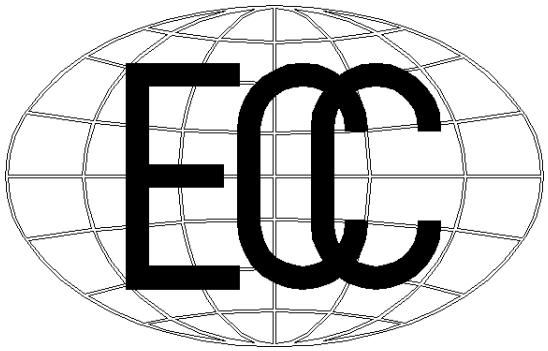
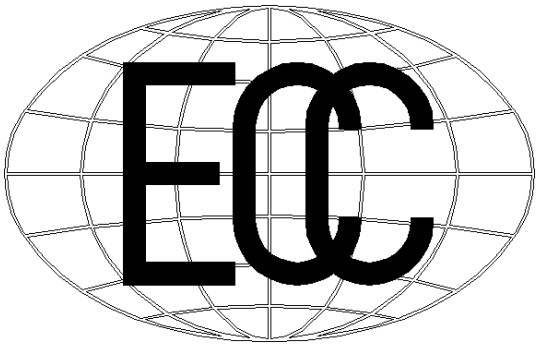
# REFERENCE MANUAL FOR

# ECC-GLOBE

# V. 2.4



# REFERENCE MANUAL FOR
# ECC-GLOBE
# GLOBE V. 2.4






Electronic Charts Company, Inc.
Fishermen's Commerce Building
4039 21st Avenue West #302
Seattle, WA 98199
Phone: 206-282-4990
FAX: 206-282-7088
In US: 800-488-3459
email: seanav@mindspring.com
Web Site: www.electroniccharts.com

## PRUDENT MARINER NOTICE

**THE PRUDENT MARINER WILL NEVER RELY SOLELY UPON ANY SINGLE AID TO NAVIGATION, PARTICULARILY UPON FLOATING AIDS.**

**THIS SYSTEM IS NOT INTENDED TO BE YOUR SOLE AID TO NAVIGATION, NOR IS IT INTENDED TO REPLACE THE USE OF STANDARD PAPER CHARTS.**

## SOFTWARE SECURITY KEY

**IMPORTANT Notice Regarding your Software Protection Key:**

**Your software protection key (dongle) is your key to GLOBE. The key is coded for your individual system. Without that key GLOBE will not run. So, take care of that key as you would any valuable possession. Insure the system for full value. If you lose the software protection key, you will need to purchase a new system. For example, if you lose your computer, the dealer will not give you a new one. The principle is the same.**

# TABLE OF CONTENTS

## INTRODUCTION

GLOBE is an advanced plotting and navigation software application designed for the commercial marine industry. Nearly all of the features found in GLOBE have been included because we have listened to the people who use the system. We will continue to build on this platform during the coming years in order to create the most effective plotting program available to the commercial marine industry.

GLOBE is a Windows 98SE, 2000 application allowing for multiple chart windows and multiple serial input devices. The flexibility of the Windows platform permits many options not available in earlier software—seamless charts, multiple chart viewing windows, ARPA radar target overlay and seabed classification software interfacing are all available now.

New features in GLOBE include a completely rebuilt Route System. One Route button will access all Route features. See the Routes section. An autopilot interface is also being added. Call ECC for details.

Several new features are add-on modules. These new additions are explained in their own section: “Add-On Modules.” They include a raster chart reader that accepts BSB/NOAA charts and NDI Canadian charts. New rookery data is available for Alaska. An integrated Tide and Current Module is available. The 3-D module is complete and the new Terrain Builder Module is also ready. See your marine electronics dealer or call ECC for pricing.

The Help file has been updated and revised. Click on “Help” and select “Index” to launch the Help File. When the cursor turns into a hand, click on the item to move to the selected help text. It is built like an internet browser so that you will be able to move from topic to topic easily. Use this file to answer most GLOBE questions quickly.

## THE BASICS

### Starting Up

Turn on the computer and wait for Windows to load. Start GLOBE by double-clicking the GLOBE icon if it is on the opened Windows desktop. You can also launch GLOBE by clicking the “Start” button, then moving to the “Programs” part of the menu. Click on “Electronic Charts Company”. Then select “GLOBE” from the menu.

### Multiple Chart Windows

Although many chart windows can be open at the same time, it is strongly advised that no more than four windows be open at the same time. Serious degradation of

performance can occur if more than four chart views are open at once. A warning message will appear that reads:

> **There are currently more than four chart windows open. This many chart windows will seriously degrade performance. It is recommended that any unneeded chart windows be closed.**
>
> **Selecting Tile Vertical or Tile Horizontal from the Windows menu will display all open chart windows.**

Clicking on the X in the upper right hand corner of the ***chart*** window will close that chart window. Please note that there is a similar button in the far upper right corner of the screen that will close the GLOBE program. Do not press this button until you are ready to exit the software.

### Easy Chart Navigation

Chart scale selection is mainly done by zooming in and out rather than by individual chart selection. All of the chart information, including navigation and bathymetric data, is compiled in a single database. Zooming in brings up data of higher resolution and better scale when available. The **Page Up** key on the keyboard will zoom in and the **Page Down** key zooms back out. From the GLOBE tools select the magnifying glass. Clicking the left button on a standard 2 or 3-key trackball (or mouse) zooms in and clicking the right button zooms back out. To drag a zoom window click and hold down the left mouse key while moving the cursor. A zoom window will outline the zoom area.

To select a chart area defined by a NOAA chart number or bathymetric number, click on the word “File” in the top menu. Then click on “Chart List.” A list of available charts will appear in a dialog box. Scroll to the chart you want on the screen to see a preview. If the chart is available, select the chart for display.

Use the arrow button to pan the screen in any direction. After selecting the arrow button from the toolbar, move the cursor to a point on the screen and click the left mouse button. The screen will redraw with the cursor positioned at the center of the screen. The arrow keys on the keyboard also will pan the screen in the direction of the arrow.

All of the chart data that is on the hard drive can be accessed by these methods.

### Mouse/Trackball Keys

There are basically two pointing device options:

- Microsoft compatible mouse
- Microsoft compatible trackball—two key or three key

The right and left keys are the most used. The left mouse key is most often used to select an item from the toolbar or from a menu. The right mouse key is more often used to change characteristics, for example, to zoom out on a chart or to bring up menu options.

### Contours

All of the contour lines, from both navigation charts and bathymetric maps, are stored in the same database. That makes it easy to change contour units. Click on the "View" option in the menu at the top of the screen. Select "Contours" from the drop down menu. Select "Feet", "Fathoms" or "Meters" from the box. Bathymetric map contours and charts from countries outside the US are in meters. Contours and soundings from US navigation charts are usually in feet and fathoms. Convert meter or feet units to fathoms by clicking on "Convert to Fathoms."

### Exiting the Software

***Always*** exit GLOBE and any other software, including Windows before shutting down the computer. Data can be lost if the computer is shut down while the application is still open. To shut down GLOBE click on the X button in the upper right corner of the screen. Or select "File" from the menu and click on "Exit" from the drop down menu.

It is important that you also exit Windows before shutting down the computer. Select the "Start" button found in the lower left corner of the screen. Select "Shut Down…" from the menu and wait for the OK to shut down the computer.

### Function Keys

The keys at the top of the keyboard are called "Function Keys" and they are numbered "F1" through "F12." GLOBE uses several of these keys as shortcuts.

- **F1**—This key opens the Help menu. Selecting highlighted text will move you to that part of the help menu. Selecting "Home" will bring you back to the opening menu. All of the GLOBE features are explained in the Help menu.
- **F3**—Pressing this key places a mark at the cursor position.
- **F4**—Pressing this key places a mark at the vessel position.
- **F5**—Pressing this key places a line vertex at the cursor position.
- **F6**—Pressing this key places a line vertex at the vessel position.

### GLOBE Context Menus

Each item in the GLOBE display has it's own context menu. A context menu contains options that are related to that object. For example, to change the latitude/longitude center and range of the current Chart View Window, right-click in the chart window and select the Properties option in the Chart View Window context menu. Use the arrow cursor to view the Context Menus. Using the zoom cursor will cause the chart view to zoom out.

