

ORDNANCE SURVEY GB

MINISCALE – TECHNICAL SPECIFICATION

Version History

Version	Date	Description
1.0	01/2009	Initial release
2.0	03/2018	Specification changes
3.0	21/12/2020	Specification changes

Purpose of this Document

This is the Technical Specification for the MiniScale product. This Specification provides greater insight into this product and its potential applications. For information on the contents and structure of MiniScale, please refer to the Product Guide.

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I. Introduction

I.1 Overview

Ordnance Survey’s MiniScale is a small-scale product designed for use within desktop graphic applications. It provides geographic context for the whole of Great Britain by showing the major boundaries, lines of communication, settlements and physical features.

MiniScale is a vector graphic that has been created using desktop publishing software so that it can be customised and converted into a wide variety of graphic formats. Alternatively, the raster examples can also be used for web applications or within a geographical information system (GIS) as a backdrop.

MiniScale is aimed at any customer who requires a high-quality, visually appealing map for their documents and/or publications, whether that be a magazine, brochure or website.

An extract of MiniScale, with default layers and styles, is shown below.



Figure 1: An extract of MiniScale showing default layers and styles.

2. Specification

The following tables and subsections include information about MiniScale file compression, symbology, georeferencing and formats.

Data source	MiniScale is a redrawn and simplified product designed to meet the needs of the desktop graphics industry. Historically, it is based on a variety of Ordnance Survey digital datasets; however, the graphic output is now updated with changes identified in the 1:250,000 vector data base.
Availability	Great Britain
Scales	1:1,000,000 (1 mm = 1 km) MiniScale is designed to be used at viewing scales of between 1:700,000 and 1:2,000,000
Physical size (at scale above)	Great Britain = 700 mm wide by 1,300 mm high (with the Shetland Islands in position). Orkney and Shetland can be inset to reduce the height to about 1,000 mm.
Resolution	Postscript = resolution of output device Raster = 254 dpi
Supply media	Download
Data type	Desktop vector graphic (Illustrator and EPS vectors), CMYK colour space
Colour	Raster LZW data is RGB colour
Update interval	Great Britain data revised annually
Coordinate reference system	British National Grid (OSGB36)

Data structure and size	Postscript Vector		Raster	
	Transfer format/s	Storage volumes are approximate	Transfer format/s	Storage volumes are approximate
	Editable EPS Illustrator CC 2019	Editable 95 Mb Illustrator 30 Mb	TIFF LZW compressed 254 dpi	TIFF 15 – 40 Mb (choice of four example styles)
Layers and styles	Yes, see features layers and styles		TIFF LZW – none	

2.1 Fonts

The Illustrator file requires the font ‘Source Sans Pro’. This is a free open source font created by Adobe. It is available from Adobe and Font Squirrel: <http://www.fontsquirrel.com/fonts/source-sans-pro>.

2.2 Colours

The default colours for MiniScale vectors are four-colour process (CMYK).

MiniScale raster examples are supplied as TIFF LZW (RGB).

2.3 National Grid

A 100 km grid is provided as a separate layer. This is set as an invisible layer by default. The 100 km grid is constructed from individual squares to enable them to be used easily for clipping and so on. A further non-printing layer holds the 100 km letter references to ease identification of the squares. For Illustrator users, the rulers have been set to match the zero point for National Grid. When the file is used at 1:1,000,000 scale and providing the rulers or page position have not been moved, the measurements can be used as National Grid coordinates (preferences must be set to millimetres). For example, the tip of Flamborough Head has an Illustrator coordinate of $x = 525.85$ mm and $y = 470.51$ mm, which corresponds to a National Grid reference of 5258 4705 (or TA 258 705); in Illustrator, the y value will be a minus value.

2.4 National Grid coordinates for the raster versions

The raster files have been provided for GIS users who might otherwise be unable to use the Illustrator or EPS files. The origin (lower-left corner) of the GB file is 0, 0 km and it finishes at 700 km east and 1,300 km north of the National Grid origin. This equates, at 254 dpi, to 7,000 pixels wide by 13,000 pixels high (100 km = 1,000 pixels).

