An overview of version 2.0 of the GEBCO Digital Atlas Software Interface

The GEBCO Digital Atlas (GDA) CDROM includes a software interface which provides the user with wide-ranging facilities for displaying, querying and exporting data from the various data sets contained in the GDA. Version 1.0 of the software interface has been updated to fix reported bugs and to include new software features.

Bug Fixes

The following describes the bug fixes included in version 2.0 of the GDA Software Interface.

1. Web site links through the help menu have now been enabled.

2. Version 1.0 of the GDA Software Interface fails when a comma is used as a decimal separator instead of a dot. This results in the following error message: "'-180.0' is not a valid floating point value". This bug has now been fixed in version 2.0.

New software features

The following describes the new software features included in version 2.0 of the GDA Software Interface.

For each section listed below, the text in bold directs you through the menu navigation to the described option, e.g. **Map – Magnify** refers to the magnify option which can be found from the **Map** menu on the main toolbar

1. Magnifying lens option

Map - Magnify

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 by using the option from the **Display – Magnified View** menu.

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

Display – Supplementary data – Undersea Features - Types

This option allows you to select 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 select 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

Display – Supplementary Data – Undersea Features - Name

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

Select – Supplementary Data – Add User Defined Data

This option allows you to select 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

Window – 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.

6 Running version 2.0 of the GDA Software Interface

To run the latest version of the GDA software interface, you will need a PC operating under Microsoft Windows 95 or later. You will need to run the software from a directory on the hard disc of your PC rather than directly from the GDA CDROM. This requires at least 600 MB of free space.

You will need to:

1. Create a directory on the hard disc of your PC. Copy the contents of disc 1 of the GDA CDROM set into this directory, **with the following exceptions:**

    - the ACROREAD directory
    - the original version of the software interface GebcoCE.exe
    - Software User Guide, help.pdf.

2. Download the compressed file which contains version 2.0 of the GDA software interface and the updated Software User Guide (help.pdf) from the web onto the hard disc of your PC.

This file can be found on the 'Hints, bugs and fixes' page for the GEBCO Digital Atlas (http://www.bodc.ac.uk/help_and_hints/software_updates/gebco.html).

3. Uncompress the file. The help.pdf and GebcoCE.exe files contained in the compressed file should reside in the directory created in step 1 above.

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

If you encounter any problems when using the software then please refer to the 'Hints, bugs and fixes' 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.