To open a context menu, place the cursor on the desired display object and press the right-hand mouse/trackball button. When the context menu appears, click on the desired menu option with the left mouse/trackball button.

### Chart View Window Context Menu

The Chart View Window context menu contains menu options related to the chart display:

- Charts at Cursor—allows you to select a new chart based on cursor position.
- New Chart at Cursor—allows you to view a new chart area by lat/long coordinates and range. You can also set the chart window to follow the vessel, cursor, camera or look ahead.
- Contours—sets contour color and visibility ranges. Also use the “View” menu option.
- Layers—same as “View” Layers menu option
- Quick route—creates a single waypoint route line. Place the new cursor at the desired location and press the left mouse button.
- Mark—creates a mark at the cursor position.

If there is an open track file, you can also edit your track line by right clicking on a vertex of the track line. The three options are:

- Change This Track Section’s Color—changes the color of the selected track section. This option will be grayed out unless the Track Properties are set to Color by Color. That means that the track lines are colored by the user and not by input from various sensors.
- Delete This Track Section—deletes the selected track section.
- Delete All ■ Tracks—deletes all tracks of the displayed color. This option will be grayed out unless the Track Properties are set to Color by Color. That means that the track lines are colored by the user and not by input from various sensors.
- The “Properties” option displays the current chart information. You can change the chart view by modifying the latitude, longitude and range numbers.

### Erase Mode Context Menu

The Chart View Window context menu while in erase mode contains menu options related to the eraser tool. After selecting the eraser tool, right click in the chart window. The eraser tool is used to selectively erase marks, lines and tracks. Click on the type of data that you wish to erase: marks, lines, or tracks.

### Line Mode Context Menu

The Chart View Window context menu while in line mode contains menu options related to the line tool. The line tool is used to create and edit lines. Click the End Line option to end the current line and start a new one.

### Route Mode Context Menu

When in route mode the Chart View Window context menu contains menu options related to any opened routes. Use this menu to follow, create, edit, or close a route. You can also delete, create or edit individual waypoints within a route.

### Depth Profile Context Menu

The Depth Profile context menu contains menu options related to the Depth Profile. The Depth Profile displays seabed classification data in a streaming format. Select the Hide option in the Depth profile context menu to turn off the display of the Depth Profile window. You can also toggle the display of the Depth Profile window in the GLOBE Toolbars menu.

### Elevation Color Bar Context Menu

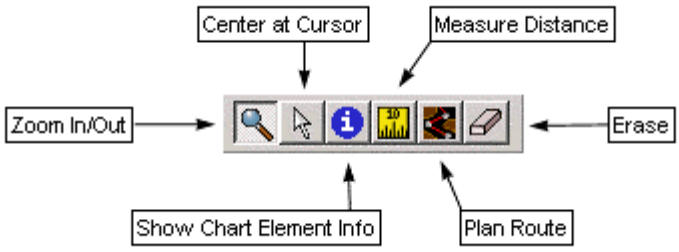
The Elevation Color Bar context menu contains menu options related to the Elevation Color Bar. Use the Elevation Color Bar context menu options to edit the coloring schemes for contours. Use the 'Hide' option in the Elevation Color Bar context menu to disable the display of the Elevation Color Bar. The contours will display using the color scheme even if the Elevation Color Bar is not displayed.

### GLOBE Toolbars

The buttons that make up the various Toolbars are in groups of related tasks. Each group can be moved, or “docked” in different sequences.

### Toolbar Basics

The GLOBE toolbars perform several useful functions. Each of the Toolbars will be briefly explained here. Clicking on a tool button will either bring up a new menu or it will change the cursor to a different operation.




### Zoom In/Out Button

Selects the zoom cursor. To zoom in on a chart view window, select this cursor and left click in the window. Dragging a rectangle in a window with the left button held down will cause the window to zoom to the area covered by the rectangle. To zoom out, right click in a chart window. The position at the cursor becomes the center of the window after the zoom.

### Center at Cursor Button

Left click at a position in a chart view to re-center the chart view window on that location. Clicking with the right trackball/mouse button while this cursor is selected will bring up a context menu that allows you to modify the attributes of the screen object that you clicked on.

**Show Chart Element Info**

Selects the "Chart Information" mode. When chart data is selected with this cursor a dialog is displayed with all available information about that data. Some of the information displayed includes data source, date issued, and depth values.

**Measure Distance Button**

To measure distance between two points, select the ruler tool, move the cursor to the first point, hold down the left mouse button, and move the cursor to the other point. A great circle rubber band line will be drawn between the 2 points, and the distance and bearing from the first point to the current cursor position is displayed. Right-click and select “Hide Measurement” to remove the ruler from the screen. Single-clicking in the chart view will also remove the ruler.

**Plan Route Button**

The Route Utility has been completely rebuilt. The four additional route buttons have been removed. All of the route functions are available from this one Route button. When this button is clicked, the cursor changes to a compass.

**Start a New Route**: To start a new route, select "New..." from either the "Routes" menu or the "File" menu in the Route Editor. Waypoints can then be added to the route either graphically or with the Route Editor. Double-clicking in a chart view after a new empty route has been created will always add the new waypoint to the new route - even if other route files are also open.

**Graphically edit a route:** In order to graphically edit a route, you must first select the route plan tool.
Existing waypoints can be moved simply by dragging them with the mouse. Existing waypoints can also be modified or deleted by right-clicking them and then selecting the appropriate command from the context menu.
New waypoints can be created by double-clicking in a chart view. Double-clicking on an existing route leg will insert a new waypoint on that leg (splitting it into two legs). Double-clicking elsewhere in a chart view will add a new waypoint either before the first waypoint in a route or after the last waypoint-- whichever is closer. In the case where no existing route files are open, double-clicking in a chart view will bring up the "New Route" file dialog.

**Start a "Quick Route":** To start a Quick Route (single waypoint route), complete the following steps.

- Zoom and pan as necessary to display the desired waypoint location in the Chart View window.

- Select the "Quick Route" command from the "Routes" menu.
- Using the Quick Route cursor  , click on the desired waypoint location in the Chart view window.

**Start following a route:** Any waypoint can be set as the goto waypoint by right-clicking on the waypoint with the route cursor and then selecting "Goto Waypoint" from the Route mode context menu or by selecting the desired waypoint in the Route Editor and then selecting "Goto Waypoint" from the "Tools" menu. See also "Goto Closest Waypoint" in the "Routes" menu.

**Follow a route in reverse:** You can reverse the order of the waypoints in any route. First, select the desired route in the Route Editor dialog and then select "Reverse Route" from the "Edit" menu.

**Control when GLOBE changes route legs:** There are two settings that control when GLOBE automatically switches from the current route leg to the next leg. GLOBE can be set to switch legs based on an arrival circle around the destination waypoint and/or based on a line perpendicular to the current leg that passes through the destination waypoint. The leg switching method and the size of the arrival circles are adjusted in the Route Properties dialog.

**Use magnetic or true bearings for the route:** You can use magnetic or true headings for all route plan functions. The default is true. Select Bearing type from the “Display” tab of the “Route Properties” window. Set Magnetic Variance from the “Options” menu.

**Eraser Button**

Pressing the “Eraser” button will change the cursor into an eraser cursor. This tool will erase lines, tracks and marks. If Terrain Builder is enabled, the eraser tool will also erase point data when that option is selected.

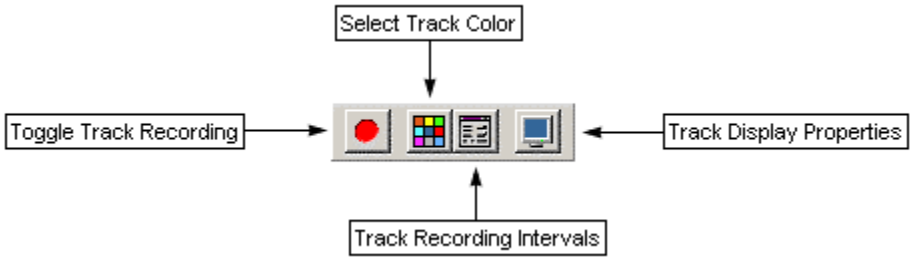
- To erase marks, lines or tracks click the eraser button
- Click anywhere in the chart view with the right mouse button.
- A box will appear with three options—Erase Lines; Erase Marks; Erase Tracks.
- Select the type of data you want to erase.
- For tracks and lines drag a window around any end or vertex. To drag a window hold the left mouse button down while moving the cursor over a vertex.
- You will get a message that asks you to verify that you want to delete the selected track. Click “Yes” to erase the track or click “No” to quit.

