Gulf Mapping DVD Version 5.5

Introduction

This DVD includes various types of mapping data and a limited version of Global Mapper software. This software was chosen for its flexibility and powerful features, even in the limited version. The datasets were created from a variety of sources including NOAA, Landsat, MMS, the Texas GLO, USGS, gps points, and newly created data. All datasets are projected in the WGS84 coordinate system to match the most common gps default system.

***Note**: Do not use the "GPS" menu unless your computer is connected to a gps unit and you configure the unit for operation with Global Mapper. Doing so without a gps unit connected may cause the program to freeze while it tries to search for your gps unit. If this does happen, hit Ctrl+Alt+Delete and stop the program. This function is used to track your position in real time and generally not used unless you have a laptop on the boat. You also must have a full version of Global Mapper to use this feature. There is also a new feature using the full version where you can save a map window and send it to a Garmin Oregon, Montana and other compatible units.*

Technical Assistance

Technical assistance is provided only to registered users. Contact:

Shawn Vickers
shawn@kivaconsulting.com
(830) 372-1078

There are other programs available at:

www.kivaconsulting.com/Files.htm

Updates

New dataset for 5.5: World Ocean place names. See Appendix A.
Please email us periodically to check for data updates.

Installation

The installation menu should come up if you have auto read turned on for you dvd drive. If it does not, you go to My Computer and double click your DVD drive. If you still have trouble getting the installation menu to come up, you can go to your DVD drive and right click and "Explore" it to find the installation exe files. Call if you have trouble.

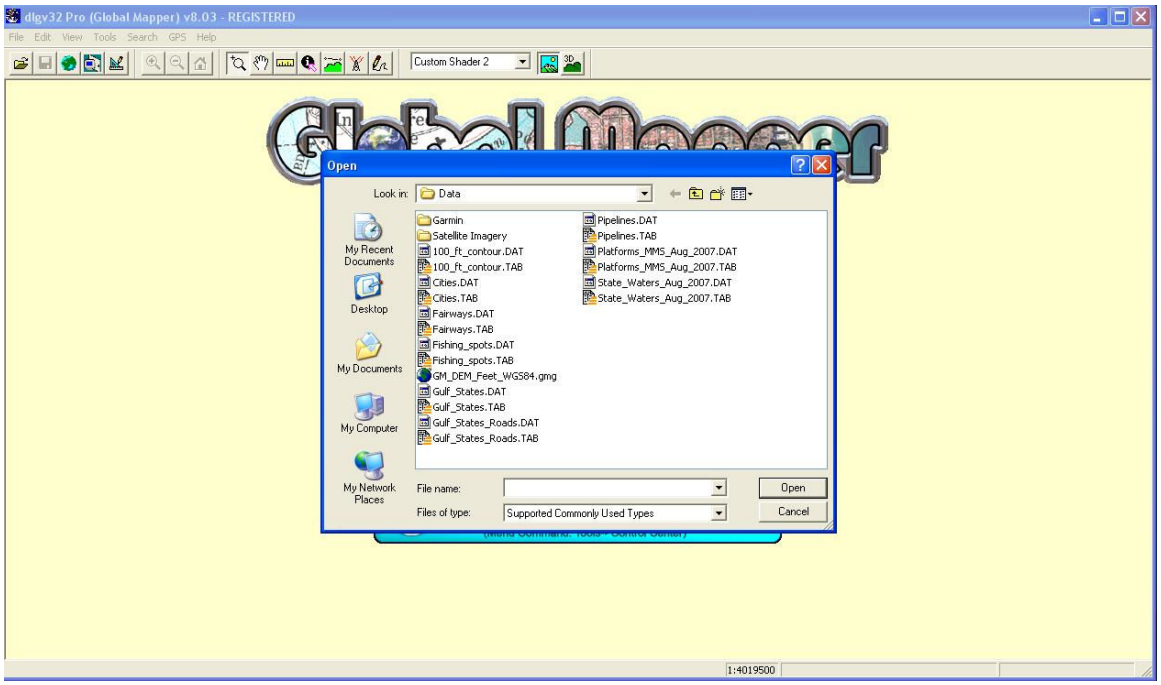
From the installation menu, choose from the system types (32 bit or 64 bit). If you do not know your system type, chances are it is 32 bit. Once you have installed Global Mapper it may launch the program. Choose "Continue with registering". You do not have to have the full version to view the data.

Next, install the data. The default folder will be C:\Gulf Mapping. You may change this location if you like. The data will take a while to install.

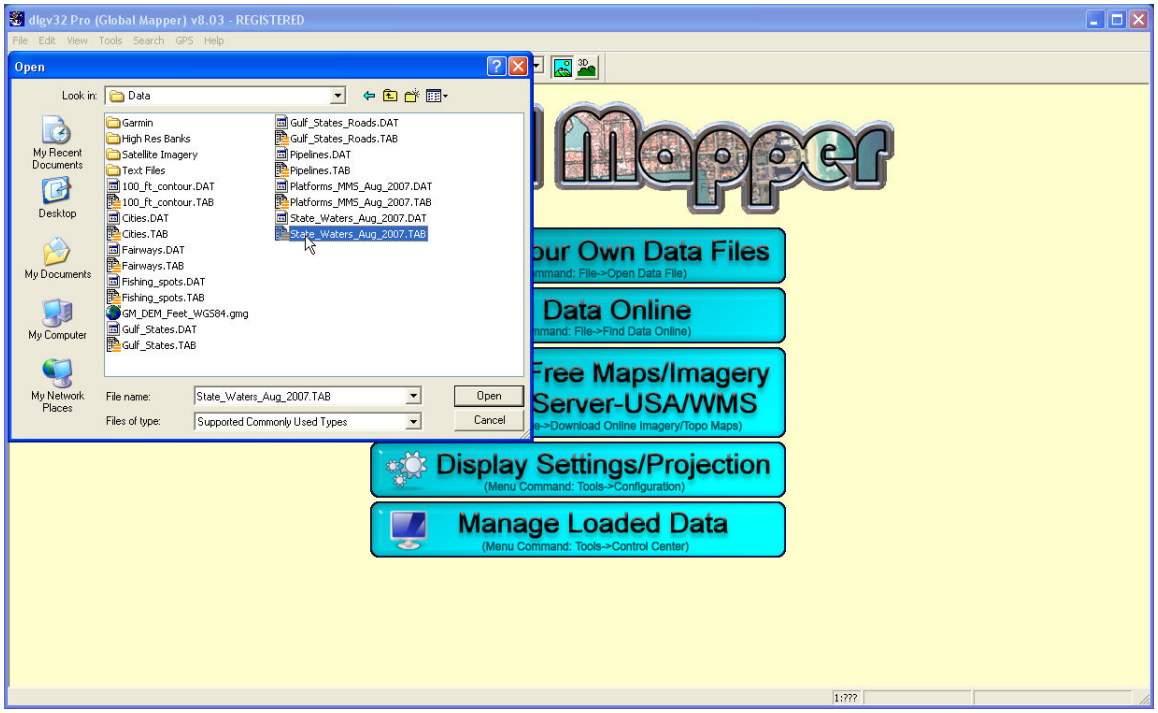
Operation

Upon running Global Mapper, the initial screen will appear:

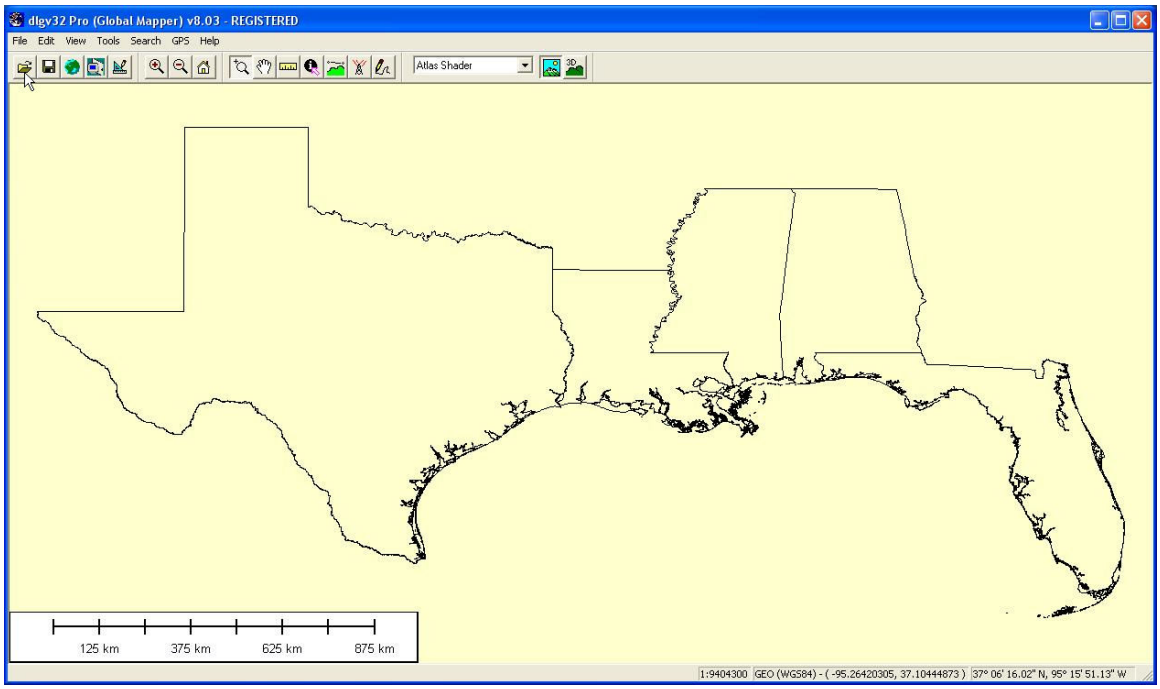
Generally, you will only need the "Open Your Own Data Files" option. Once you begin loading data, this screen will go away. You will notice that there are many types of data that can be loaded by clicking the "Files of Type" pull down menu in the "Open" dialog. Most of the time, you will use the "Supported Commonly Used Types" choice.



Note: Only open files with the ".TAB" extension when you see multiple files with the same name. The ".DAT" file is merely a reference file for the ".TAB" file and need not be opened. It will automatically open along with the ".TAB" file. If you try to open the ".DAT" file, Global Mapper will interpret the data as ASCII and potentially incorrectly open the file.

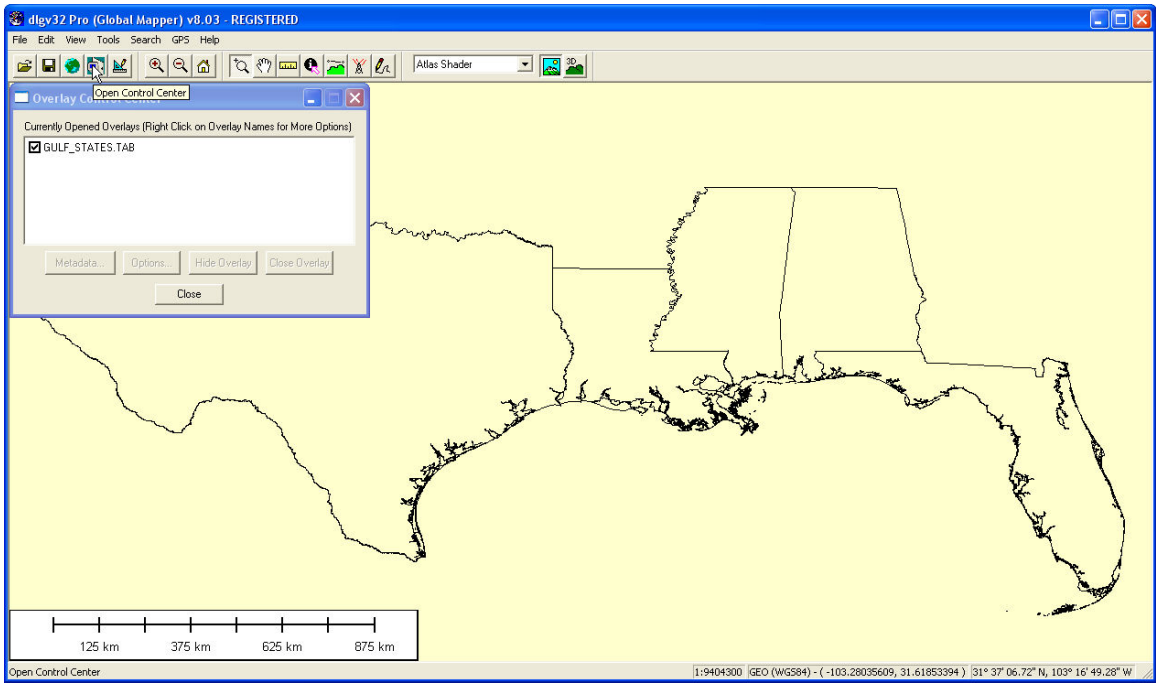


Below is a view of the “Gulf_States.tab” set loaded (may be a “USA.tab” or “Gulf_States_Roads.tab” in your data). Should you want to close all files and start over, go to “File” and “Unload All”.



