

Questions to consider when choosing OS MasterMap[®] data loading and management software

This checklist is intended for technical staff who are evaluating software for loading and managing OS MasterMap data.

Although Ordnance Survey does not accredit or recommend particular OS MasterMap software, we are working jointly with our partners to ensure that customers are able to utilise OS MasterMap data.

We hope the following points help our customers to ask the right technical questions of their existing or potential system suppliers. We do not intend that our customers use this as a fixed requirements list for their systems; rather they are factors to consider in the light of your particular application. Some are likely to be less relevant to your application than others.

1 Should I use an Ordnance Survey Licensed Partner value-added product or service?

Is it in your best interests to handle the compressed Geography Mark-Up Language (GML) data supplied directly by Ordnance Survey yourself? Some Ordnance Survey Licensed Partners have developed OS MasterMap value-added products and services which may offer efficiencies in your particular application. Do any such companies offer services you should investigate?

In the following we assume that you have decided to deal with GML data yourself, and are seeking software to load and manage this data.

2 Which of the OS MasterMap layers does the software support?

There are now four OS MasterMap layers (Topography Layer, Address Layer, ITN Layer and Imagery Layer). Before entering into a contract for a particular layer, you need to ensure that the software you plan to purchase supports the layer you are interested in. The entries listed on the systems/software page indicate which of the layers a selection of Ordnance Survey Partner's software supports. This information is for guidance only. Please note that it is your responsibility to verify whether or not the software provider you choose can satisfy your OS MasterMap requirements. If that is the case, your contract for the supply of the software will be with your chosen software provider and not with Ordnance Survey.

Ordnance Survey is actively working with OS MasterMap system suppliers however, Ordnance Survey cannot guarantee the currency of the information provided on the systems/software page. Please note that this is not an exhaustive list of all OS MasterMap compatible software vendors.

3 Do you want the software to read the data while you're not there?

How much time will it take to load/translate the data you will be using, both the initial supply and the change-only updates? Is data loading/translation fully automatic or does it require user interaction? If automatic, how does the software deal with unexpected issues in the load process? For example, what would the software do if a loaded feature in change-only update has the same Topographic Identifier (TOID®) but an earlier version number than a feature already held?

4 Can the software read the OS MasterMap compressed data files directly?

The largest OS MasterMap files, when uncompressed, can exceed operating system maximum file sizes. Some software avoids this by reading the compressed GML data files directly. What are the working disk space and memory requirements of the software? Does it place limitations on the size of GML files that can be read?

5 Is the software suitable for the quantity of OS MasterMap you will be using?

Some software is optimised to read/view small areas of OS MasterMap, whereas other packages are designed to manage large data holdings.

6 Do you need software based on a Database Management System (DBMS)?

If your data extent is large, and you want to exploit the full power and flexibility of OS MasterMap, you might need to manage your OS MasterMap data in a Database Management System and serve the data across your organisation. Mainstream geographical information systems (GIS) packages are usually capable of interfacing to a DBMS.

7 What aspects of the loading/translation can be customised by the user?

For instance, can you specify rules based on feature attributes to define subsets (layers, tables) of features? Do you have full control over cartographic depiction of features? Can you choose to exclude some information to reduce storage requirements?

8 Does the software load/translate all the information in the GML file?

For instance, is all the file metadata information included? Are all feature attributes included in full? If not, what information is discarded or changed? Is this important in your application?

9 Is the software supplier committed to support improvements to OS MasterMap?

How responsive will they be to changes in the data format and content, and improvements to the OS MasterMap online services? Do they already have plans for future releases of the software?

Ordnance Survey is working with system suppliers to ensure that they understand and implement changes to OS MasterMap data format and content.

10 Is the software designed for your preferred hardware/network configuration?

For example, you might want to use OS MasterMap data on stand-alone machines, LAN, WAN and so on. If you store copies of your data holding on several servers, does the software enable you to apply change-only update on each server?

11 Does the software store OS MasterMap data efficiently?

For example, text attribute lengths in OS MasterMap vary greatly – it is inefficient to store these in fixed-width data fields. Is the storage format suitable for the content of OS MasterMap data?

12 How efficiently does the software handle duplicate features when loading data?

OS MasterMap features are identified by their unique TOID and version number. Several key processes, including initial loading of multiple GML files, and application of change-only update, require efficient duplicate feature detection. This is a major factor in the overall efficiency of these processes.

13 Does the software make best use of the GML file-level metadata?

This metadata includes the chunk boundary polygon, the time of data supply, and the themes supplied. For examples, this metadata could be used by the software to: detect holes or missing areas in the loaded data; detect load of repeated or outdated files; warn the user of data currency (query date) mismatches between adjacent areas; generate parameters for requesting change-only update or extending the user-data holding; identify unmaintained features outside the data holding boundary.

14 Does the software remove features correctly; can it create a feature archive?

When processing change-only updates, how does the software handle features which are no longer current in your data holding? These may be old versions of features for which replacement versions have been supplied, features which have been deleted, or features which still exist but which have moved out of the area or themes of your data holding. If you want to maintain an archive of departed feature versions, does the software allow this? Does the archive generated by the software serve the needs of your application?

15 Does the software provide tools to create your application features efficiently?

A key benefit of OS MasterMap compared to Land-Line® is the faster and easier creation of your application-specific spatial features (for example, layers of polygons) based on OS MasterMap topographic features. Does the software provide tools that make best use of this? Does it create references (by TOID and version number) to the OS MasterMap features that are used in whole or part to create each application feature? This could be crucial to keeping your application datasets up to date. Does the software allow you to store application features solely by reference to OS MasterMap features, rather than as separate geometric features, if that is what you want to do?

16 Does the software provide tools to maintain your features efficiently?

OS MasterMap change-only update allows your software to detect which of your own application features, created in whole or part from OS MasterMap features, may need to change when you update your OS MasterMap holding. Does the software exploit this benefit? Does it give you flexibility to set rules for update of different types of application features based on OS MasterMap change-only update? Can it make intelligent guesses about changes to application features which make your interactive update sessions easier?

17 Does the software apply the contents and structure of the OS MasterMap GML files as per the XML schema files and DTDs (Document Type Definition)?

The XML schema files and DTDs (Document Type Definition) define the contents and structure of the OS MasterMap GML files. System suppliers conform to these schema files but may also manipulate the contents and structure for application or visualisation specific purposes.

18 Does the software apply the style definitions and mapping styles to features as per the OS MasterMap user guide?

These styles have been designed to be applicable for a large number of applications but are not intended to be the only way to portray OS MasterMap. Software providers may utilise these styles, apply them in different ways and/or give customers the flexibility to determine the styles.



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