•To delete a mark, or several marks, select the “Erase Marks” option and drag a window around the marks that you want to delete. You will get a message asking you to confirm the mark deletion.

•If Terrain Builder is installed, “Terrain” will be added to the list. Drag a window around a data point or points. You will be asked to confirm deletion.

### Toolbar Basics: Tracks

This Toolbar lets you easily start or stop track files. You are able to start and stop track recording, select track color and tracking intervals. The track toolbar looks like this:




### Toggle Track Recording Button

Selecting the red button toggles the tracking on and off. When the button is depressed, the tracking is on. Clicking again will turn the tracking off.

### Select Track Color Button

Select this button to set or to change the color of the track line. Clicking on this button will bring up the color map. Select a track color by clicking on the color square. Press “OK” to accept and “Cancel” to abort.

### Track Recording Intervals Button

Pressing this button brings up the “Track Recording Intervals” window with several selectable options. This function determines how often track data points are stored. **WARNING**: recording excessive amounts of track data will slow down the system!

•Interval by time changes in minutes or seconds

•Interval by changes in distance in Nautical Miles, Statute Miles and Kilometers

•Temperature can be recorded by changes in degrees in Celsius or Fahrenheit

•Depth can be recorded in changes in the intervals of feet, fathoms or meters

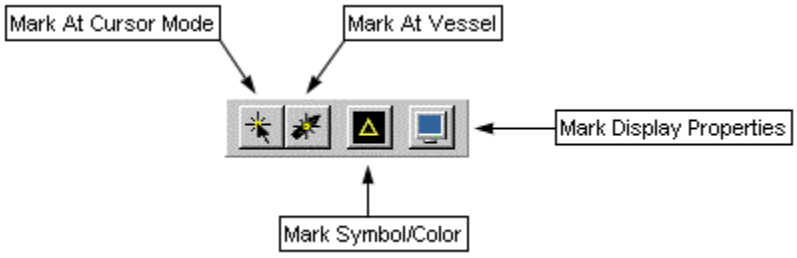
•The track can also be recorded by change of vessel course measured in degrees

Select one or more of these options for your track file recording intervals. Press “OK” when finished or “Cancel” to quit.

**Track Display Properties**

Set track display properties using this button. Line color, text display and display by time period are selected from this window

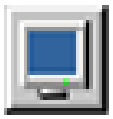
**Toolbar Basics: Marks**




Clicking on the “Mark at Cursor” button allows you to place a mark at the cursor position. Click on the chart window to place a mark at the cursor location. When finished, press the **ESC** key to return to the previous cursor, or select another tool.

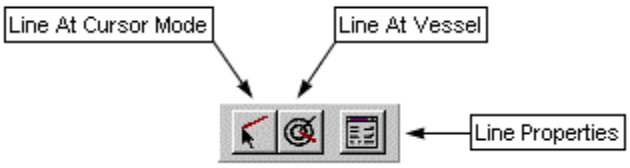
Clicking on the “Mark at Vessel” button places a mark at the current vessel position.

Click on the “Mark Symbol, Color” button to quickly change mark symbols and mark colors.



The Mark Display Properties button allows you to display text associated with the mark, set color by time, set font size and set intensity of color by catch.

## Toolbar Basics: Lines



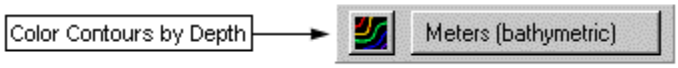

This is the line at cursor button. The cursor turns to a pencil. Place the cursor at the first line point and press the left mouse button to start a line. When you have completed your line, right click and select “End Line.”

This is the line at vessel button. As the vessel moves, pressing this button creates a vertex and a line to the previous point.

This button brings up the Line Properties window. You can set line width in pixels, feet, yards or meters. Pressing the “Color” button brings up the color map from which you can choose your line colors.

## Toolbar Basics: Contours

Contour display options are available from the Contours Toolbar. From the “Toolbar” menu, click on “Contour Tools.” The Toolbar looks like this:




The Contour Colors button uses the colors set in the “Elevation Color Bar”. Click on the Contour Colors button to quickly change the contours from the Normal mode to Color Range. Click on the Contour Selection Button to the right of the Contour Colors button. Depending on the types of charts loaded in GLOBE, the selections will look something like this:

Fathoms (navigation) - fathom contours from standard navigation charts

Fathoms (N bathymetric) - fathom contours from "N" bathymetric maps

Feet (navigation) - feet contours from standard navigation charts

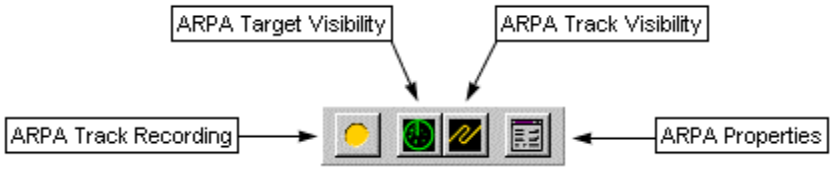
Meters (bathymetric) - meter contours from bathymetric maps

Meters (navigation) - meter contours from standard navigation charts

Meters (LM bath) - meter contours from "LM" bathymetric maps

## Toolbar Basics: ARPA

The ARPA (Automatic Radar Plotting Aids) overlay buttons look like this:




### ARPA Track Recording Button

The yellow ARPA Track Recording Button toggles the track recording function on and off.

### ARPA Target Visibility Button

The ARPA Target Visibility Button toggles the visibility of all the targets on the screen.

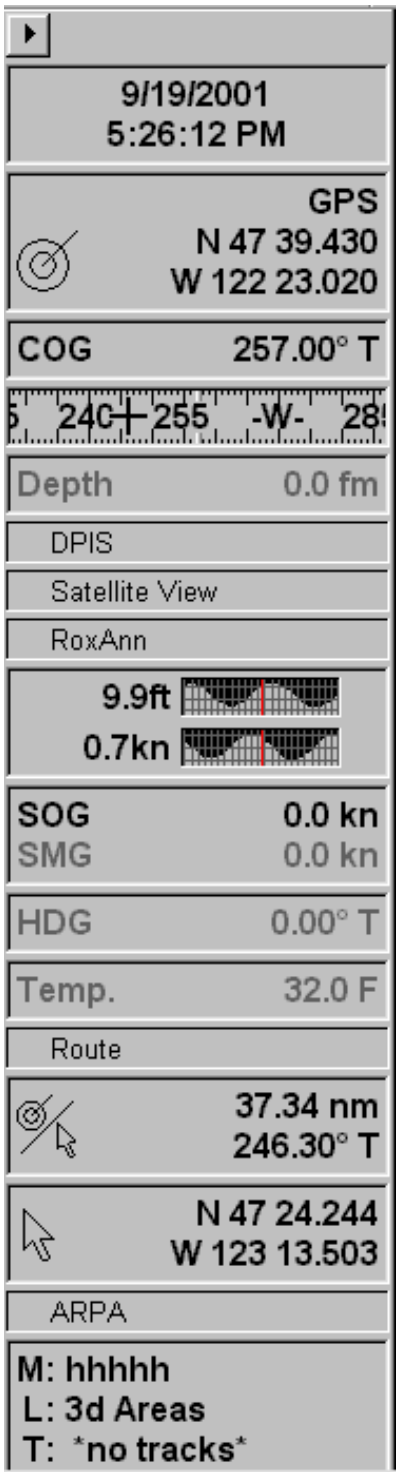
### ARPA Track Visibility Button

The ARPA Track Visibility Button toggles the visibility of all ARPA tracks on the screen.

### ARPA Properties Button

The ARPA Properties button brings up a window with several setting options. The Display Page sets the display ranges for the targets, such as length of time to show tracks, track line thickness and target size. The Alarms page provides settings for Closest Point of Approach Trigger Distance. The Targets Page can be used to set target display properties. See the chapter on "ARPA Radar" for more detailed instructions.

## THE INSTRUMENT PANEL




Time & Date

GPS Position

Course Over Ground

Compass

Depth at Vessel

Drag Arm Position Indicator System-Dredge Sys.