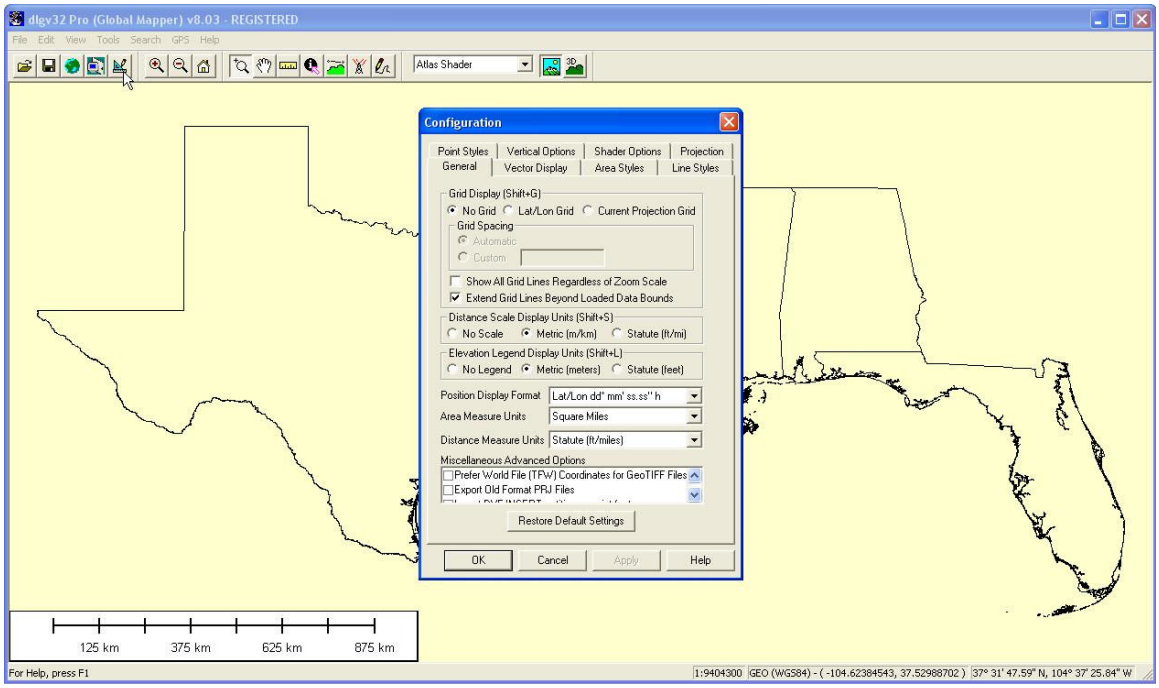
You can add more layers to the map by using the “Open” button in the top left.

Once you have loaded some datasets, you can unload them one at a time (as well as other functions) by clicking the “Open Control Center” button.

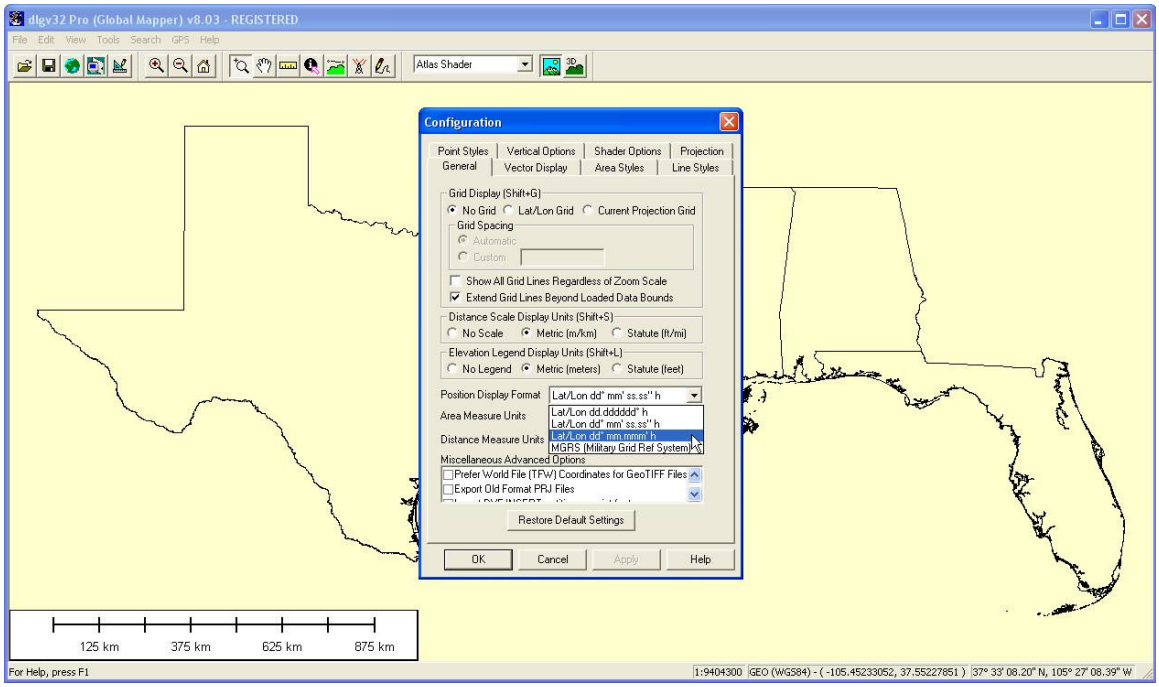


Default Settings

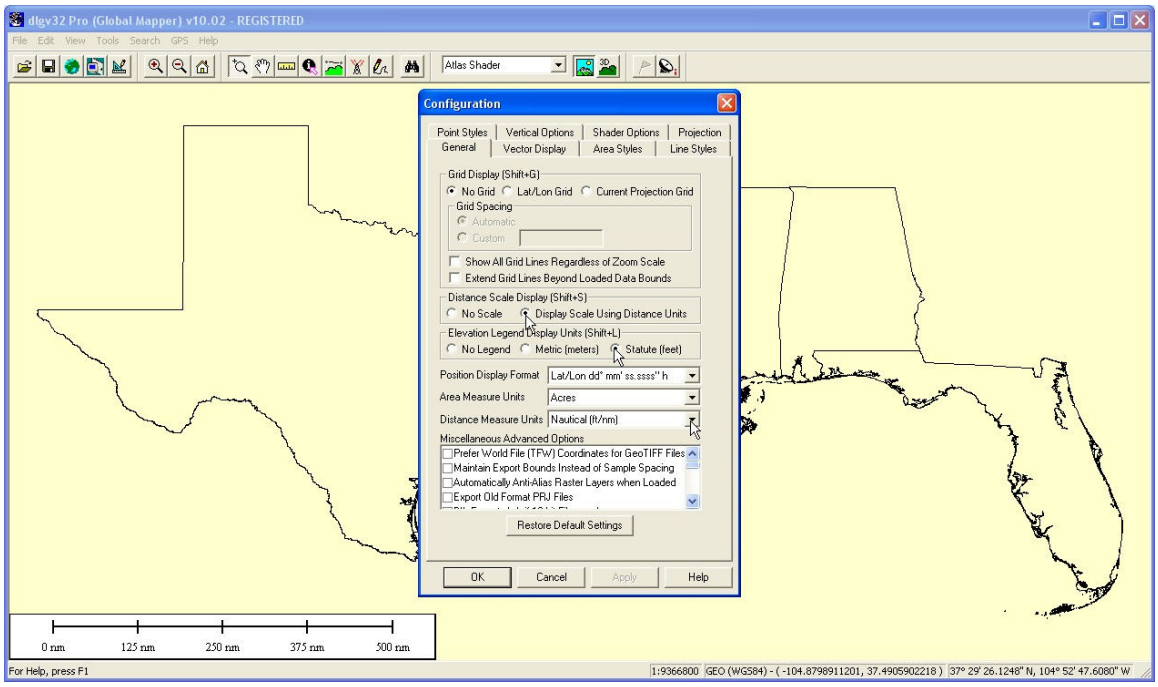
Open the “Configuration” dialog by pressing the button just to the right of the “Open Control Center” button.



Change the default “Position Display Format” to read in Deg and Min (Lat/Lon dd° mm.mmm’h) which is the common format for most gps units.

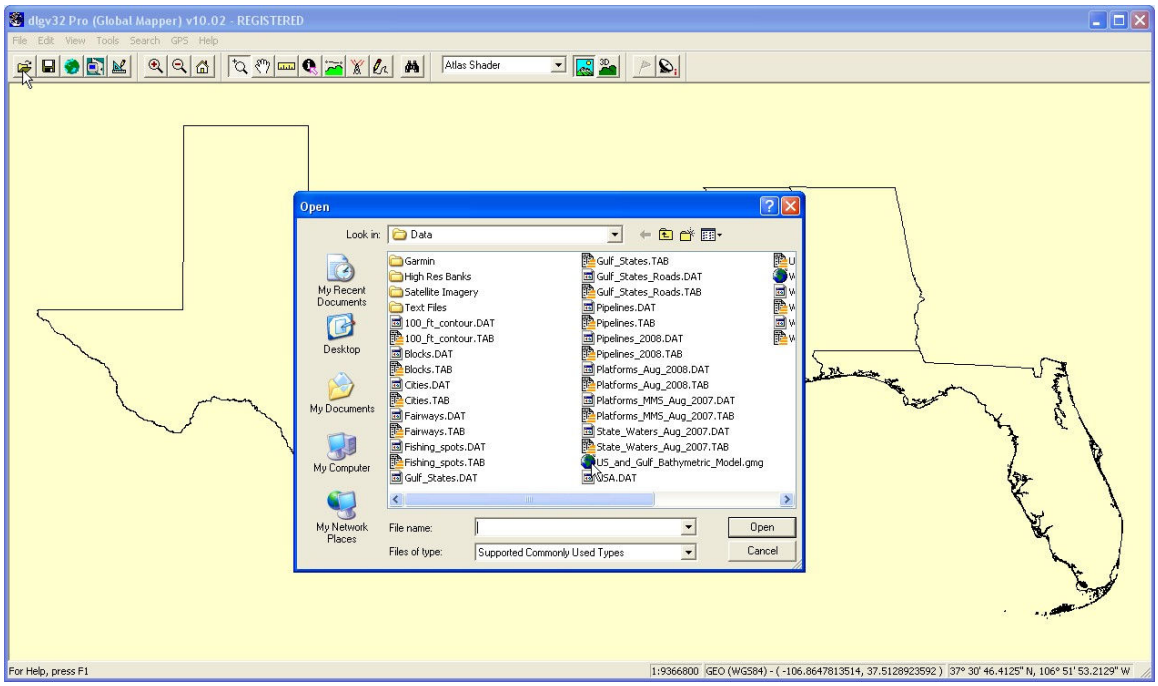


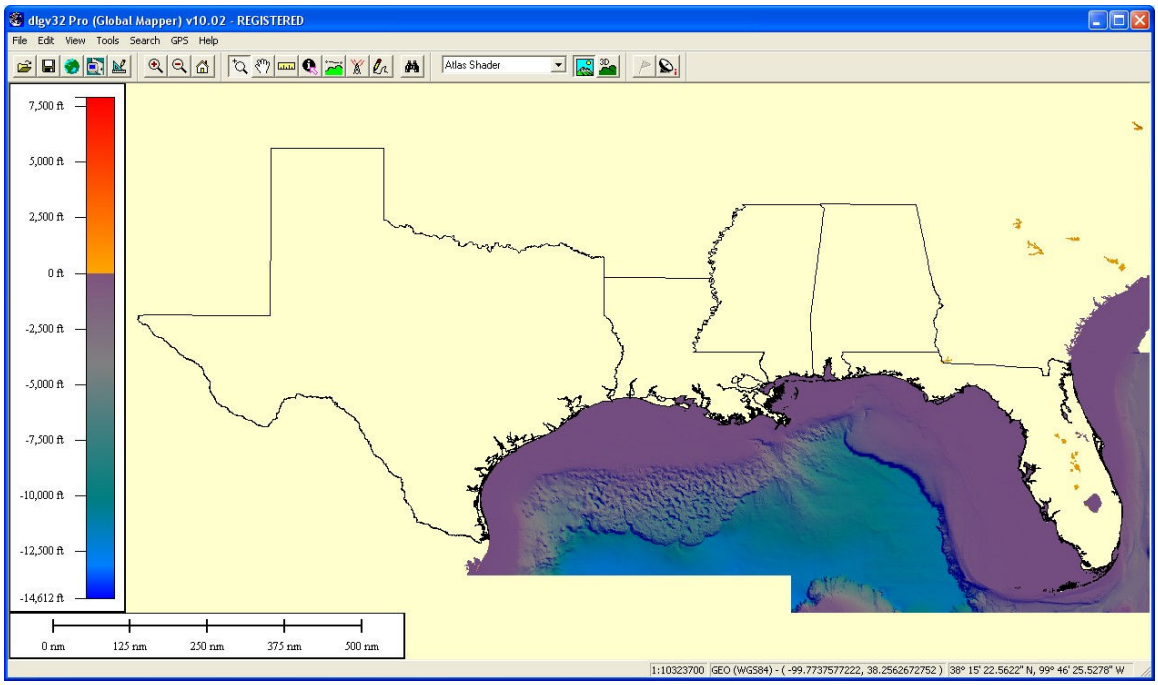
Also, you may want to force the units to be in feet and miles instead of metric units.