2.5 Ireland and the Channel Islands

Parts of the French and Irish coastlines have been included to help give context to the position of Great Britain. Although reasonably accurate, they use different map projections to GB and fall outside the National Grid. Their position and scale are therefore approximate. This also applies to the Channel Islands.

2.6 Boundaries

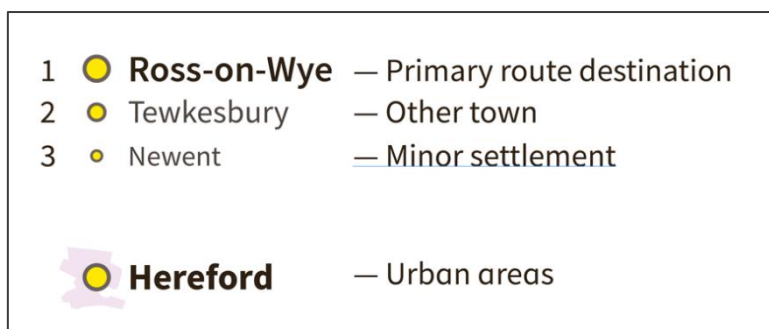
National, county and unitary authority boundaries are shown. County and unitary boundaries are depicted by the same style. Boundaries within the London Authority area are shown on a separate optional extras layer.

2.7 Depiction of roads and towns

MiniScale shows three classes of roads: A-Road with primary/non-primary styles and Motorway.

The primary (green) roads are the recommended through routes that complement the motorway system. Where there are significant lengths of dual carriageway, they have been shown with a dual carriageway style. The primary roads link primary route destination towns, which appear on green road signs. In congested urban areas, some roads have been omitted for clarity.

MiniScale settlements are shown in three levels: Primary route destination towns (large dot), other towns useful to the map (medium dot) and minor settlements (small dot).



Urban names have been given a range of point sizes and weights to visually differentiate them. No statistical relevance, such as size or population, should be inferred from this. Primary route destination names are all the same regardless of their physical size: thus, the hamlet of Scotch Corner appears the same on the map as a major town like Andover as these two settlements are both primary route destinations. Due to space issues, many suburban localities will be missing around major cities. The choice of which minor names we have space to show are weighted in favour of those that give context to the road network.

2.8 Welsh spellings

At the scale used for MiniScale it is impractical to show all the Welsh names with dual spellings (English and Welsh). However, the Illustrator file contains an extra layer of Welsh names that can be used to replace the English ones; this requires manual intervention since the Welsh names are in the same position as the English names.

2.9 Shaded relief file

Raster examples of MiniScale with shaded relief are provided to show what can be achieved with the Illustrator files. The relief file is embedded with individual 100 km shaded relief images fitted to the National Grid. These can be added to the main MiniScale map by using Illustrator's 'Paste in front' option. Use the 'multiply' setting to control the transparency and strength of the shaded relief.

2.10 Using add-on files/merging earlier files

The shaded relief tiles are provided in a second Illustrator file. The document size and position of this relief file match that of the main MiniScale Illustrator file. Use the 'paste in front' command to copy the relief into the right position on the MiniScale map. Position the relief layer for desired effect. Use the 'multiply' setting to make detail underneath show through. If the document size and position have been changed, then use the 100 km squares to fit the relief tiles to.

2.11 Managing MiniScale files

MiniScale has been created as a vector data graphic map that is favourable for use within desktop graphic applications. MiniScale's use within GIS will be limited to backdrop mapping when using the TIFF only.

MiniScale is supplied as a single download with a variety of industry-standard formats. The Illustrator vector data is held in layers, with styled objects for easy customisation of map images. These can be easily converted to web images using appropriate software (not supplied).

2.12 File formats

MiniScale is maintained using Adobe Illustrator software. All the capabilities of editing and styling MiniScale may not be available in other applications.

Raster versions are also provided at 254 dpi. The TIFFs are LZW compressed and in RGB colours. New raster files can be created, styled and layered as required by using the Illustrator data.

3. Software Requirements

MiniScale requires Illustrator CC 2019 or higher running on a PC or Apple Macintosh platform. Other EPS-compatible software can also be used by importing the EPS files. Ordnance Survey does not specify hardware requirements as these are dependent on the software and applications within which the data will be used. Customers should contact their system or software supplier for advice.

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