GPS Satellite Information (See below)

Seabed Classification System

Tide & Current, when installed in GLOBE

Speed Over Ground
Speed Made Good

Heading, True & Magnetic

Temperature at Vessel

Route Information

Vessel to Cursor, Distance and Bearing

Cursor Position

Radar Target Information

Open Files: Marks, Lines & Tracks

The Instrument Panel can be set up to suit individual needs. Adding and subtracting the various instruments is very easy. Click on the ▶ button in the upper left corner. Click on the word "Instruments" and put a check mark in the boxes to the left of the instruments you want displayed in the panel. Click again in the box to deselect the instrument. You probably won't be able to display all of them at once. The following table lists the instruments currently available:

| | | |
|---|---|---|
| Date/Time | Vessel Position | Satellite View |
| Depth | American Pioneer | Quester Tangent |
| RoxAnn | Temperature | Speed—SOG, SMG |
| Route | Heading | Course |
| Compass | Vessel To Cursor | Cursor Position |
| ARPA | Data Files | Tide & Current, When Installed |

When an instrument is highlighted, you can move it up or down by clicking on the "Move Up" or "Move Down" button.

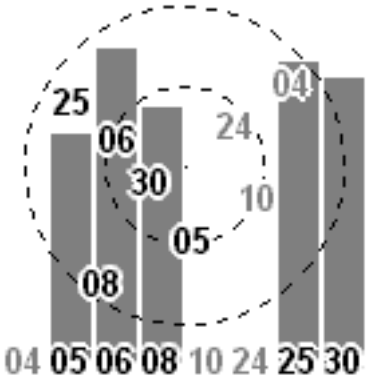
To minimize an instrument window place the cursor in the window. Two buttons will appear: "_" and "▶". Click on the "_" button to minimize the window.

Clicking on the "▶" button in the instrument window brings up a menu that lets you set font size, font color and background color. The "Foreground Color" option sets the font color. Font size also determines the width of the Instrument Panel. Some instruments have additional options related to that individual function. For example, the vessel position indicator offers the option of viewing the Horizontal Dilution of Precision (HDOP) from the GPS. The Course window allows you to select "Course True," Course Mag," or "Both."

**Moving the Instrument Panel**

The instrument panel can be moved to any of the four sides of the screen. Click and hold on the top of the Instrument Panel (or left side if on top or bottom). Drag the Instrument Panel to the desired location.

**Satellite View**




The Satellite View Instrument shows a north-up sky view of the visible satellites. The outer circle represents the horizon; the second circle is at 45º from the horizon; and the dot in the center is directly above the current position. The satellite ID numbers (PRN numbers 1-32) are plotted on this view using their elevation and azimuth from the GSV sentence. This sky view is overlaid onto a bar graph which displays the signal strength or SNR (Signal to Noise Ratio) of each satellite. The satellite ID is displayed at the bottom of each bar. IDs of active satellites

(retrieved from the GSA sentence) are displayed in the normal text color for the instrument while other IDs are displayed in a dimmed color.

**Compass**


The compass instrument is very much like the compass in your wheelhouse except that the bearing from the vessel to the cursor is displayed when the cursor is within the range of the compass.


Also, the bearing to the active waypoint will be displayed when the waypoint is in range of the compass, as in this illustration.

The size of the compass (and therefore the rest of the Instrument Panel) can be changed by selecting "Font" after clicking the "▶" button in the instrument window. Increase the font size to increase the width of the Instrument Panel.

**ELEVATION COLOR BAR**

The elevation color bar allows you to set the colors representing the depth contours. If the color bar is not on the screen, click "Toolbars", and then select "Elevation Colors". You can customize the color ranges of the contour lines by editing the "Elevation Color Bar." There are many options available to optimize the display for each individual use. You can edit the whole range of control points or edit an individual control point. A little experimentation will provide the best range for your own fishing needs.

After the Elevation Color Bar has been modified you can save the configuration by right clicking in the Bar and then selecting "Save" from the menu. Type in a new name in the "File name:" window and click on the "Save" button.

Loading an existing color scheme is just as easy. Right click in the Elevation Bar and select "Load" from the menu. Select a name from the list and then click on "Open" to load the color scheme.

GLOBE will be installed with a default color range. To edit the bar right-click in the elevation color window to bring up a context menu that will allow you to add a control point, delete all of the control points in case you want to start over, or to generate contour color ranges based on these colors.

An easy way to change the color ranges is to click on one of the color boxes (control points) in the elevation bar. Hold down the left mouse key and drag the box up or down to a new location. To quickly add a control point, double click in the Elevation Color Bar. A window will be displayed in which you can set the depth value (use the - sign) or change the color values. Double click on a control point to edit the control point. To quickly delete a control point drag the control point out of the Elevation Color Bar.

The Elevation Color Bar is used to create, edit and display elevation color schemes. You can create as many custom color schemes as needed using the Generate Contour Colors dialog. You can edit the minimum and maximum depths as well as the number of control points that make up a color scheme.

The current depth unit setting for GLOBE is displayed in the button at the top of the bar. This can be changed by selecting the desired unit from the drop-down menu that appears when clicking the button. (Units can also be changed by using the Units dialog in the Options menu.)

The boxes down the left edge of the color bar are control points. The depth that a particular control point represents can be changed as well as the colors above and below the control point. To change the depth associated with a control point you can drag it with the mouse/trackball. Double-clicking the control point will bring up the Edit Control Point dialog which can be used to change the colors and depth of that point. Double-clicking the color bar where there is no control point will create a new one.

On the right side of the color bar, there is a zoom/scroll bar. This can be used to view smaller sections of your color scheme which can be helpful when modifying colors in narrow depth ranges. At either end of the sliding scroll box, there is a small button. Clicking and dragging these buttons will change the elevation displayed at that end of the color bar only. Dragging one of these buttons toward the other button will zoom in to a smaller portion of your color scheme. Dragging one of these buttons away from the other button will zoom out. Dragging the sliding scroll box itself will just scroll to a different portion of your color scheme without changing the visible range. These actions affect the display of the color bar only and in no way modify your color scheme or how it is applied to other parts of the GLOBE display.

Right-clicking in the color bar will bring up the Elevation Color Bar context menu which has commands for loading and saving color schemes, deleting control points, etc.

## DEPTH PROFILE BAR

This window will provide a profile of the sea bed depth and sea bed classification. At this time GLOBE supports Quester Tangent's QTC View, RoxAnn, American Pioneer and a depth only profile. The different colors represent various bottom types. Select an option from the "Display" window.

You can alter the display size by clicking on the Depth Profile Window with the right mouse button. Select "Properties" from the pop up box. You can select the depth range to display on the Depth Profile Bar in the first column by typing in the top and bottom values in the small windows. The "Top" value represents the top of the bar and the "Bottom" value represents the bottom of the bar. If you type in 50 in the "Top" window and 100 in the "Bottom" window, the profile will only display the depths within that range.

The window size can be small, medium or large. Make a selection in the middle column.

Enable Tick Marks in the Depth Profile window by clicking in the box. Set the interval between the ticks by typing a number next to the "Minutes" box.

When finished with your configuration, press the "OK" button.

## THE GLOBE MENU

The Menu Bar, at the top of the screen, provides access to all of the GLOBE functions. Each title in the menu can be opened by placing the cursor over the menu title and clicking with the left mouse button and then moving the cursor to the item on the menu, then clicking again. Alternately, hold down the "Alt" key and press the corresponding underlined letter. For example, to open the "Tracks" menu you would hold down the "Alt" key and press "T".

Each of the menu options will be explained in the chapters to follow. An index is provided at the end of this manual. There is also a built-in "Help" file that explains many of these functions. Some of the functions have been explained in the "Toolbar Basics" section, but will be reviewed in the following chapters.

## FILE MENU

The "File" menu contains the chart selection menus, and the print command. You may also exit the program from this menu.

### New Chart

This window allows you to open a new chart window by Latitude and Longitude and by Range. You may also set the "Follow" (as in Follow Vessel or Follow Cursor) settings from this window.

When you select "New Chart", a menu will appear called "Properties." Type in the latitude and longitude coordinates for the center of the area that you wish to view. The "Range" box refers to the distance from the middle of the screen to the top of the screen.

The options listed under "Follow" tell the charting program how to scroll the chart in the chart window:

- Clicking on "Vessel" will scroll the chart as the vessel moves to the edge of the current chart view.
- Clicking on "Cursor" will re-center the chart based on actions taken with the zoom and arrow cursors.