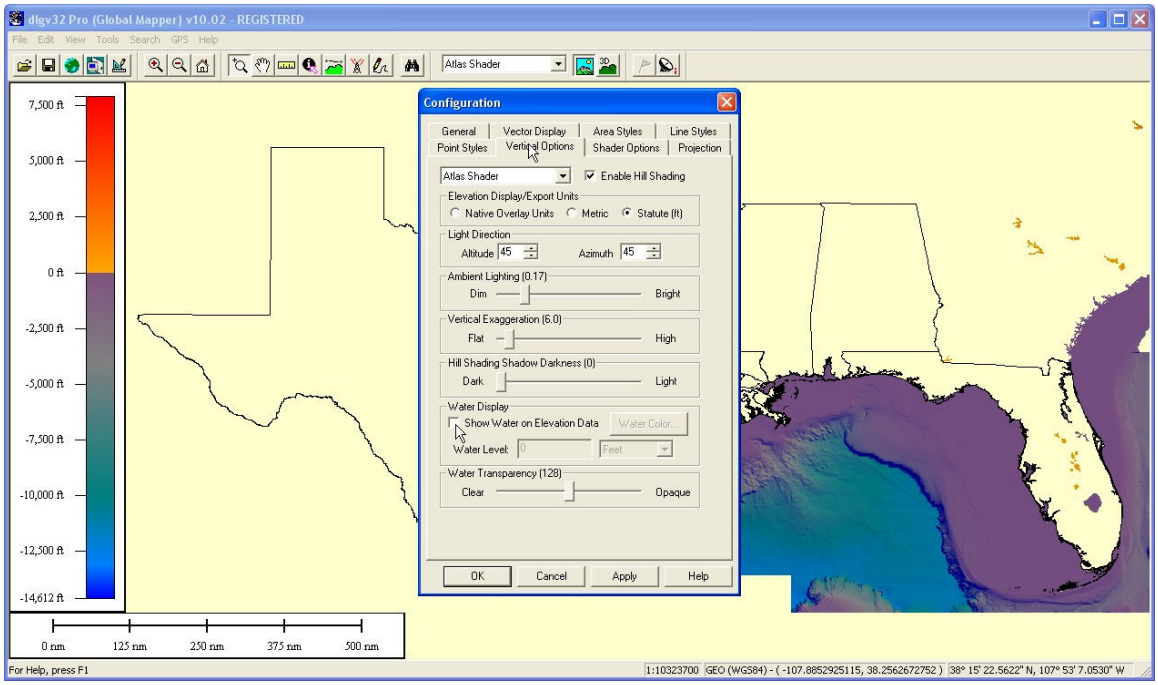
Digital Elevation Model (Bathymetric Data)

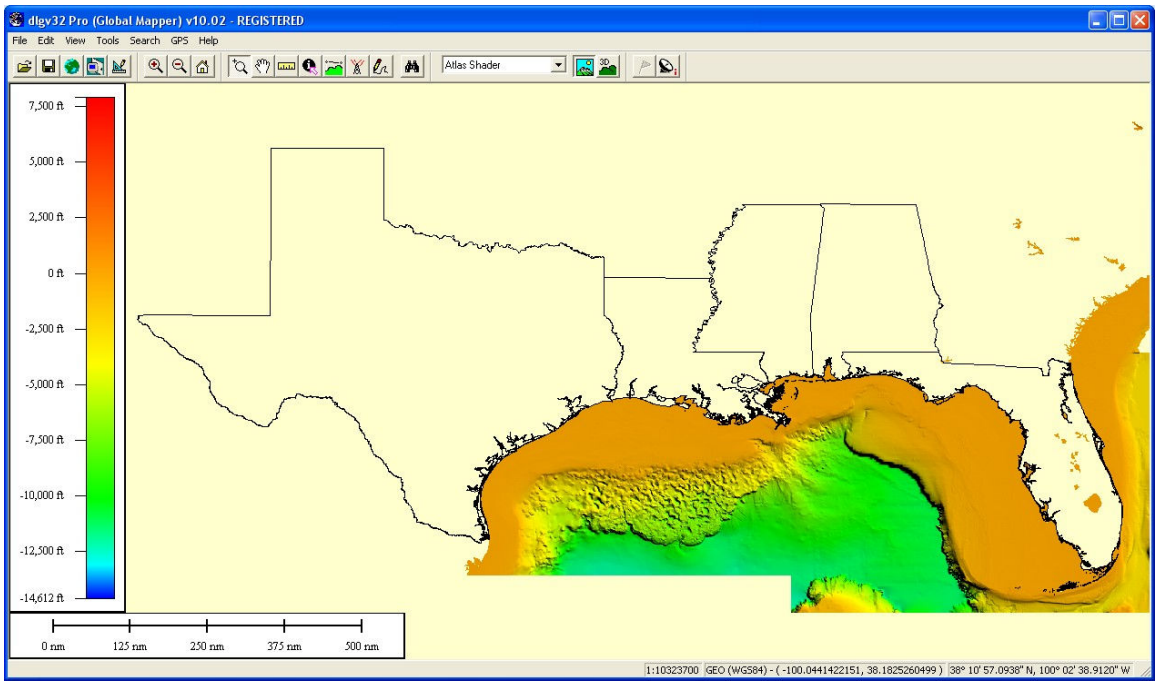
Open (or load) the Global Mapper Grid file named "US_and_Gulf_Bathymetric_Model.gmg".





Go to the "Vertical Options" tab and turn off "Show Water on Elevation Data" by unchecking the box. This will allow the shader to be seen in its intended color.

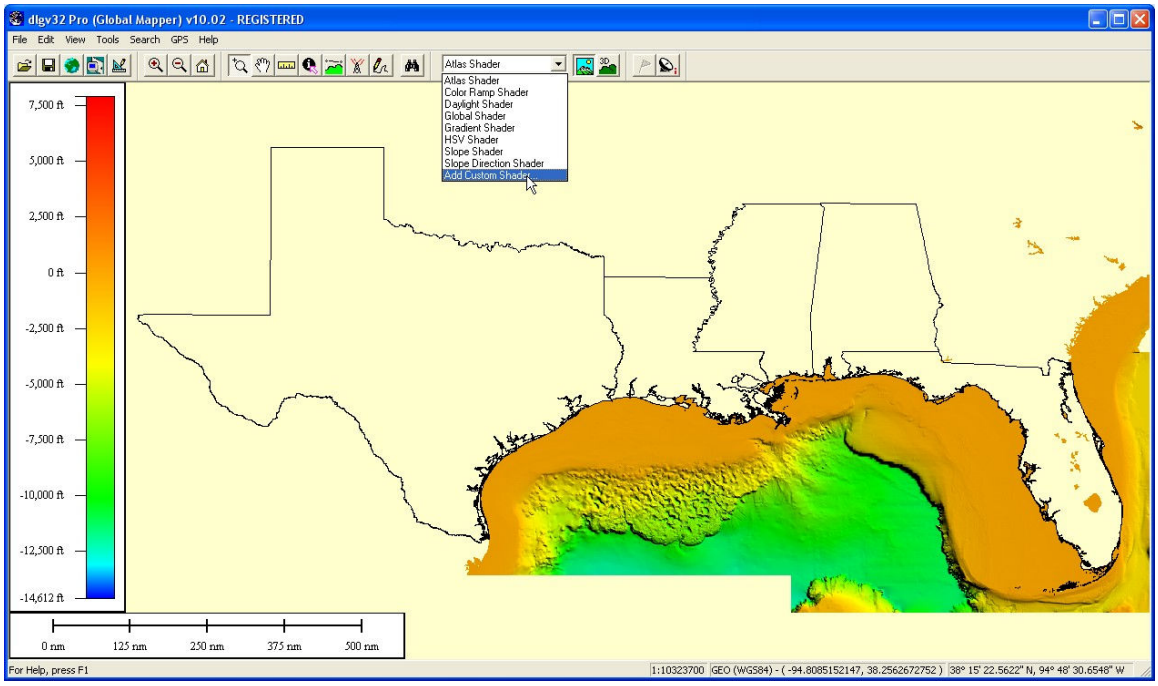




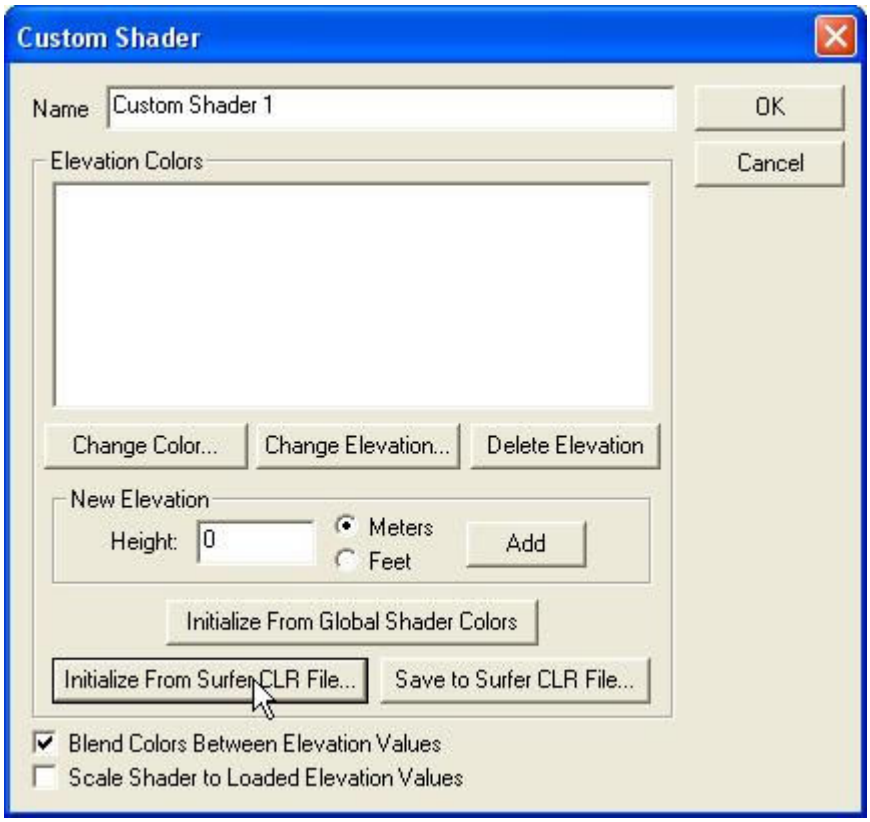
There are other settings available in this dialogue box that allow further customization.

