

Version 2.12 of the GEBCO Digital Atlas Software Interface

The GEBCO Digital Atlas (GDA) CDROM includes a Software Interface that provides the user with wide-ranging facilities for displaying, querying and exporting data from the various data sets contained in the GDA.

Version 2.12 of the Software Interface has been updated to include new software features and supersedes versions 2.0 and 1.0.

New in version 2.12 – released in May 2009

- The GDA Software Interface has now been updated to give the user the option to view and access data from all GEBCO's gridded bathymetric data sets. Previous versions only allowed access to the GEBCO One Minute Grid.
- Users now have the option to export data from GEBCO's gridded bathymetric data sets in an ASCII form suitable for conversion to an ESRI raster file using ESRI data conversion software.
- The software has been updated to work with read-only versions of the source data files. This has proved useful in some cases where the software is used over a network.

Running version 2.12 of the GDA Software Interface

To run the latest version of the GDA software interface, you will need a PC running Microsoft Windows 95 or later. You will need to run the software from a directory on the hard disk of your PC, rather than directly from the GDA CDROM. This requires at least the following amounts of free disk space:

- 1.9 GB to work with the GEBCO_08 Grid only
- 650 MB to work with the GEBCO One Minute Grid only
- 2.4 GB to work with both gridded data sets

You will need to:

1. Create a directory on the hard disk of your PC and copy across the following directories from disc 1 of the GDA CDROM set:
 - ASCIIDOC
 - ATLAS
 - CARTER
 - Grid

2. Download the compressed file which contains version 2.12 of the GDA Software Interface and updated text and user guide files from the internet onto hard disk of your PC.

This file can be found on the 'Software updates' page for the GEBCO Digital Atlas (http://www.bodc.ac.uk/help_and_hints/software_updates/gebco.html).

3. Uncompress the compressed file. The GDA Software Interface (GebcoCE.exe); data set and software user guides (Manual.pdf and Help.pdf) should reside in the directory created during step 1.

The file, 'GEXPORT.txt', should be moved to the 'ASCIIDOC' directory to replace the existing file of that name. This should occur automatically as you uncompress the zip file. You may be asked if you wish to replace the existing 'GEXPORT.txt' file.

4. The GEBCO grid files that you wish to work with and their accompanying documentation files should be located in the 'Grid' directory.

The latest versions of the GEBCO grid and documentation files are available to download http://www.bodc.ac.uk/data/online_delivery/gebco/.

You can find out the version number of your grid files from the header information in the netCDF file. This can be viewed using the GDA Software Interface from the 'Help – About' menu option from the main toolbar.

Please note - working with the GEBCO One Minute Grid file

If you wish to work with the original GEBCO One Minute Grid then you will need to rename the data file. In the 'Grid' directory rename the file 'gridone.grd' to 'gridone.nc'. You will also need to rename the help file which accompanies the grid from 'GridHelp.pdf' to 'gridone.pdf'.

5. To use the software simply run the GebcoCE.exe file.

If you encounter any problems when using the software then please refer to the 'Software updates' web page for the GEBCO Digital Atlas at the link given above. Alternatively, please contact BODC at enquiries@bodc.ac.uk and provide as much information as possible about the error encountered.

Previous releases

Version 2.0 – released in July 2006

Version 2.0 of the GDA Software Interface was released in July 2006 to replace version 1.0 (released in March 2003) and includes the bug fixes and additional software features listed below. It is now superseded by version 2.11.

New software features

1. Magnifying lens option

This option allows you to display the area under the cursor as if it were viewed through a magnifying lens. The image is displayed in a ‘magnified view’ window shown in the display area. As you move the cursor across the screen, the image in the ‘magnified view’ window changes.

You can change the magnification factor and the size of the window by placing the cursor inside the window. This gives you access to the magnification factor and size (in pixels) slider bars. A right mouse click will close this window.

Magnification factor slider bar

Use the left mouse button to click on the slider bar to increase or decrease the magnification factor, e.g. 2 gives a magnification of 2 x normal viewing size.