•The “Ahead” mode also follows the vessel. When the vessel is beyond half the distance to the current window edge, the view is scrolled in the direction of travel. For example, if the vessel is traveling north, when the vessel enters the top half of the window, the view is scrolled so that the vessel is at the bottom of the window. There will be a full chart view ahead.

### Chart List

Selecting the “Chart List” option brings up a list of charts by number. The window also lists the chart attributes:

•Name—such as UNIMAK PASS

•Number—such as 16520

•Scale—such as 1:300,000

•Units—such as meters or fathoms and occasionally, feet

•Mapping Office—such as NOAA

Clicking on the “Installed” button shows a list of all the charts installed on your computer. You can view a list of available ECC charts that are not installed by clicking on the “Uninstalled” button or see all of the possible charts by clicking “All.”

Click “OK” to make your selection.

### Charts At Vessel

Clicking the “Charts At Vessel” option will provide a list of all the available chart data at the vessel position. This option will be grayed out if there is no valid vessel position. Select a chart from the list and press “OK” to finish your selection.

### Print

In order to print the current chart view a printer must be installed in Windows. If you get a message that says that there is no default printer, the screen will also tell you how to install your printer in Windows. You will need your Windows Installation Diskettes or CD to install most printers.

### Log File

Select the desired log files for viewing or playing.

“Play” (Log): Click the Play button to playback a log file. Playing a log file will graphically display (in GLOBE) all data stored in the log file.

While the log file is being played, the Play Log Dialog window will be displayed. The slider can be dragged to move to a different position in the log

“View” (Log): Click the View button to view the selected log file. The log file will be displayed in text form just as it was received by GLOBE. If you are viewing a log file for the first time in GLOBE, you may see the Open With... dialog. Just select Notepad or Wordpad to display the log file.

### Log Settings

Log Record Rate: Move the slider using the mouse/trackball to change the rate at which incoming NMEA data is recorded in the log file. The following options are available:

- Don't Record
- Record Every 64th Sentence
- Record Every 16th Sentence
- Record Every 4th Sentence
- Record All Incoming Data

Enable Automatic Log Removal: Check this box to enable the automatic removal of log files after a specified number of days.

Automatic Log Removal Time Period: If automatic log removal is enabled, enter the number of days that you wish to keep log files before they are automatically removed.

### Exit

To quit the program select “Exit”. You can also click on the “X” button in the upper right hand corner. Alternately, you can hold down the “Alt” key, press “F” and then press “X”. All settings will be automatically saved when you exit the program.

### TOOLBAR MENU

The visibility of all the toolbars, the Depth Profile, Elevation Colors and the Instrument Panel are toggled on and off from this menu. Clicking on an item will toggle the view on and off. A check mark to the left of the item indicates that the item will be displayed. If you are not using a bottom classification system interface, there will be no Depth Profile information to display. If you are not editing the “Elevation Colors” bar, then turning it off will give you more screen room.

### Toolbar Size

The size of the buttons on the toolbars can be scaled to suit your preference. Select “Small or “Large”.

### Multiple Data File System

ECC-GLOBE includes a multiple file system for marks, lines and track files. This feature allows the user to open more than one file of any type (marks, lines or tracks) at one time. Simply use the Open or New option in the Marks, Lines and Tracks menus to open or create additional files.

One each of the open mark, line and track files is set to be the "Active File". When the user deletes, modifies, or creates data, the changes are made to the

"Active File". Any open file can be made the "Active File" by using the Set Active option in the Marks, Lines and Tracks menus.

Please see the notes below for more information on Marks, Lines and Tracks menu options related to the multiple data file system.

## MARKS MENU

All of the marks are stored in a database which makes storage and retrieval easy. Comments and mark names are easy to enter and find. Mark searches can be narrowed to certain colors, symbols, names, dates, or any word or phrase stored in a comment.

### Marks, New

To create a new mark file click on "Marks." The menu will give you several options—select "New" to open a new mark file. The default mark file is "Marks". Type in a new mark name and press "Save". There are two check boxes at the bottom of the window. "Make Active After Opening" makes the selected file the active file when opened. Checking the "Close Currently Open Files" box will close all currently open files when the selected file is opened.

### Marks, Open

Select this option to open an existing mark file or files. A list of existing files (that are in the "Mark" folder) will appear in the "Open Mark File" window. Click to select one (or more) of them and click on "Open". There are two check boxes at the bottom of the window. "Make Active After Opening" makes the selected file the active file when opened. Checking the "Close Currently Open Files" box will close all currently open files when the selected file is opened.

### Marks, Save a Copy

This option saves a copy of the mark file currently in use to another file name. Type in a new name in the "File name" window and click on "Save a copy…". This does not change the file that is currently in use.

### Marks, Set Active

Set Active allows the selection of an "Active File" from a list of all of the open files. The file is selected using the Set Active File dialog. Highlight the desired file and then click the OK button.

### Marks, Close

Selecting Close will close the active mark file. If multiple mark files are open, you will be prompted to select a new active file from the remaining open files. There are two other menu items related to the Close menu. If you have multiple files open, you can choose to close the active file. The active file will be displayed in the menu. You may also close all of the inactive files from this sub-menu.

### Marks, Display Active File Only

This option displays just the active file. It toggles the display from multiple files to the one Active File.

### Mark at Cursor

There are a couple of ways to place a mark at the cursor position. The quickest method is to press the “F3” key on the keyboard after positioning the cursor. You can also use the “Mark at Cursor” button from the Marks toolbar. That changes the cursor to “Mark at Cursor”. Pressing the “Insert” key brings up the Mark Properties window where you are able to edit the mark name, symbol and comments. Press “OK” to place the mark.

### Mark at Vessel

Select this option from the menu to place a mark at the vessel position.

### Mark Manager

The Mark Manager is an easy way to display, edit or add new marks using a list format. Each mark and it's parameters are listed on a single line. Most mark parameters can be edited by double-clicking on them. For example, double-clicking on a cell in the Symbol/Color column will bring up the Mark Defaults dialog for selecting a new symbol and color. Some parameters such as creation time/date, depth, and temperature can not be changed because the data is only valid as is.

Mark Manager Quick Tips:

Double-click on a cell to edit it.

Click on a column title to sort the mark list by that column. Click again to reverse the sort order.

The width of the columns can be changed by putting the cursor on the right edge of the column (cursor will change) and, while holding the left trackball/mouse button, dragging the column edge to the desired width.

Any column width changes are saved when the Done button is clicked to close the Mark Manager.

To select a group of marks for printing or deleting, click on the first line, and while pressing the Shift key on the keyboard, click on the last line. This will highlight all of the selected lines.

If you click on a highlighted (selected) line while pressing the CTRL key on the keyboard, you can deselect that line.

Use the Selection option in the Print dialog to print a selected mark or group of marks.

You can open an existing mark file or start a new mark file from the File menu.

The name of the mark file that is currently open is displayed in the Mark Manager title bar.

Use the Unit Properties dialog in the Option menu to change the units used for any column. You will have to exit the Mark Manager to change units.

Click on a mark and drag it to the chart view to center that mark on the screen.

**File** (Menu) **New:** Use this option to start a new mark file without exiting the Mark Manager.

**Open**: Use this option to open a new mark file without exiting the Mark Manager.

**Save A Copy:** This option will save a copy of the currently active mark file to a new mark file.

**Print**: The Print option allows you to print all or part of the Mark Manager mark list.

At the bottom of the menu there will be a list of the most recently used files:

1 'Mark file' . . . 4 'Mark file'. This is a quick way to open a mark file.

**Edit** (Menu)

**Delete Selected Mark**(s): Select this option to delete a highlighted mark or group of marks in the mark display list. You can also use the Delete key on the keyboard to delete a mark or marks rather than clicking on the Delete Selected Mark(s) option in the Edit menu.

**Add New Mark**: Use the Add New Mark option to insert new, manually entered marks to the mark display list. You can also use the Insert key on the keyboard to create mark rather than clicking on the Add New Mark option in the Edit menu.

New marks created in the Mark Manager are automatically given the default symbol and color set by you in the Display Properties option in the Marks menu.

**View** (Menu):

**Grid Lines**: Click on the Grid Lines option to toggle the display of grid lines in the mark display list.

**Mark List**

**Name:** The Name column in the mark display list shows the name of a mark. Click on the 'Name' title block to sort all of the marks in ascending order by their name. Click again to sort in descending order.