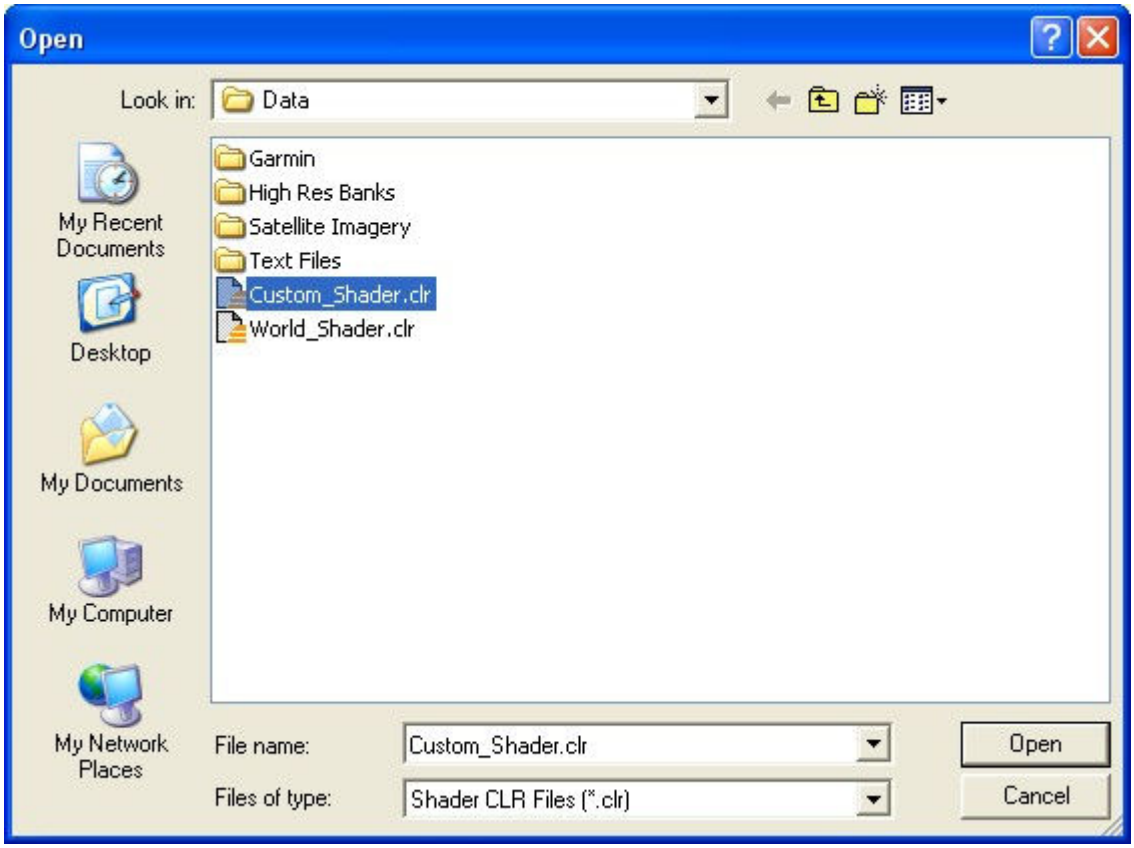
Relief Shading/Bathymetry Display

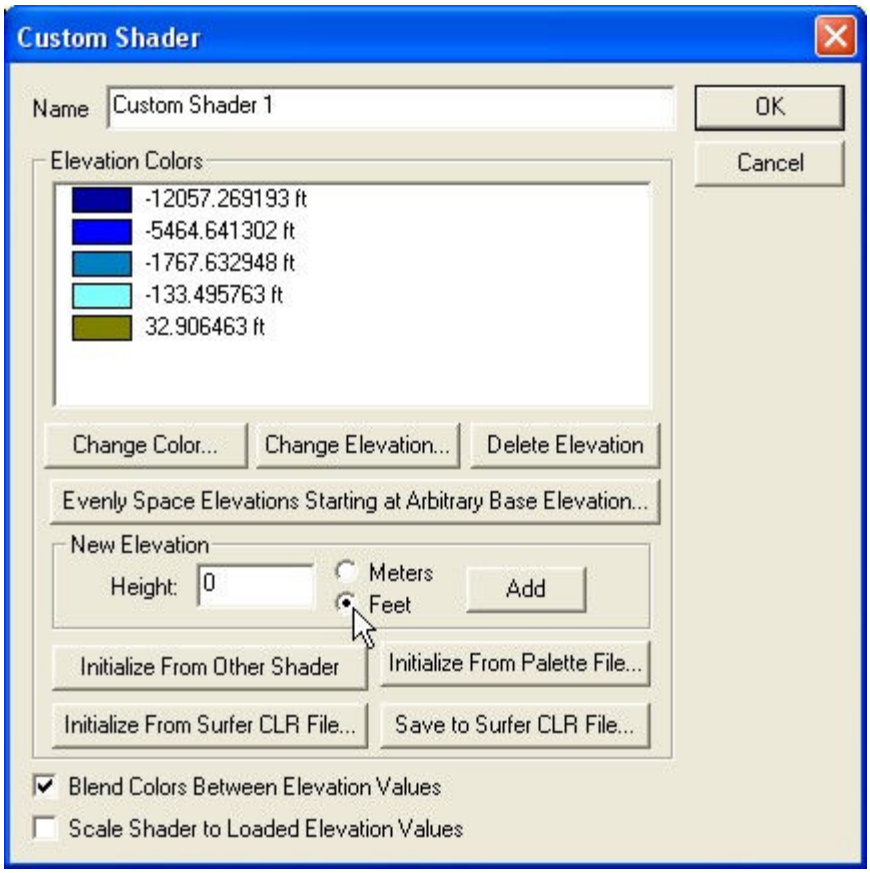
The default display shader type is the "Atlas Shader". A custom shader has been supplied that better suits this type of data. Choose "Add Custom Shader" in the pull down list.



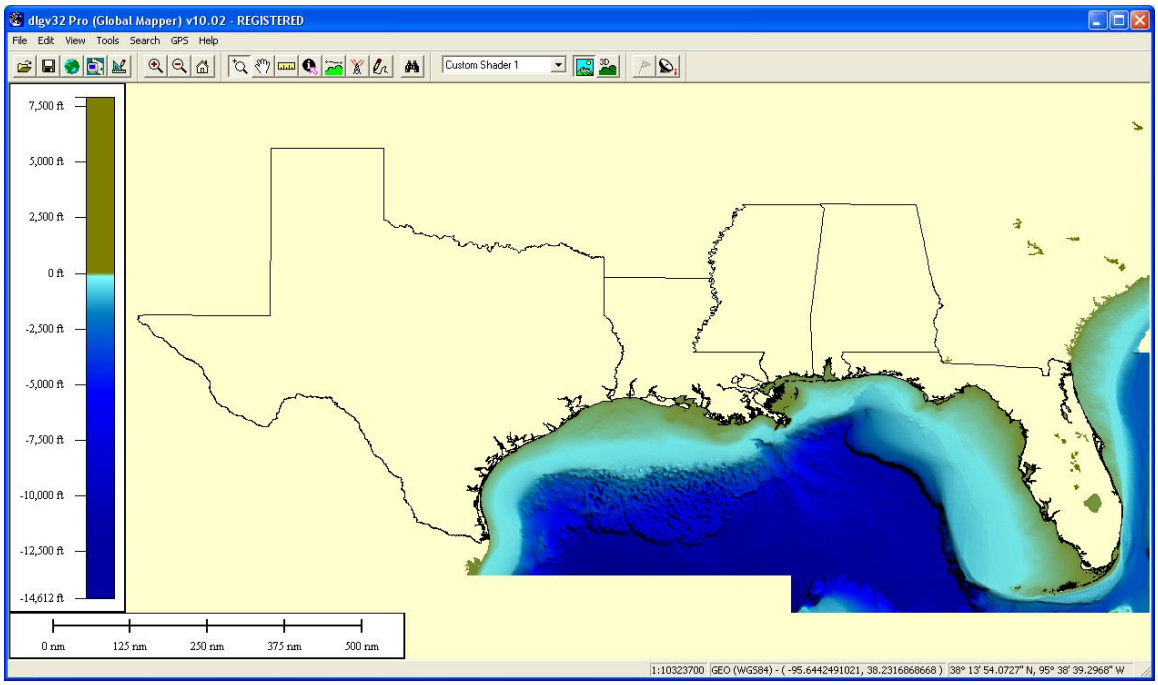
Then choose “Initialize From Surfer CLR File”. The file “custom_shader.clr” is in the “Data” folder. Set the units to “Feet” rather than meters and select “Ok”. This custom shader will become part of the program and need not be performed again.




Open
Look in:
Data
Garmin
High Res Banks
Satellite Imagery
Text Files
Custom_Shader.clr
World_Shader.clr
My Recent Documents
Desktop
My Documents
My Computer
My Network Places
File name:
Custom_Shader.clr
Files of type:
Shader CLR Files (*.clr)
Open
Cancel

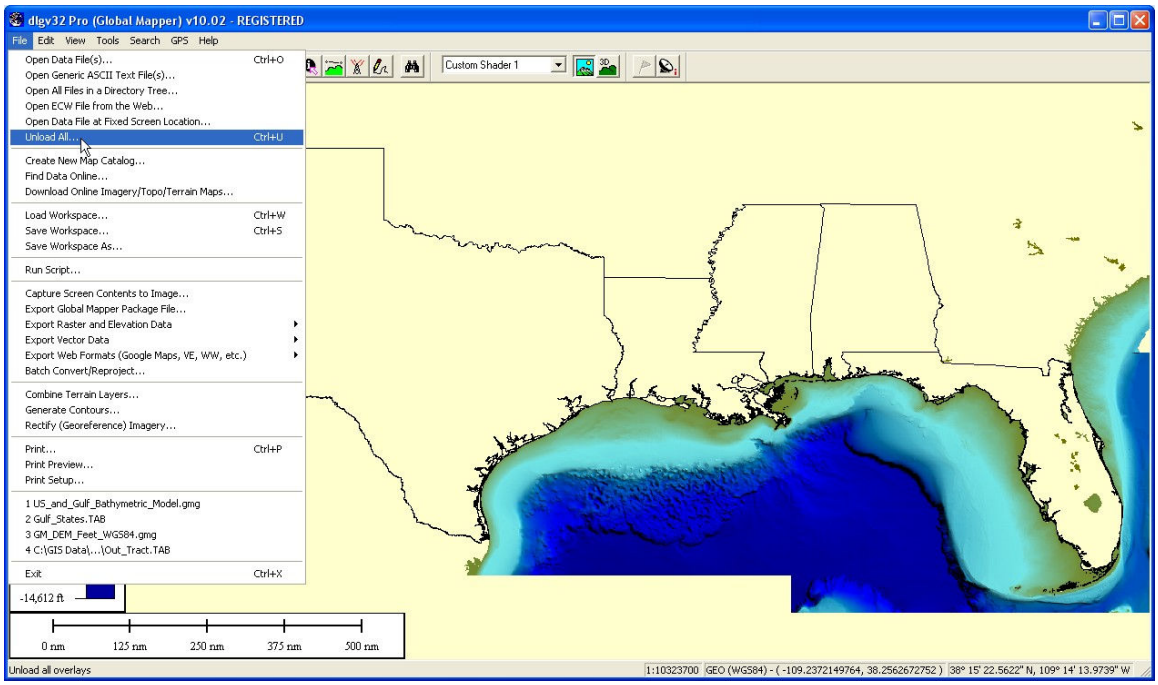


The window now displays the new color scheme. You can switch shader types at any time. The window also displays location information at the bottom right of the screen in both decimal degrees and degrees and minutes. Additionally, the depth is displayed at the lower left side of the screen.

