, for example, 1:1250, 1:50 000 and so on.

megabyte (Mb)

1 048 576 bytes, a measure of data storage capacity (see [gigabyte](#)).

MIF

MapInfo format.

National Grid

The metric grid on the Transverse Mercator projection used by Ordnance Survey on all post-Second World War mapping to provide an unambiguous spatial reference in Great Britain for any place or entity, whatever the map scale.

northings

See [rectangular coordinates](#).

origin

The zero point in a system of [rectangular coordinates](#).

pixel

In the 1:25 000 scale product a pixel is a single point represented by a square.

points

A pair of coordinates.

raster data

Attribute data expressed as an array of pixels, with spatial position implicit in the ordering of the pixels.

real-world object

The real-world feature represented by a feature, for example, a building, a fence, a wood.

rectangular coordinates

Also known as x-y coordinates and 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, a digitising table or a VDU screen).

stipple

Used to produce light or dark shading (for example, building/water fill); this is dependent on spacing of the dots – the denser the dots, the darker the effect.

string

A set of items that can be arranged into a sequence according to a rule.

supply format

The file format in which the data is supplied to the customer.

TAB

MapInfo format.

tag

Tags are unique numbers that are used for identifying specific information in TIFF files, for example, image width, image length, bits per sample, photo interpretation and resolution.

terminator

Character, or character string, or field, or record used to signal the end of a record, or section, or volume or database.

tile

A unit of map used to divide large areas into regular and more manageable sizes.

TIFF

TIFF is a tagged image file format-based file format for storing and interchanging raster images with the most recent version – 6.0 published in 1992.

transfer format

The format used to transfer data between computer systems. In general usage, this can refer not only to the organisation of data but also to the associated information, such as attribute codes, which are required in order to successfully complete the transfer.

transfer medium

The physical medium on which digital data is transferred from one computer system to another. For example, compact disc.

UNIX®

An operating system that supports multitasking and is used by many workstations and minicomputers.

update

The process of adding to and revising existing digital map data to take account of change.

volume

A physical unit of the transfer medium that is a single disk, or a single DVD.

Annexe B Tourist features

Abbey	National Trust property (England and Wales)
Adventure activity centre	Nature reserve
Amusement park	Observatory
Angling	Oceanarium
Aquarium	Open farm
Arboretum	Ornamental drive
Art centre – major centres only	Owl sanctuary
Art gallery – major galleries only	Park and ride – all year/seasonal
Artificial ski slope	Parking (rural only)
Bird garden	Picnic site
Bird sanctuary – not when in nature reserve	Pinetum
Boat hire	Pleasure flights
Boat trips	Pleasure park
Botanical gardens	Planetarium
Brass-rubbing centre	Pony trekking
Butterfly farm	Pottery
Campsite	Preserved railway
Canal trips	Public convenience (rural only)
Canoeing centre – including coastal features	Public hard
Caravan site	Public house
Camp/Caravan site	Public slipway
Castle	Public telephone
Cathedral	Rare breeds centre
Cave, cavern	Recreation centre
Country park	Reindeer park
Craft centre	Reptiliary
Cycle hire	River cruises
Cycle trails	Roman site – shown on ‘Hadrian’s Wall’ sheets only
Deer sanctuary	Safari park
Deer park	Sailing centre
Distillery	Seal sanctuary
Donkey sanctuary – major sanctuaries only	Shire horse centre
Dry ski slope	Skiing
Electric boat charging point – shown on ‘The Broads’ sheets only	Ski centre
Emergency telephone	Ski slope – described only when artificial
Falconry centre	Sports centre
Forestry Commission visitor centre	Swannery
Fort	Tennis centre
Garden	Theme park
Golf course/links	Tide mill
Hawk conservancy centre	Tourist information centre – all year/seasonal; includes tourist board, trail
Hawk reserve	Viewpoint
Hawk sanctuary	Vineyard
Heritage centre	Visitor centre
Hill fort	Walks
Hill figure – shown if accessible to the public	Waterfall
Historic house	Watermill
Horse riding	Waterskiing centre – including coastal features
Inn (rural only)	Water sports/activities – inland water areas only
Karting	Wildfowl centre
Leisure centre	Wildfowl reserve
Leisure pool	Wildlife centre
Model village	Wildlife park
24-hour moorings – shown on ‘The Broads’ sheet only	Windmill
Motoring organisation telephone	Windsurfing centre – including coastal features
Museum national heritage	Working farm
National Park information centre	Zoo