**Latitude:** The Latitude column in the mark display list shows the latitude of a mark. Click on the 'Latitude' title block to sort all of the marks in ascending order by their latitude. Click again to sort in descending order.

**Longitude:** The Longitude column in the mark display list shows the longitude of a mark. Click on the 'Longitude' title block to sort all of the marks in ascending order by their longitude. Click again to sort in descending order.

**Created:** The Date/Time column in the mark display list shows the creation time and date of a mark. Click on the 'Date/Time' title block to sort all of the marks in ascending order by their date and time. Click again to sort in descending order.

**Modified:** This column shows the time a mark’s properties have changed.

**Comment**: The Comment column in the mark display list shows the mark comment. Click on the 'Comment' title block to sort all of the marks in ascending order by their comment. Click again to sort in descending order.

**Symbol/Color:** The Symbol/Color column in the mark display list shows the symbol and color of a mark. Click on the 'Symbol/Color' title block to sort all of the marks in ascending order by their symbol and color. Click again to sort in descending order.

**Depth:** The Depth column in the mark display list shows the depth at a mark at the time that the mark was created. Depths are only recorded for marks created at the vessel's position. Click on the 'Depth' title block to sort all of the marks in ascending order by their depth. Click again to sort in descending order.

**Temperature:** The Temperature column in the mark display list shows the temperature at the mark when it was created. Temperatures are only recorded for marks created at the vessel's position. Click on the 'Temperature' title block to sort all of the marks in ascending order by their temperature. Click again to sort in descending order.

**Catch (Rating):** The Catch column in the mark display list shows the user assigned catch rating given to a mark. Click on the 'Catch' title block to sort all of the marks in ascending order by their catch rating. Click again to sort in descending order.

### Marks, Show All

This option resets the Mark Visibility settings to display all of the marks in the currently open mark files.

### Mark Defaults

The "Mark Defaults" option sets the attributes for the next marks. Select a symbol from the left columns and a color from the right columns. Click on "OK" to finish the selection.

### Mark, Display Properties

This option sets the mark display properties that are based on the data base information stored with each mark. This window allows you to display marks with attributes such as names, colors from input devices, size, comment indicator and intensity.

1. **Text—**Select one of the following options: None, Name, Date & Time, Depth, Temperature, or Catch. NOTE: For either "Depth" or "Temperature" to be displayed, a mark at vessel must have been placed with the appropriate device connected to the computer. "Catch" is a user-defined number associated with the mark in the chart window. To enter this number right-click on the mark. Select "Mark Info" from the menu. In the right corner type in the catch number you want associated with this mark. Press "OK" to complete the entry.

**2. Color**—This option allows you to change the color of the marks based upon a time range. Use the "Time Span" page in this window to select the date range. "Time Span" will affect what is displayed, but it will not affect the colors.

**Normal**—In this mode the marks are displayed in the original colors.

**Day of Week**—Marks are displayed with a different color based upon the day of the week that the mark was recorded. This mode is most useful when viewing marks recorded over a couple of days.

**Day of Month**—Marks are displayed with a different color based upon the day of the month the mark was recorded. This mode is most useful when viewing marks recorded over a couple of weeks.

**Month**—Marks are displayed with a different color based upon the month the mark was recorded. This mode is most useful when viewing marks recorded over a year or more.

**3. Size**—You can adjust the display size of the marks by selecting a value in the selection box.

**4. Comment Indicator**—Checking this box will display an asterisk (*) to the right of a mark that has a comment associated with it.

**5. Intensity**—If catch values have been entered with the marks, checking this box will display the marks at various brightness levels, depending upon the rating assigned to the mark.

### Mark, Visibility

There are three ways to set the mark visibility ranges. You can define or limit the mark visibility by setting these ranges.

**Visibility--1. Symbol**—Click on the "Symbol" box at the top of this group to enable mark visibility as defined by its symbol. If the box is not checked, all marks will be displayed. If the box is checked, only the marks with symbols that are highlighted will be displayed. To highlight more than one symbol hold down the "Ctrl" key on the keyboard and click on the additional mark symbols that you want displayed. A range of symbols can be selected by selecting the first symbol, then pressing the "Shift" key while clicking on the last symbol in the range.

**2. Color**—Click on the "Color" box to enable mark visibility as defined by its color. If the crab symbol is selected and yellow is also selected, then only yellow crab symbols will appear. Like symbols, multiple colors can be selected.

**3. Name/Comment**—Check this box to enable mark visibility by name. When name based visibility is enabled, only marks with names that contain the text entered into the text box will be displayed. For example, if the word "wreck" is entered in the text box, then only marks with a name or comment that contains the word "wreck" will be visible. The names "boat wreck," "WRECK," and "wreckage" will also be visible.

**Area**—You can set latitude/longitude boundaries to the marks displayed as well.

**1. Enable Area**—Click in the “Enable Area” box to limit mark display to a certain latitude and longitude range.

**2. South West**—Enter the southwest corner in latitude and longitude of the area in which the marks will be displayed. Enter the latitude in the top box and the longitude in the bottom box. Enter the position with spaces between the divisions. For example, N 48 30 00.

**3. North East**—Enter the northeast corner in latitude and longitude of the area in which the marks will be displayed. Enter the latitude in the top box and the longitude in the bottom box. Enter the position with spaces between the divisions. For example, W 120 60 00.

**Time Span**—You can also set time limits to the marks displayed.

**1. Show All**—All marks will be displayed regardless of the time they were recorded. Keep in mind that the “Visibility” and “Time Span” work in conjunction. In order for a mark to be visible, it must meet all visibility and time span criteria.

**2.** There are three buttons that you can select to limit the time span of the displayed marks: Before a certain date/time, After a certain date/time, or over the Last *x* days or hours.

## LINES MENU

Line files are managed from this menu item. Open a new file or an existing file, save a copy of the current file and close the current file. The line properties are also set from here. The last four opened line files will be displayed at the bottom of the menu. Click to select one (or more) of them and click on “Open”.

For quick line drawing press the function key, “F5”, to place a vertex at the cursor position. Press the “F6” key to place a vertex at the vessel position.

GLOBE allows the user to have multiple line files open at the same time. This feature allows the user to open more than one line file at the same time. Simply use the Open or New option in the Lines menus to open or create additional files.

One line file is set to be the "Active File". When the user deletes, modifies, or creates data, the changes are made to the "Active File". Any open file can be made the "Active File" by using the Set Active option in the Lines menu.

### Lines, New

To start a new file select “New” from the menu. A window will pop up with the names of previously saved files. To create a new file, type in a name in the “File name” box. Click on “Save” to start the new file. Click on “Cancel” to abort the entry.

There are two check boxes at the bottom of the window. “Make Active After Opening” makes the selected file the active file when opened. Checking the “Close Currently Open Files” box will close all currently open files when the selected file is opened.

**Lines, Open**

The “Open line file” window displays all of the line files in the “Lines” folder on your computer. Select one of the names by clicking on the file and then clicking on “Open”. Click on “Cancel” to abort.

There are two check boxes at the bottom of the window. “Make Active After Opening” makes the selected file the active file when opened. Checking the “Close Currently Open Files” box will close all currently open files when the selected file is opened.

**Lines, Save A Copy**

This option allows you to save a copy of the current lines with another name. All of the lines in the current line file will be saved to a new file. Type in a new name in the “File name” window and click the “Save” button. Click on “Cancel” to abort.

**Lines, Close**

Selecting this option closes the current line file or allows you to select from the currently open files. You cannot create lines without an open line file. You can close the active in the sub-menu below. The name of the active file will be displayed. Selecting “Close All Inactive” will close the inactive files.

**Line at Cursor**

The function key, “F5” will place a line vertex at the cursor position. Pressing the “ALT” key and the “L” key and then the “U” key changes the cursor to the line drawing mode. Press “ESC” to end the line or right click and select “End Line.”

**Line at Vessel**

Pressing “F6” will draw a line at the vessel position from the last vertex entered. Pressing the “ALT” key and the “L” key and then the “V” key will also put a line vertex at the vessel position. Press “ESC” to end the line.

**Line to Lat/Lon**

The “Line to Lat/Lon” option allows you to create a line based on lat/lon coordinates. Type in the latitude and longitude in the box and click on the Add button. You will add a line vertex each time you click the “Add” button. Continue until the line is completed. Press “Done” when finished.