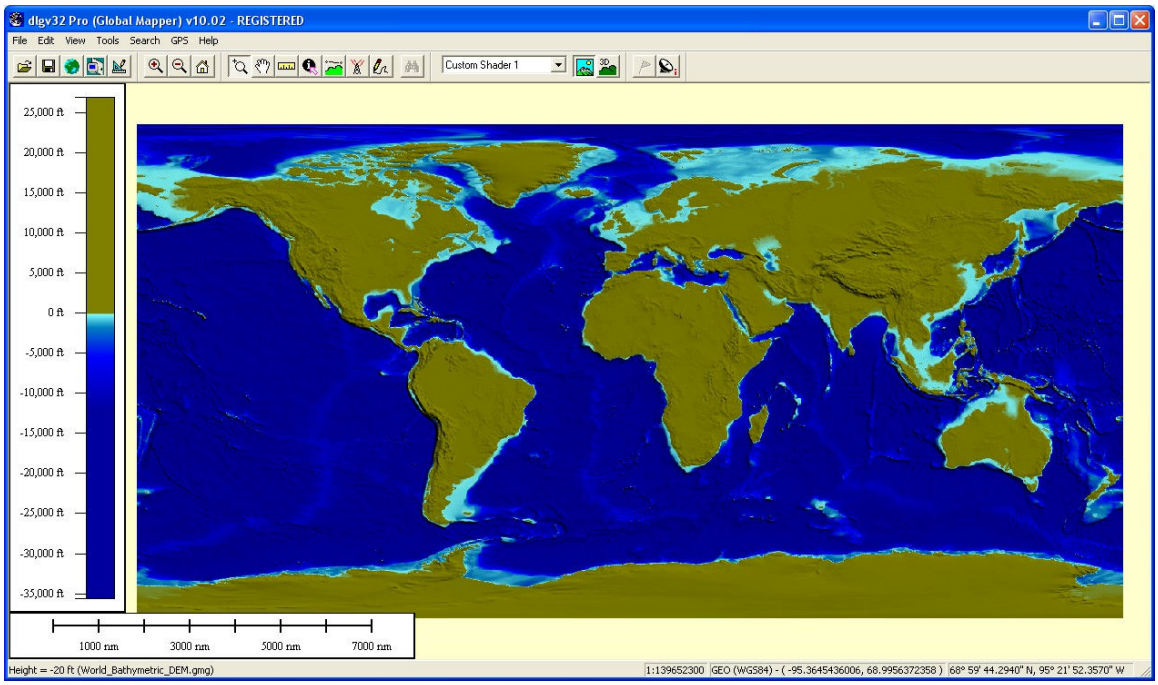


World Bathymetric Model

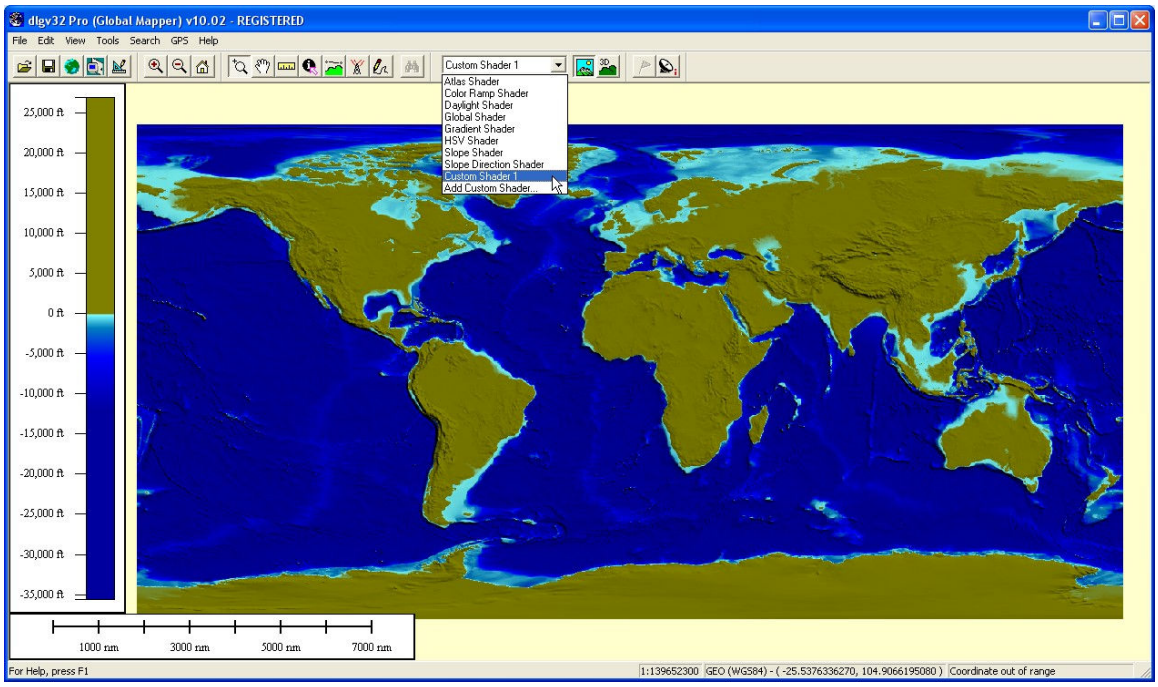
Begin by Unloading all data.



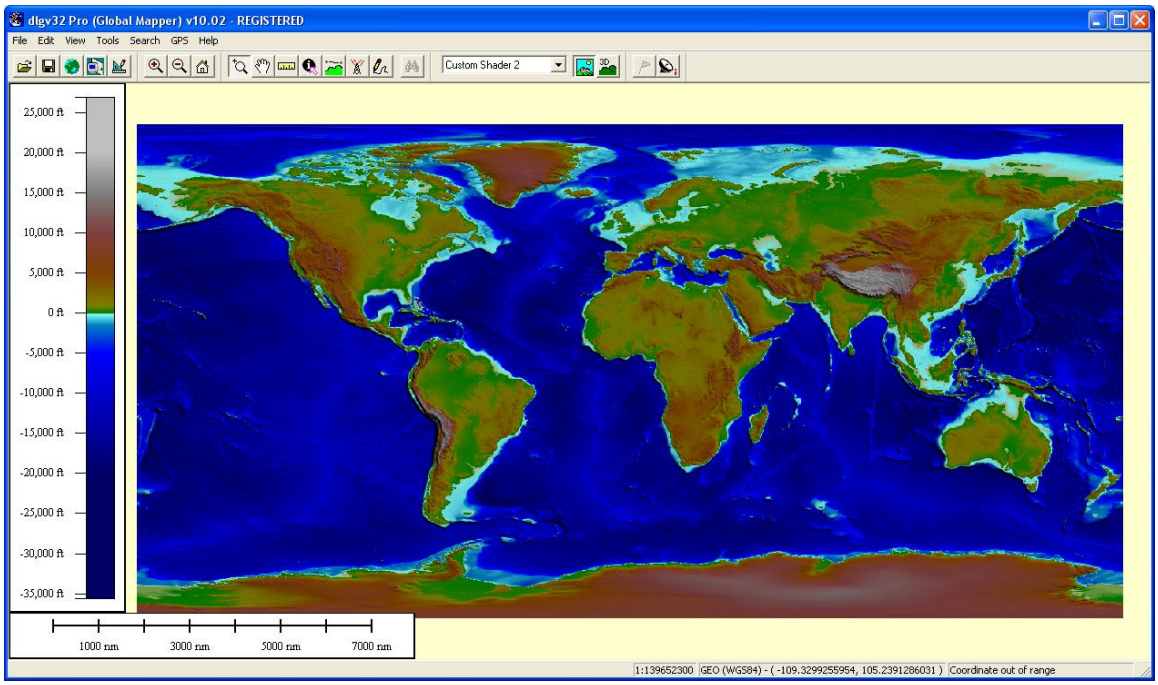
Next, open the World_Batheymetric_DEM.gmg. You will notice that the color scheme for the US bathymetric model is not suitable for the world dataset.



Create another Custom Shader using the same process.



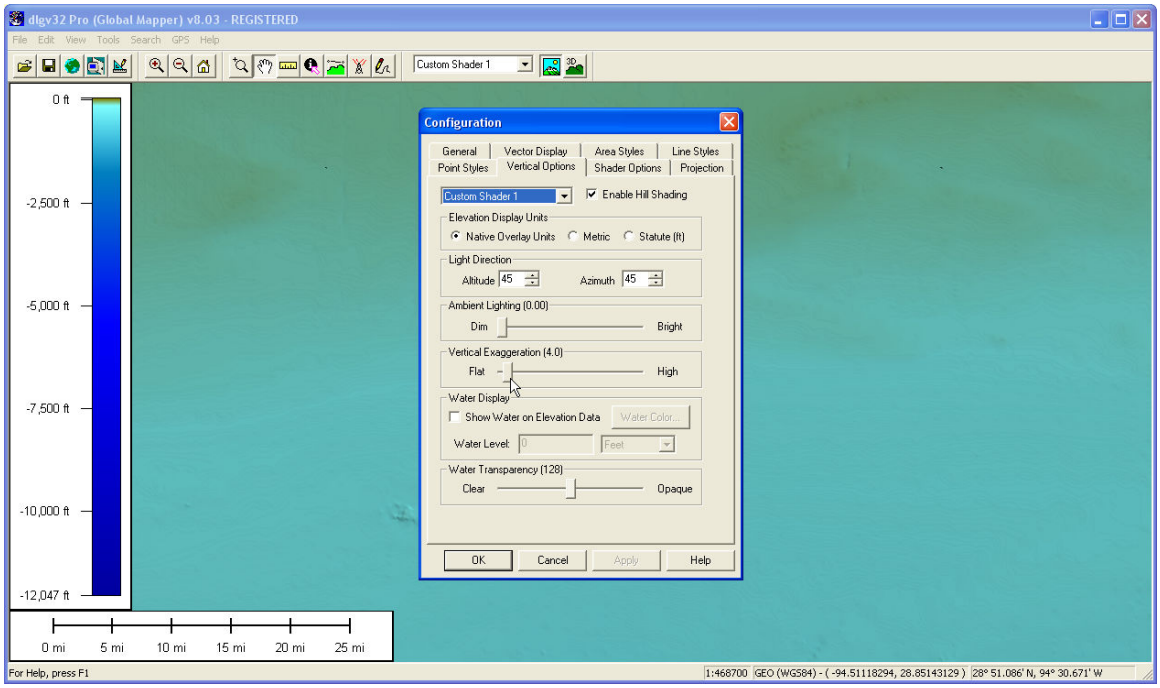
Again, use the "Initialize from Surfer CLR File" option.
This time use the "World_Shader.clr" or "custom_shader_2". Remember to set the units to feet instead of meters. This process will only have to be done once and you can switch between the shaders you have created at any time from the pull down menu at the top.



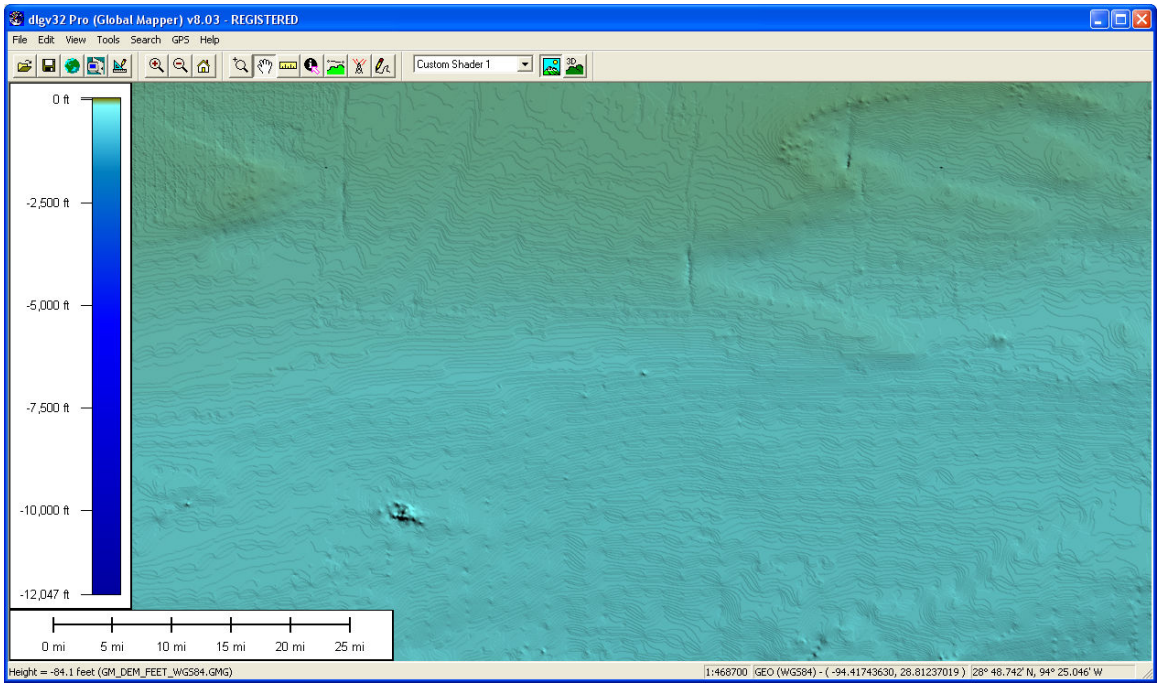
The World Bathymetric dataset also includes land elevations. Positive numbers indicate feet above sea level and negative numbers indicate feet below sea level. Notice the values change in the lower left side of the window as you move the cursor.

Vertical Exaggeration

Another important feature is the vertical exaggeration slider. Once again, in the "Configuration" button, select the "Vertical Options" and look for the "Vertical Exaggeration" slide bar. This is a view of a shallow area without much exaggeration.



