

Cadcorp SIS Spatial Information System



Solutions for Ordnance Survey MasterMap

In February 2001, Cadcorp SIS was acknowledged as the first commercial GIS to demonstrate the loading, display and manipulation of MasterMap data.

Now, Cadcorp SIS – Spatial Information System – offers end users a scaleable set of tools for managing MasterMap. This includes file based loading of data at one end of the spectrum, to the storage of MasterMap data in databases at the other. Users can select the degree of detail they wish to store with their MasterMap data holding. Cadcorp also provide the capability to effectively handle MasterMap 'change only updates' supplied by Ordnance Survey.



This solution comes from the UK's recognised pioneer in OpenGIS standards. Never has managing MasterMap been this easy, flexible or cost effective.

MasterMap data stores	
Format / Database	Supported
GML 2	●
GZIP	●
Oracle	●
SQL Server	●
Microsoft Access	●

MasterMap – What is it?

MasterMap is a major new digital map product from Ordnance Survey, the British national mapping agency.

MasterMap encompasses several new ways of managing and providing large-scale digital data to customers. It is expected that MasterMap will eventually replace the flagship Land-Line digital data product which is stored in National Transfer Format (NTF). Also, MasterMap will be at the core of future digital map products.

MasterMap introduces significant changes to the way large-scale base mapping data is provided, stored, used, updated and priced. Significantly, MasterMap is provided in GML2 format (Geography Mark-up Language v2.0) an OpenGIS standard for data distribution.

MasterMap is made up of uniquely identified 'real-world' features created as either points, lines or polygons. Each feature has a unique Topographic Identifier or TOID. MasterMap can be supplied topologically structured. Data comes in seamless, irregular shapes or 'chunks'. Related data can be selected for supply as themes based on real world association, for example roads, buildings and railways.

MasterMap users will be able to acquire data updates via the web. Indications are that the compressed chunks may be very large, (up to 10 times larger than the NTF equivalent) at least in early transactions.

Cadcorp SIS – MasterMap for the desktop

For users simply interested in taking small amounts of MasterMap into a system, Cadcorp SIS V6 offers the MasterMap plug-in dataset which reads raw GML2. This format is one of over 50 types offered with Cadcorp SIS. Using this method, MasterMap is loaded into system memory as a graphic file which can then be viewed, queried, manipulated and printed out. As a rule this method is best suited to modest quantities of data because of the inevitable memory demanded when loading.



Cadcorp SIS displaying MasterMap

Significantly, because Cadcorp SIS doesn't have to alter the data when it is loaded, the structural integrity of MasterMap is retained. Other GIS products work by offering 'log-based' translation routes from GML2 or Gzip to other formats, like SHP and MIF/MID, which are incapable of maximising the benefits of MasterMap's topological structure.

Within Cadcorp SIS you will find that our commitment to integrating data formats removes the need for unnecessary data processing and the need for third party products.



Plug-in performance comparison

Competitor GML 2 translator

- **Input:** 691-SU5848-5c1.gzip (Topology) 12Mb
- **Output option:** ESRI SHP 7 separate shape files breaking down the data in to point, line, area (size = 59 MB)
- **Time taken:** 13 minutes 30 seconds (36 MB)
- **Output option:** MIF/ MID Data as above; 13 minutes 56 seconds

Cadcorp SIS MasterMap data plug-in

- **Input:** 691-SU5848-5c1.gzip (Topology) 12Mb (no translation necessary)
- **Time taken:** 3 minutes 21 seconds

Equipment Used: Dell Inspiron 8000 Laptop,
Pentium 1Ghz with 256Mb RAM



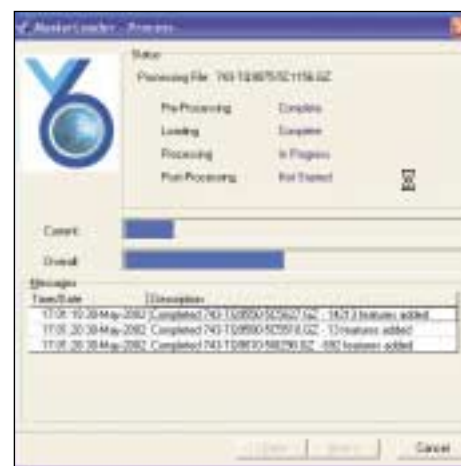
MasterMap Loader Theme Filter

Cadcorp SIS – MasterMap for the enterprise

For the enterprise user, the Cadcorp SIS MasterMap Loader offers an easy route to scaleable and dynamic database management of MasterMap. Supplied with Cadcorp SIS Map Modeller, it can be used to load MasterMap data directly into almost any database, including Oracle9i, SQL Server and Access 2000.



Cadcorp SIS MasterMap Loader Wizard



MasterMap Loader Process Reporting

The MasterMap Loader offers the following options and advantages for the user:

- Swift performance
- Theme Selection
- Filter Creation
- Easy to use Wizard
- Batch automation
- In-process monitoring and reporting
- Change only update
- Can be used by DBAs and GIS professionals alike
- Removes the need for unwieldy middleware
- Free with Cadcorp SIS Map Modeller

Cadcorp SIS users can additionally choose to use Editable BLOBs (Binary Large Objects) or OpenGIS SQL92 to store topological and independent polygon MasterMap data respectively.

The database approach gives the enterprise a route to manage huge volumes of MasterMap data in a multi-user environment.

Cadcorp SIS also supports multiple user direct read and write to Oracle 9i Spatial (Object Relational Model) which allows all of a user's data to be read from MasterMap GML straight into Oracle 9i, at no additional cost.

Business as usual

Cadcorp has long prided itself on first rate support for Ordnance Survey digital map data. Cadcorp first provided on-the-fly reading of NTF at no additional cost in Cadcorp SIS more than five years ago. Cadcorp SIS is one of the few products to support CITF, the internal Ordnance Survey format. With the introduction of MasterMap it is business as usual, providing various options for managing Ordnance Survey data at no extra cost. Why pay more? Why look at third party tools or middleware when a ready to use, integrated solution exists?

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