### Lines, Properties

The “Properties” menu allows you to set the line width and the color. The width can be set to Pixels, Feet, Yards or Meters. Selecting the “Color” button brings up the color option window. Select a color from the box and click on “OK” to finish the selection. Press “Cancel” to abort.

## TRACKS MENU

GLOBE allows the user to have multiple track files open at the same time. This feature allows the user to open more than one track file at one time. Simply use the Open or New option in the Tracks menu to open or create additional files.

One of track files is set to be the "Active File". When the user deletes, modifies, or creates data, the changes are made to the "Active File". Any open file can be made the "Active File" by using the Set Active option in the Tracks menu.

### Tracks, New

To start a new track file click on Track, then click on New. You will be prompted to enter a name for the new track file. You can accept the default, which is a series of numbers based on time and date, or you can enter another name. When the name is entered, click “Save”.

The default names look like this:

970711_211223

In this example 97=year; 07=month; 11=day; 21=GMT hour; 12=minutes; 23=seconds.

There are two check boxes at the bottom of the window. “Make Active After Opening” makes the selected file the active file when opened. Checking the “Close Currently Open Files” box will close all currently open files when the selected file is opened.

Select the types of data that you want recorded in your new file. Your options are Color, Depth, Temperature, American Pioneer, JRC Bottom Hardness RoxAnn and Quester Tangent. Make sure your hardware supports these items before selecting them. If your sounder is connected to the GLOBE computer, you should select the top two items.

The Temperature selection requires a temperature probe connected to the sounder.

Click “OK” to complete the process. All incoming track data will be stored in the new file.

### Tracks, Open Track File

To open an existing track file click on "Track" and then click on Open. The window will display all of the track files stored in the Tracks folder. The files are stored in a Microsoft Database format (.mdb)

Select the file(s) you want to open by clicking on it and click on "Open".

There are two check boxes at the bottom of the window. "Make Active After Opening" makes the selected file the active file when opened. Checking the "Close Currently Open Files" box will close all currently open files when the selected file is opened.

### Tracks, Save A Copy

Save a copy of the current track file with a new name without closing the original track file. Type the new file name in the "File name" window and click on "Save."

### Tracks, Close

Selecting "Close" will close the active mark file. If multiple track files are opened, you will be prompted to select a new active file from the remaining open files. No new tracks can be recorded without an open track file. You can close the inactive files by selecting "Close All Inactive."

### Tracks, Record

Selecting the "Record" option starts the track recording to the active track file. The red "Record" button will be pressed in.

### Track Color

Selecting this option brings up the color map as described in the "Toolbar Basics: Tracks" section. Select the option, pick a color with the cursor and click "OK".

### Track Recording Intervals

Selecting this option brings up the same window described in "Toolbar Basics: Track Recording Intervals."

- **Time**—Check the Time box and type in the time value. Select Minutes or seconds in the window to the right.
- **Distance**—Check this box if you want your track to be recorded measured by changes in distance. The distance units can be Nautical Miles, Statute Miles or Kilometers.
- **Temperature**—Check this box if you want the track to be recorded by degrees of temperature change. The degrees can be calculated in Fahrenheit or Celsius. A temperature probe must be connected to the computer.
- **Depth**—Check this box if you want the track to be recorded by changes in depth values. Select Feet, Fathoms or Meters. A sounder must be connected to the computer.

•**Course**—Check this box if you want the track to be recorded by changes in Course. The calculations are in degrees.

•Click “OK” to finish your selection.

**Track Display Properties.**

Select and edit track display settings from this list. Add new settings to view temperature, depth, bottom classification types. Set time span for track viewing also.

The “Track Display Properties” window is divided into three editing pages:

•**Line**—Select the appropriate option in the “Color From” box. Then set the width of the track that will be displayed on the screen. You can select values in Pixels, Feet, Yards or Meters.

•**Text**—The text displayed with the track can be either Date & Time, Depth, Temperature, or either of the bottom classification systems. Select the appropriate option. Move the sliding bar up or down to select the density of the text display. The default text color is white. To change the text color click on “Modify” and pick a color. Click “OK” to finish.

•**Time Span**—This window allows you to view track data before or after certain date and time. The display options are:

- “Show All” displays all of the tracks in the file
- “Show Last” displays all tracks made before the date and time entered.

When this option is selected, you can also enter a length of time before the selected date, such as 7 days prior to 1/1/97, or 6 hours prior to the date and time selected.

•Click “OK” to accept and save your changes.

## ROUTES MENU

GLOBE contains advanced Route Planning features that allow you to enter waypoints by typing a list or graphically by moving and clicking the route cursor. Starting a route can be as easy as double clicking with the Route Cursor. Or you can start a new route by using the Route Menu.

**New...**

Create a new route file. Clicking “New” brings up the New Route window. Type in a name for the new route. Click on OK. Double click on the screen where you want to place the first waypoint. Click on the waypoint to move it or double click elsewhere for a new waypoint.

**Open...**

Open existing route files. Select a route from the list. Click OK.

**Close All Inactive**

Close all open route files other than the route currently being followed. The active route will have a Goto waypoint in the route.

**Quick Route**

Create a new single-waypoint route. Only one Quick Route can exist at any given time. Creating a new Quick Route will erase the previous Quick Route. To convert a Quick Route to a standard route, add another waypoint to it and then, when asked, give the route a name.

**Goto Closest Waypoint**

Set the waypoint nearest to the vessel as the goto waypoint.

**Stop Following**

Stop following the route.

**Route Editor...**

The Route Editor is used to create, delete and reverse routes. A list of waypoints for the selected route is displayed and can be edited or added to.

**Properties...**

The Route Properties dialog is used to adjust the route and waypoint display settings. The method for changing from one route leg to another is also set here.

Double clicking on a route leg will insert a waypoint at the cursor. To move a waypoint, click on the waypoint and drag it to a new position. Double clicking on the screen will add a waypoint either to the beginning of the route or the end, depending on which is closer. Right clicking on a waypoint will bring up a context menu with several options:

**Goto Waypoint:** Makes that waypoint the goto waypoint when following a route.

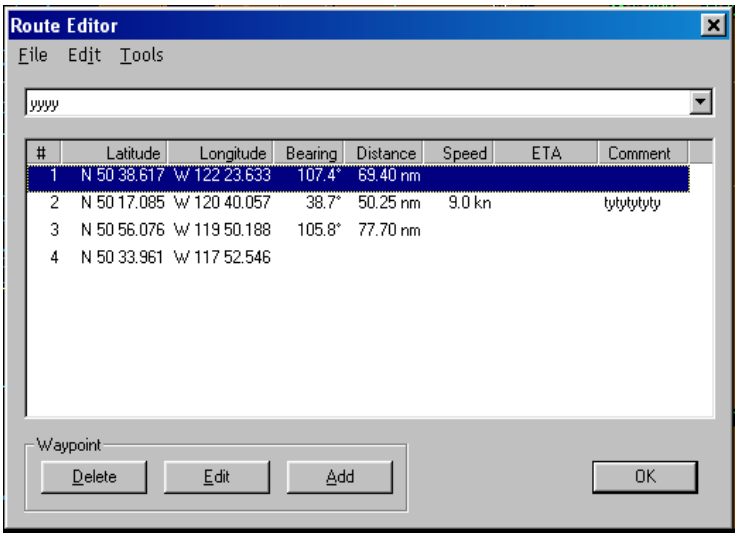
**Stop Following:** When following a route, use this option to end the route functions. Also turns off the Autopilot interface, when available.

**Edit Waypoint:** Brings up a window in which you can type in a new lat/long position for the waypoint. You can also type in average speed and add a comment to the selected waypoint.

**Delete Waypoint:** Deletes the selected waypoint.

**Edit "*filename*":** Brings up the Route Editor Window.

**Route Editor**



The “Delete” button will delete the selected waypoint. The “Edit” button will bring up the “Edit Waypoint” window. The “Add” button will add a waypoint below the highlighted waypoint.

The menu items at the top of the window are outlined below:

- **File:** The selections in this menu allow you to create a new waypoint file or open an existing file. You can save a copy of the currently open file, close the current file, or close all inactive files.

The Import function is used to import ASCII text files into GLOBE. This is useful for converting routes from other programs. The Export function is used to export GLOBE route files to ASCII text files.

- **Edit:** Use this menu item to Clear Leg Speeds. You can also reverse the route from this menu.
- **Tools:** Center the chart view on the selected (highlighted) waypoint. Set the goto waypoint at the selection. Open the properties window from here as well (see below).