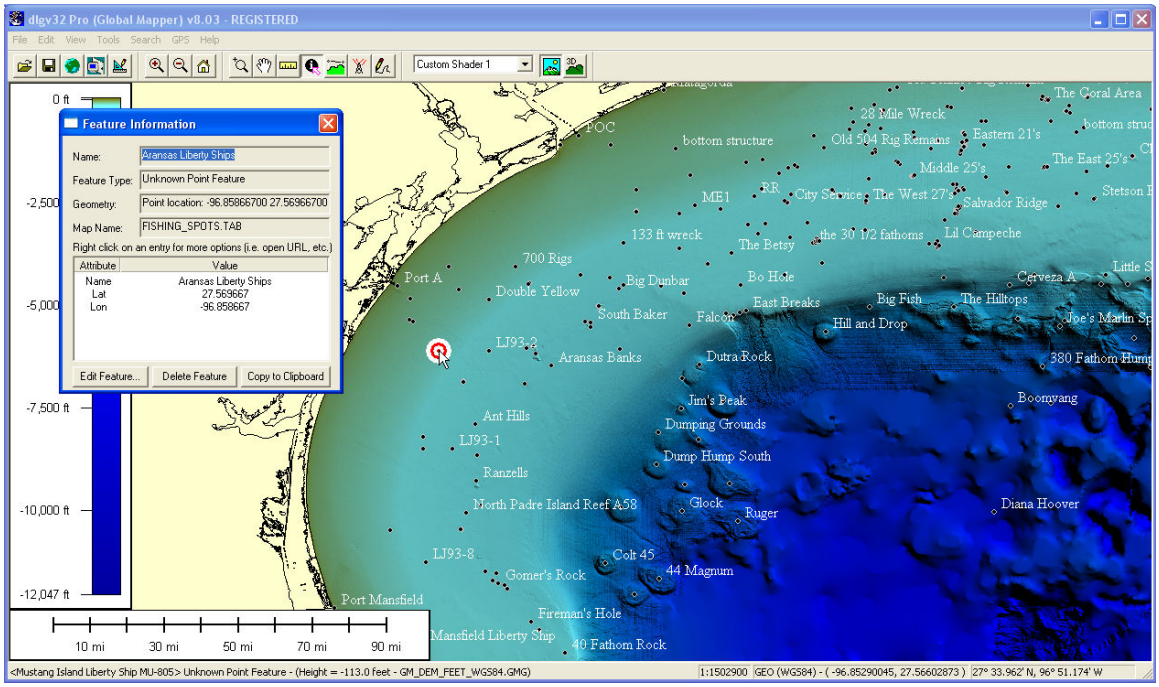
After more exaggeration is applied, subtle bottom changes become more prominent for the same area. When looking at deeper water, you may want less vertical exaggeration.



Object Info

Using the Info button:

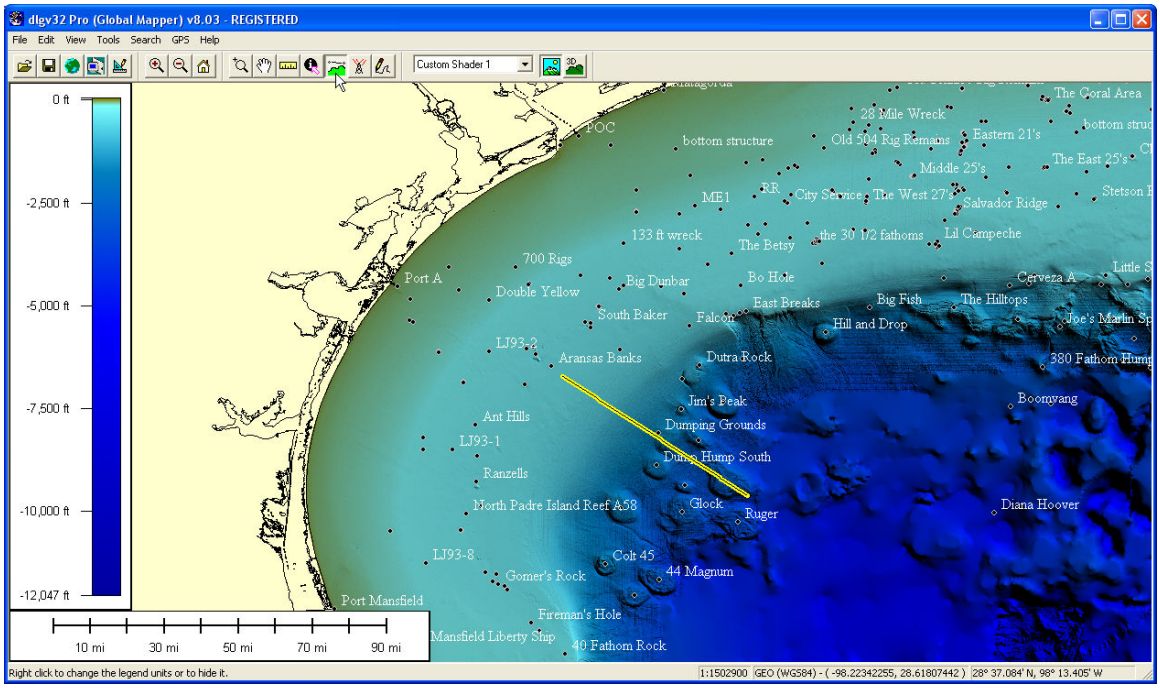
Select a feature such as a point, road, state, etc. to display its information.

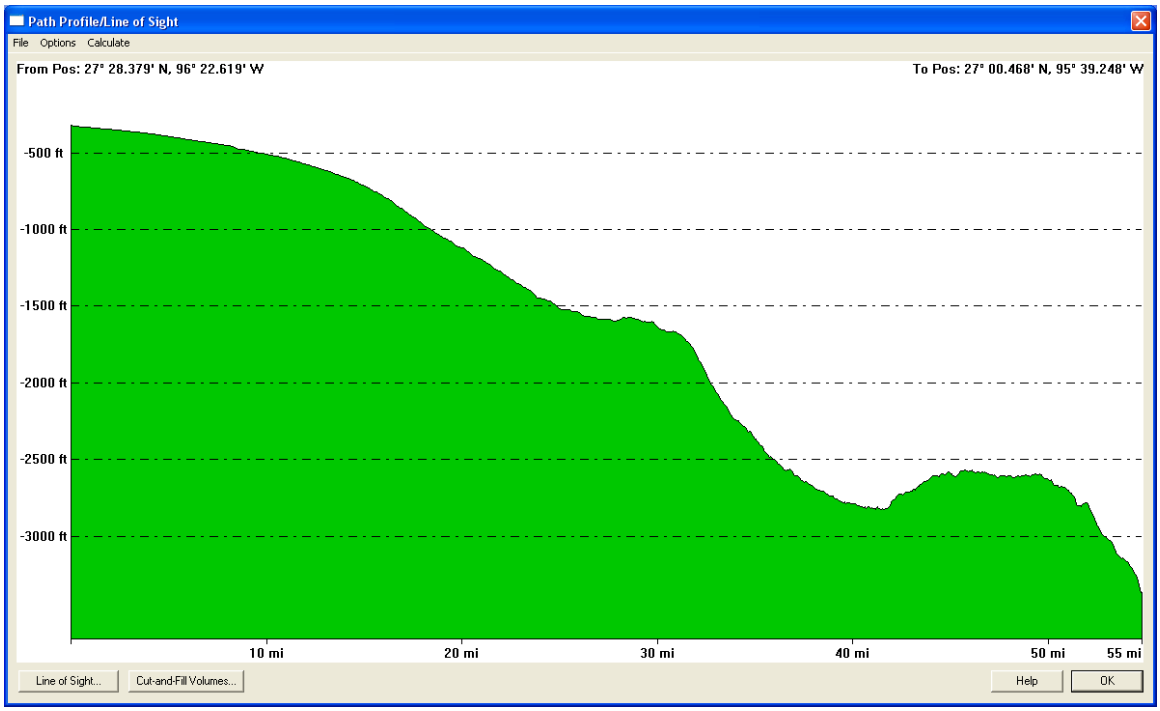


Cross Section Tool

To view a profile of the depth changes, use the cross section tool. This is useful when looking for abrupt changes that could affect current flow and therefore produce an upwelling.

Left click to start the line and right click to end it.

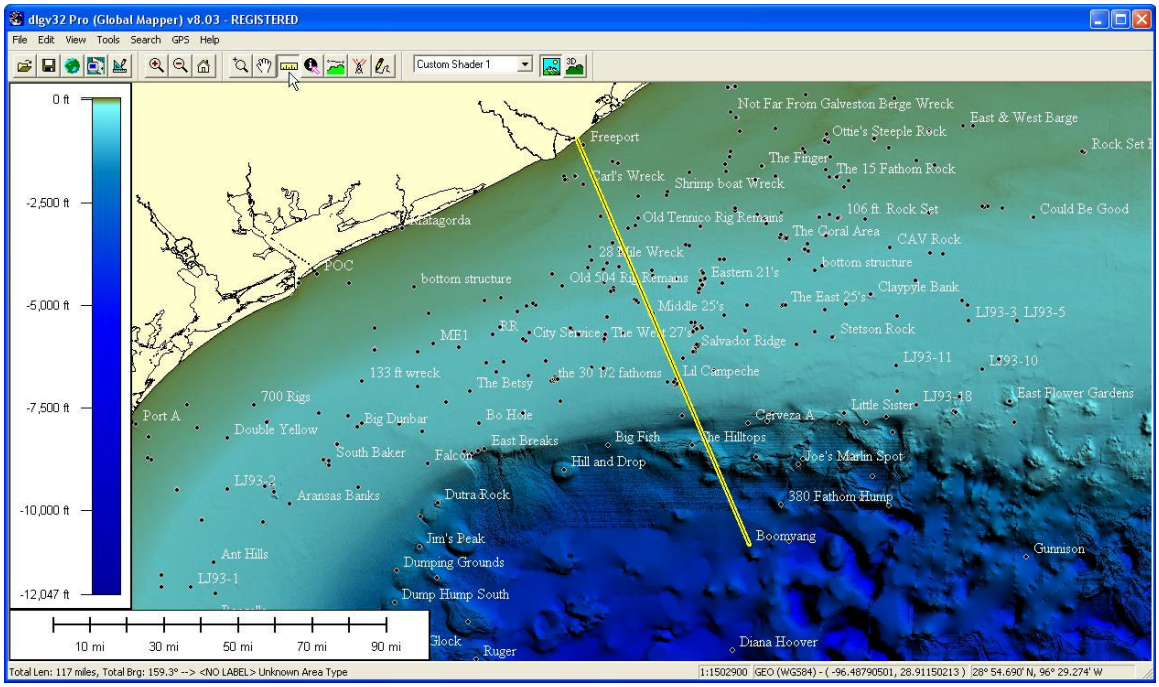




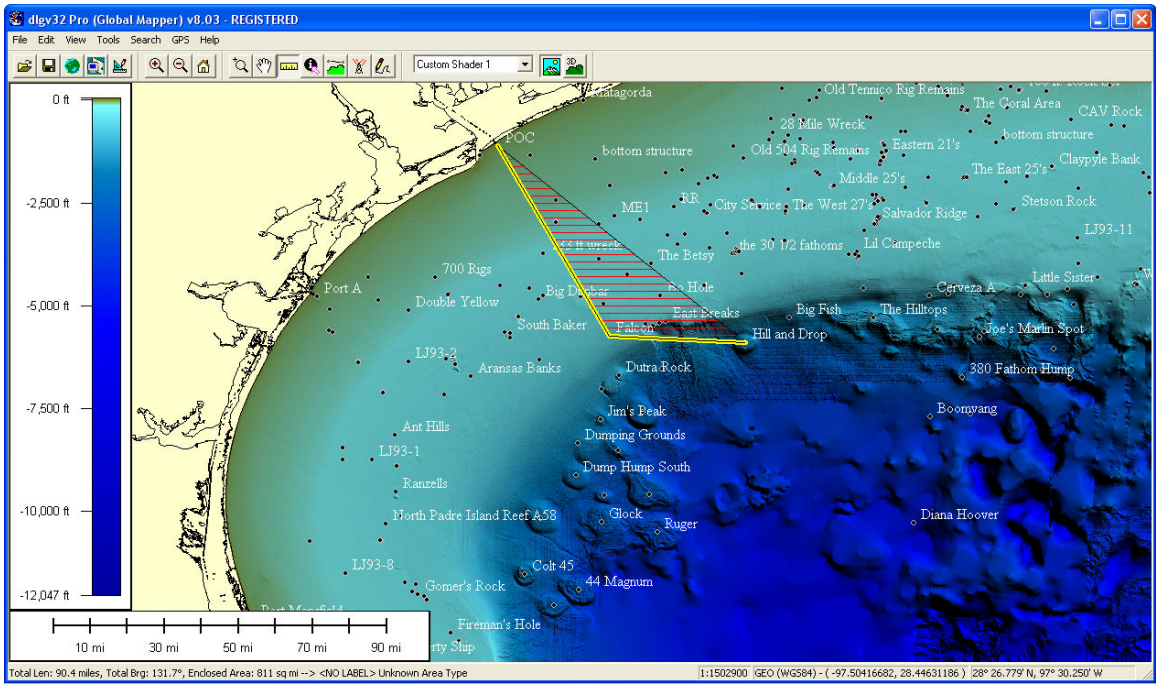
Measurement

Use the measurement tool to get distance and direction (displayed at bottom left).