Size (in pixels) slider bar

Use the left mouse button to click on the slider bar to increase or decrease the pixel size of the ‘magnified view’ window.

You can select either a round or a square ‘magnified view’ window, using the option from the **Display – Magnified View** menu.

2 Displaying the position of geographic names of undersea features by feature type

This option allows you to display the position of features from the International Hydrographic Organization (IHO)/ Intergovernmental Oceanographic Commission (IOC) Gazetteer of Geographic Names of Undersea Features by feature type. For example you can choose to display just the positions of seamounts or just the positions of seamounts and ridges.

This menu option produces a dialog box from which you can select the various feature types that you want to display.

3 Displaying feature names in the map display area

This option toggles the display of feature names for single point and two-point features from the IHO/IOC Gazetteer of Geographic Names of Undersea Features in the map display area.

You can change the size and the colour of the text using the options from the 'supplementary toolbar' described below.

4 Display point data from user defined data files

This option allows you to display your own file(s) of point data in the map display area. Up to ten files can be displayed at one time. From this menu option you can browse to the location of your data point file(s).

In addition to position information, the file(s) can include attribute information, which can be queried using the options from the **Map – Query** menu. The user data file names are given at the end of this menu list. Just click on the file name so that you can query any attribute information for the data points in this file.

You can change the colour of the symbol used to display the point features from the **Select – Colour – Supplementary Data – 'user defined data file name'** menu option. To change the style and size of the symbol go to the **Select – Style - Supplementary Data – 'user defined data file name'** menu option.

The 'user defined data files' should be of the format:

Latitude longitude [DisplayCode] [attribute]

The latitude and longitude co-ordinates can be either:

- i) signed floating point numbers with north and east positive and south and west negative
- ii) positive values followed by a space and a hemisphere indicator (N,S,W,E)

There should be at least one space character between items in the list. Items in [] are optional.

When a DisplayCode is used, all the attribute information will be displayed on the map. Without a DisplayCode the attribute information is available through the **Map – Query – 'user defined data file name'** menu option.

The DisplayCode value determines how the attribute information is displayed relative to the point. It must be between 1 and 9 thus:

1 2 3

4 5 6 where the mid point (5) is the point itself.
7 8 9

Example 1:

```
27.0000 -113.0000 6 BAJA CALIFORNIA, GUADAL  
-67.3982 164.7017 6 BALLENY  
30.0000 -60.0000 6 BERMUDA
```

The above example shows the co-ordinates as signed floating point numbers with accompanying attribute information. A 'DisplayCode' value of '6' is also included, which means that the attribute information will plot to the right of the data points.

Example 2:

```
27.0000 N 113.0000 W CALIFORNIA, GUADAL  
67.3982 S 164.7017 E BALLENY  
30.0000 N 60.0000 W BERMUDA
```

The above example shows the co-ordinates as positive floating point numbers followed by a hemisphere indicator (N,S,W,E). A 'DisplayCode' value is not included and so the attribute information will not be displayed on screen. However, this information can be queried using the **Map – Query – 'user defined data file name'** menu option.

If a 'DisplayCode' value is not included and the attribute information consists of a single-digit number then please be aware that this number will be interpreted as the 'DisplayCode' value.

The size of the data files is restricted only by a performance decrease and computer memory. It has not been extensively stress tested.

The software retains the 'user defined data file name' in its lists of files to display unless this file is removed from the display. To 'remove' the file use the following menu option **Select – Supplementary Data – Remove User Defined Data**. This opens a dialog box; from this box select the name of the file to remove from the display.

5 Supplementary toolbar

This option lets you toggle the display of the supplementary toolbar.

This toolbar provides a quick route to options for selecting the colour and style to use for plotting some of the vector data sets available for display through the GDA.

Version 1.0 – released in March 2003

This release had the following reported bugs which are fixed in versions 2.11 and 2.0.

- Links to web sites through the Help Menu were not enabled.
- If your system was set up to use a comma as the decimal separator instead of a dot then an error was displayed on loading.

'-180.0' is not a valid floating point value