



View OS MasterMap® data in GIS or CAD

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What formats are available?

There are several different layers of OS MasterMap data available from OS Data Download. The formats for each layer vary – see the table below for details:

| Name | Formats |
|---|--|
| Topography | DWG; File Geodatabase; Geopackage |
| Building Height Attribute | DWG; File Geodatabase; CSV |
| Greenspace | SHAPE, GML3 |
| Highways - All | File Geodatabase |
| Highways - Paths | GML3 |
| Highways - Roads | GML3 |
| Sites layer | File Geodatabase; GeoPackage; DWG; SHAPE |
| Water Network | GML3 |
| Integrated Transport Network (ITN) NOTE this product was last updated in 2019. Available in the Archived category. | GML2 |

What are the formats?

- **File Geodatabase** - this is a proprietary GIS data format developed by ESRI but can be read by other GIS software.
- **Geopackage** - an open, non-proprietary, platform-independent and standards-based data format for geographic information. Can be read by most GIS software.
- **DWG** - this is the native drawing format for AutoCAD. It can be read by most CAD applications including Vectorworks and ArchiCAD.
- **SHAPE** - shapefile format is a digital vector storage format for storing geometric location and associated attribute information. Introduced in the early 1990s. It is possible to use shapefiles with a wide variety of software.
- **GML** – Geography Markup Language is an XML format defined by the [Open Geospatial Consortium](#).
- **CSV** – Comma Separated Value format. Can be added to most software.



Topography

Suggested methods for viewing the topography data in the main GIS/CAD packages follow:

ArcGIS Desktop or Pro

Download the data in **File Geodatabase** format and open in ArcGIS through the Add Data button. No conversion is required. Files to apply a cartographic style [are available on our help page](#).

AutoCAD

Download the data in **DWG** format and then open in AutoCAD. No conversion is required. Note this data has a default representation and attributes are stored as extended object data, xdata.

QGIS

Download the data in **Geopackage** format and open in QGIS through the Add Vector Layer function. No conversion is required. Files to apply a cartographic style [are available on our help page](#).



Building Height Attribute

Suggested methods for viewing the BHA data in the main GIS/CAD packages follow:

ArcGIS Desktop or Pro

Download the data in **File Geodatabase** format and open in ArcGIS through the Add Data button. No conversion is required. [Check instructions on our help page for ArcGIS Pro.](#)

AutoCAD

Download the data in **DWG** format and then open in AutoCAD. No conversion is required. [Check instructions on our help page.](#)

QGIS

Download the data in File Geodatabase format. [Check the instructions on our help page.](#)



OS MasterMap Highways (Paths or Roads only)

- ArcGIS Pro and Desktop users: load the GML data into [UK Data Loader](#).
- Other GIS and CAD packages may be able to read the GML2 data directly.

OS MasterMap Water Network

- ArcGIS Pro and Desktop users: load the GML data into [UK Data Loader](#).
- Other GIS and CAD packages may be able to read the GML2 data directly.

Integrated Transport Network layer

OS MasterMap ® Integrated Transport Network™ (ITN) Layer has not been updated since 2019. It is available in the OS Data Download Archived category. **We recommend you download OS MasterMap Highways Network.**

If you need to use ITN, it is available in GML2 format. In order to build a topological network from the data we recommend using the following tools:

- ArcGIS Pro users: [UK Data Loader](#) produced by ESRI UK.
- ArcGIS Desktop users: [Productivity Suite](#) produced by ESRI UK.
- Other GIS and CAD packages may be able to read the GML2 data directly.



Accessing software

ArcGIS (including Productivity Suite)

To check if your institution has access to this software:

- Check with your teaching staff or
- Contact your Digimap local support (check My Digimap then My Collections for details of your local support), or
- email [Chest software licensing](#) to find your local Chest contact, who can advise if your institution licenses this software.

If you already have a licence for Productivity Suite, but want the latest version, it is available for download from the [ESRI UK website](#).

UK Data Loader

This tool loads GML data into a geodatabase. The tool can be downloaded from [the ESRI UK website](#).

The password required to unzip the UK Data Loader is **ZdR&6Bdc**

The package includes a user guide which will help you get started with the loading tools. If you have any questions please contact [ESRI UK technical support](#). The UK Data Loader is licensed by Esri UK subject to the Esri UK Software License Agreement and your use of the software will indicate your acceptance of these terms.

AutoCAD

A wide range of Autodesk software, including **AutoCAD** and **AutoCAD Map 3D**, is free for educational use and can be downloaded from the [Autodesk website](#).

QGIS

The latest version of **QGIS** can be downloaded from the [QGIS website](#).