Left click to start measuring and right click and select “Stop Measuring” to quit. There are also other options after you right click.

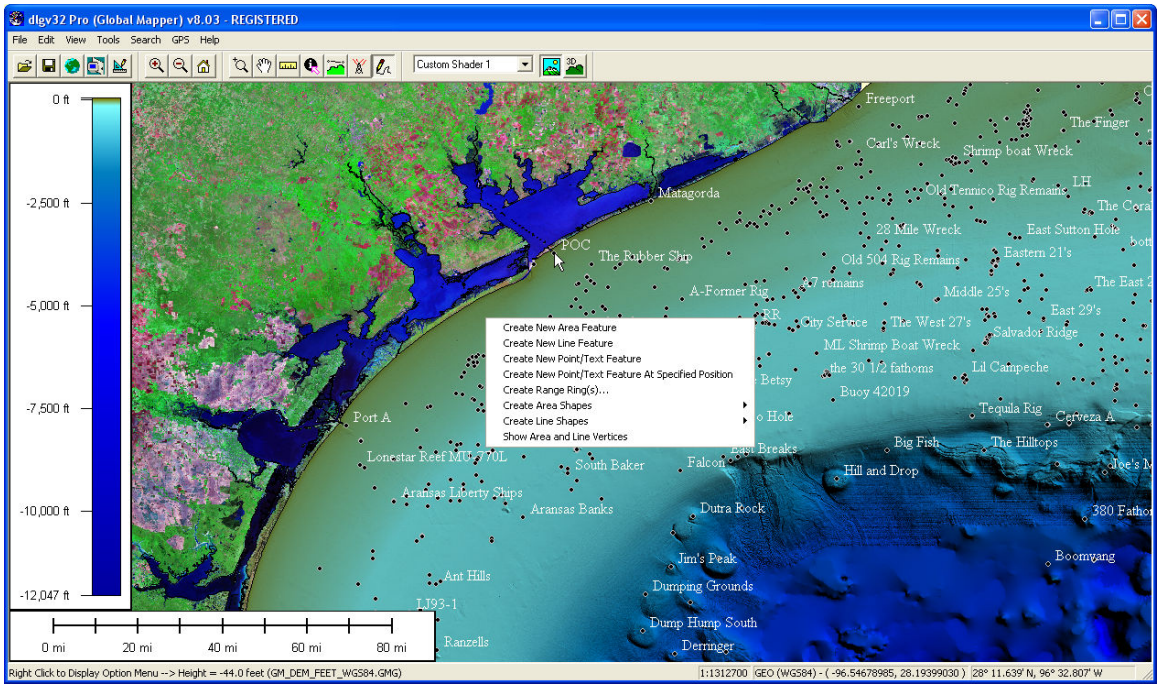


You can also do multiple segments and obtain area information or see the most direct route back to your point of origin.

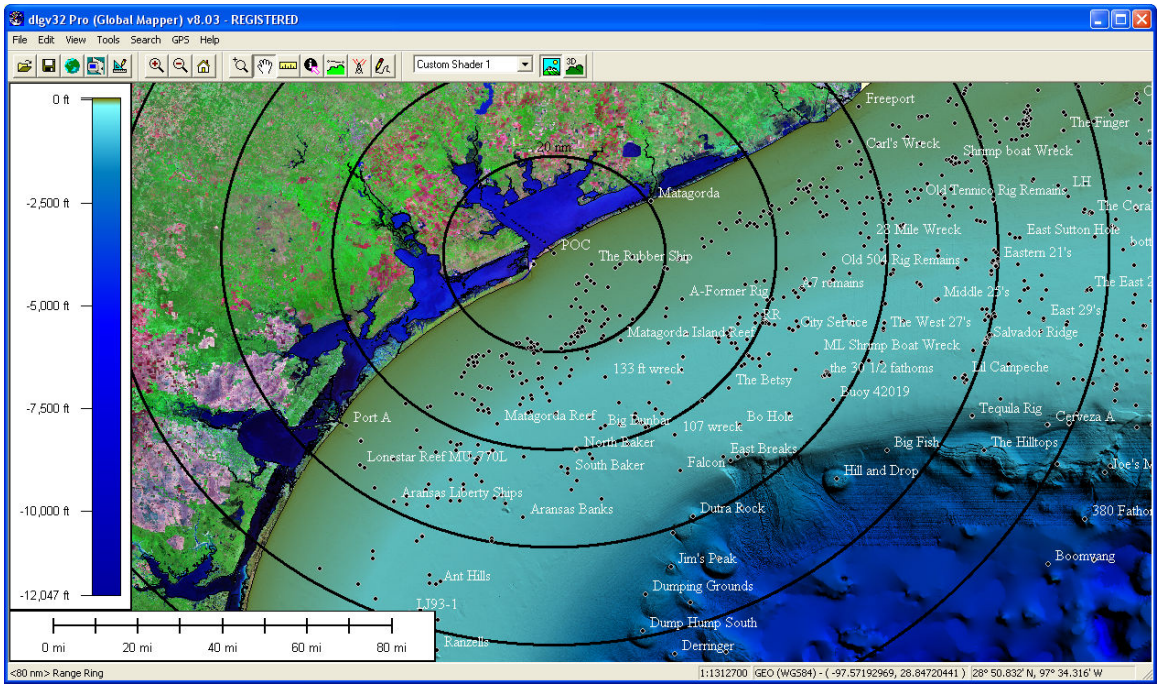


Digitizer Tool

Use this tool to draw a variety of objects such as points, line, areas, etc. Anywhere on the map, right click and select an object and begin drawing.



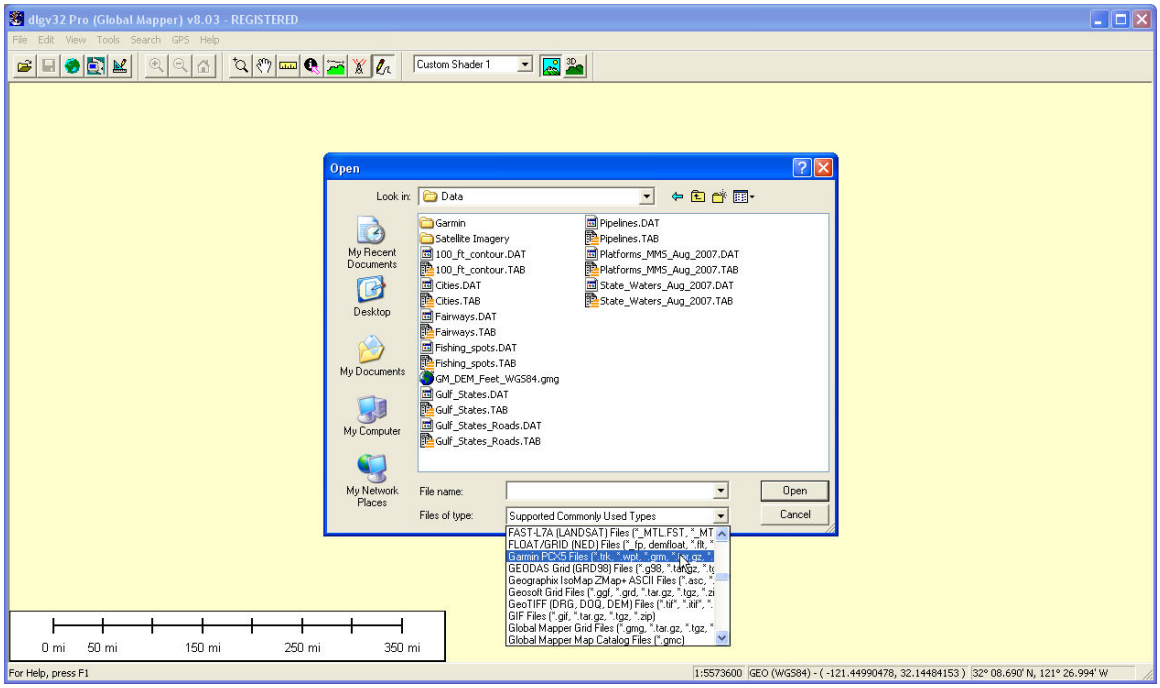
One particularly useful drawing object is the "Range Ring" tool. It can be used for calculating which areas can be fished based on a boat's range. Below is a range ring for Port O'Connor at 20 nautical mile increments.



Using the limited version of Global Mapper does not allow saving these features, however, redrawing them is relatively simple and quick.

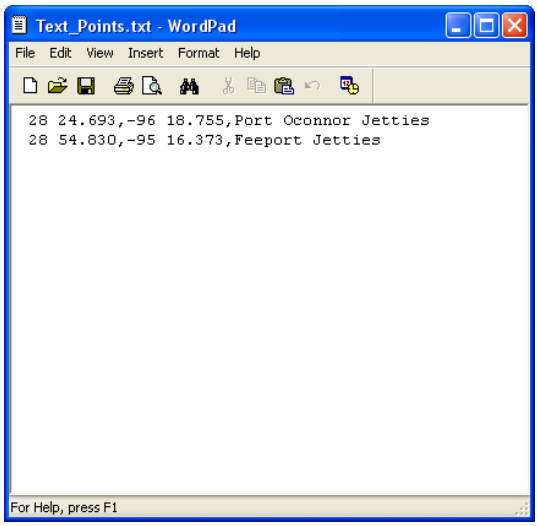
GPS

There is a sample "Fishing_Spots" locations file. Other locations can be hand entered into a gps by noting the lat/lon positions manually. Alternatively, waypoints downloaded from a gps into MapSource or other gps software can be loaded into Global Mapper by saving the waypoints as a "GPX" file format. Garmin and Lowrance are directly supported and Magellan may be used through the gpx format.



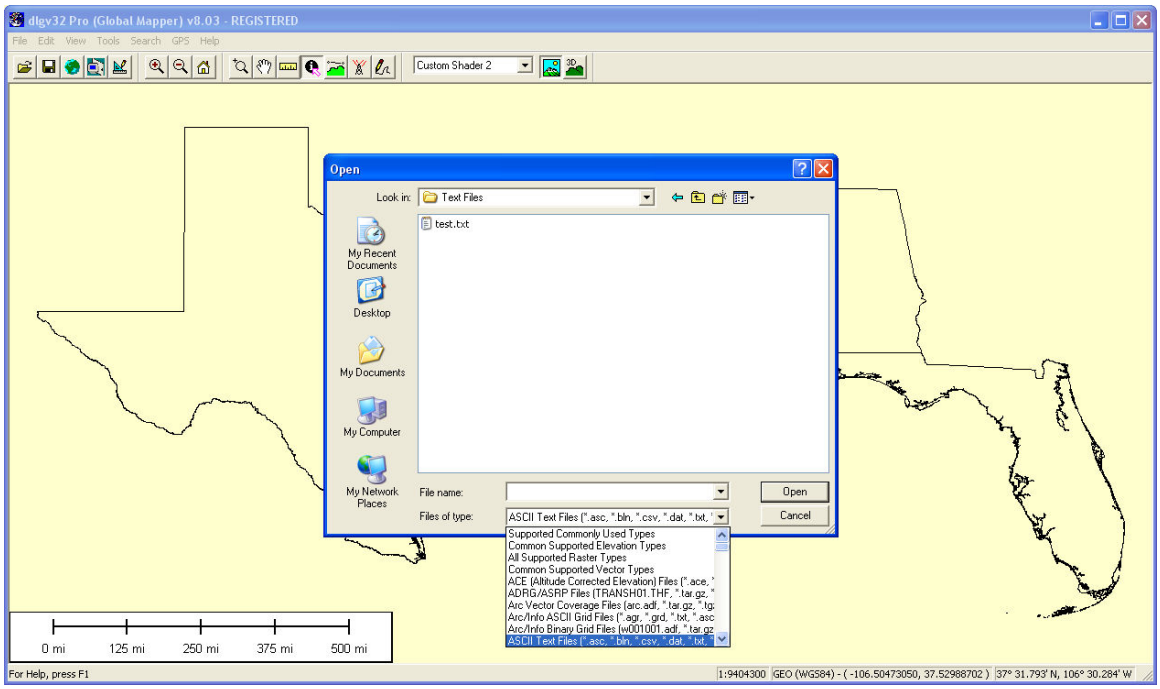
User Points

You can add your own points through a text list separated by commas. This list has been started for you with the Port O'Connor Jetties and Freeport Jetties added:

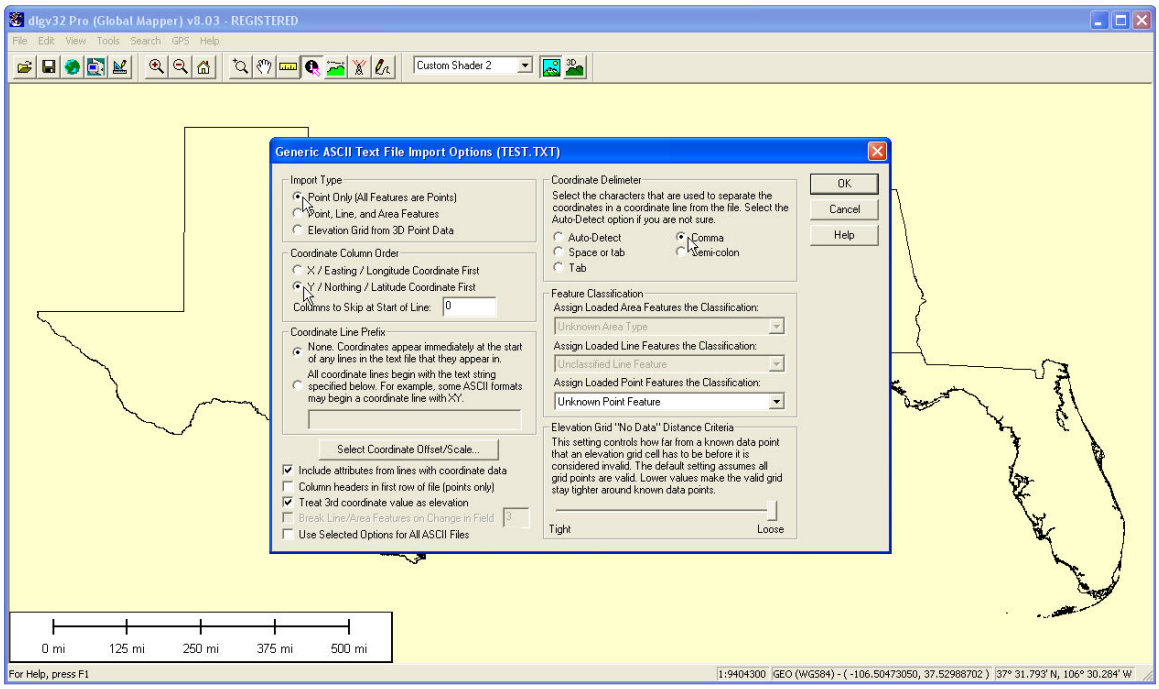


The text file is in the "Text Files" folder and can be edited with programs like "Word Pad" or "Notepad". The file only needs to be a plain text file. It is important that you remember the " – " negative sign in front of the longitude coordinate or your point will fall in the eastern hemisphere instead of the western. This list may be an ongoing list and has no size limitation. Each time you open it in Global Mapper, it will include any points you have added. You can even share these points with friends by emailing the text file to them.

When opening this list, choose “ASCII text files” in the “Files of Type” pull down menu in the “Open” dialogue.



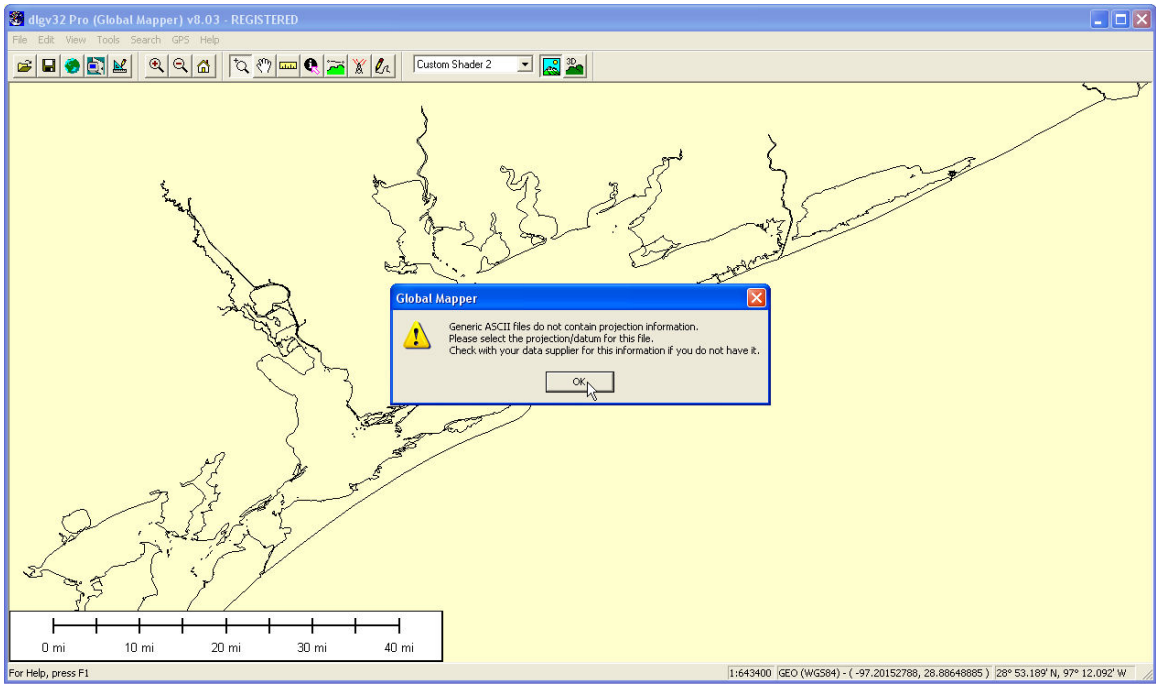
Use the following settings to ensure the points are correctly drawn:



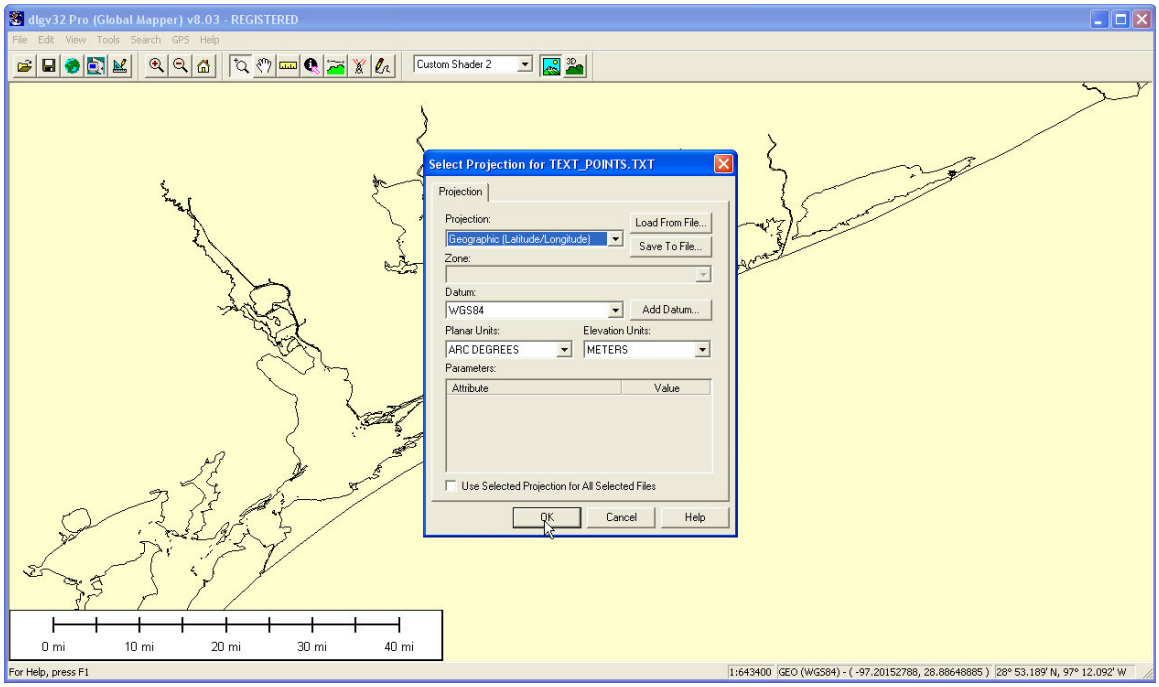
The three options should be:
“Import Type” set to “Point Only”

“Coordinate Column Order” set to “Y or Lat first”
“Coordinate Delimiter” set to “Comma”

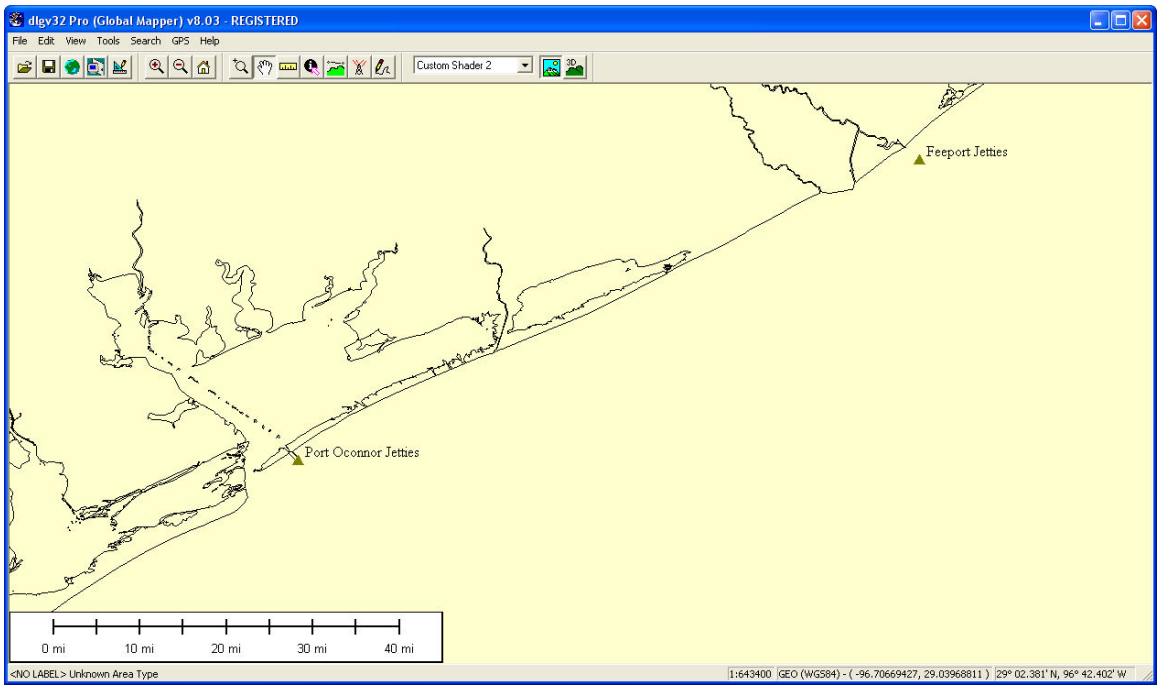
Since the program does not know what coordinate system your points are in, you will see the below warning message (select “OK”).



The best option to assume is Geographic(Lat/Lon) and WGS84. All other settings are not needed.



The points appear in the map window. If you add points to this text list, you must re-load the file so it can draw the new points.



Global Mapper Limitations

With the limited version of Global Mapper you will be restricted to opening 4 files at any given time. However, there are many datasets to choose from and many possible combinations. Other limitations include exporting data and some 3D characteristics. The software will notify you when a given feature is not available in the limited version. Saving new map data is also limited, although using the text file described above allows you to add and save new map points through the text file.

Should you decide you need the full unrestricted version of the Global Mapper software, it may be purchased for approximately $349. Most users will not need the full version, although there are certainly advantages and if you find yourself really using the maps frequently, you'll probably benefit from the full version.

It may be obtained at:

www.kivaconsulting.com/global_mapper.htm

Appendix A

World Ocean Place Names

This dataset includes undersea place names for features such as seamounts, ridges and other features.