**Close “*filename*”:** Closes the named route file.

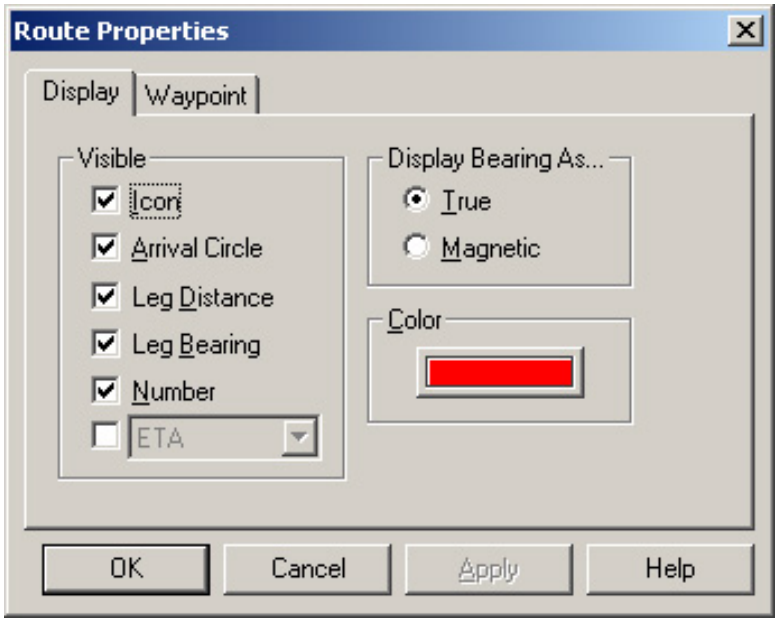
**Quick Route:** Changes the cursor to the waypoint cursor. Click on the screen to place the waypoint.

**Quick Route to Mark:**

- Click on the Route button in the toolbar.
- Select a mark that you would like to travel to.
- Click the right mouse button on the mark.
- Select the “Quick Route To Mark” option

**Route, Properties**

This window provides you with display options for your route.



When checked, the visibility of each route item is turned on.

**Display Page:**

- **Icons**—These are the waypoint symbols. When checked, they will be visible.
- **Waypoint Range**—Set waypoint arrival range ring visibility by checking this box.
- **Leg Distance**—The text that indicates the leg distance can be toggled on and off with this option.
- **Leg Bearing**—The text that indicates the bearing between two waypoints can be toggled on and off with this option.
- **Number**—The waypoint number visibility is set with this option.

•**ETA, Comment and Lat/Lon:** Click in the small window or on the down arrow to select additional Display Properties: ETA, Comment, or Lat/Lon.

Set your route bearing as true or magnetic by selecting the option in the “Route Properties” window:

**Display Bearing As…**

•True

•Magnetic

Use these to set your vessel bearing line to “True” or “Magnetic”.

**Color:** Change the color of route legs and arrival circles by clicking on the Color button and then selecting a color.

**Waypoint Page:**

**Enters Arrival Circle**

When the vessel enters the waypoint arrival circle of the goto waypoint, the next waypoint is selected as the new goto waypoint.

**Passes Perpendicular**

When the vessel passes the line perpendicular to the current leg and running through the goto waypoint, the next waypoint is selected as the new goto waypoint.

**Either**

If either of two events described above (arrival or perpendicular) occur, the next waypoint is selected as the new goto waypoint.

**Arrival Circles**

Enter the distance to be used as the waypoint arrival circle radius. The distance unit can be set to nautical miles, statute miles or kilometers.

**Leg Speeds**

Select the method used for automatically updating leg speeds when following a route. The leg speeds are recorded and displayed in the Route Editor.

Leg speeds are used by GLOBE to generate more accurate ETAs. When calculating ETAs, GLOBE uses the SMG (Speed Made Good) to the next waypoint as the speed for that leg. This speed will also be used for all subsequent legs until it gets to one which has an assigned leg speed. The speed for that leg is then used for all subsequent legs until it gets to another with an assigned speed. If SMG is not positive, no ETAs will be calculated.

With "Manual Entry Only", leg speeds will not be updated. With "Update Blank Entries", legs that do not already have a speed assigned to them will be assigned a speed computed from the ETAs of the two waypoints and the distance between them. With "Always Update", existing speeds are averaged with the newly computed speed.

Click “OK” when finished.

## ARPA MENU

Radars that output Automatic Radar Plotting Aids (ARPA) data in NMEA 0183 can show other vessels on the GLOBE plotting screen. The settings for this option are found in the “ARPA” menu. NOTE: In order for GLOBE to accurately plot ARPA targets it needs an accurate heading from a gyro.

The ARPA utility can record and store data for up to 100 targets over 48 hours.

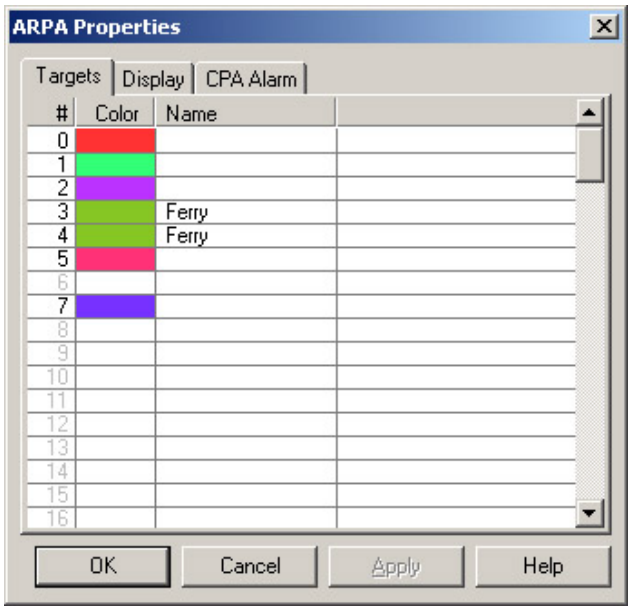
The Instrument Panel can be set up to show information for two designated targets. The distance to, bearing to, course, speed, closest point of approach in time and distance for any two targets can be displayed in the status bar.

•**Record**—When checked, begins recording the ARPA targets. Deselecting this item will stop the target recording. You can also click on the yellow ARPA tracking button in the toolbar.

•**Show Targets**—toggles the visibility of the ARPA targets

•**Show Tracks**—When checked, ARPA target tracks will be displayed.

•**Erase Tracks**—This option will permanently erase all recorded track data. You will be prompted to confirm your choice.

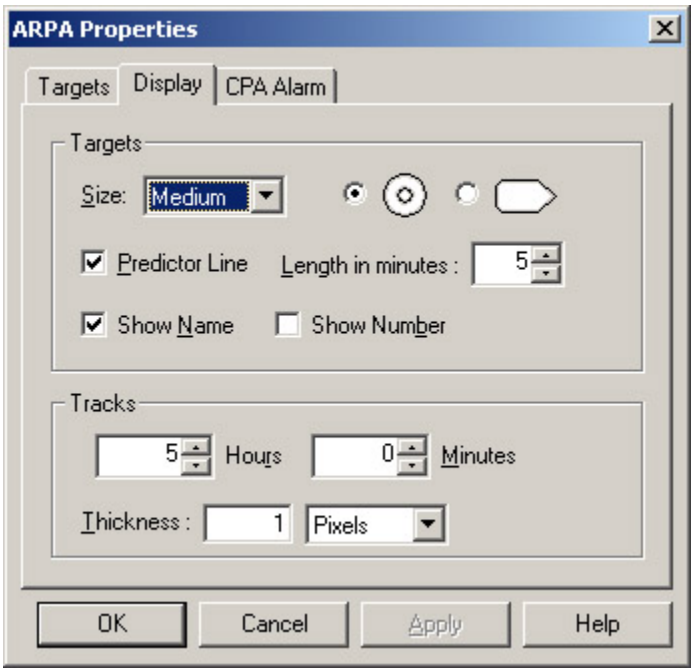



**ARPA Properties**

**Targets**

This page is used to set the Color and Name of individual targets.
To change the color of a target, double-click in the color field for the target and choose a new color from the "Color" dialog that appears.
To name a target, single-click in the "Name" column and simply type in a name. GLOBE will remember previously used names (up to 100) as well as the color that was last used with that name. If a target is given a previously used name, it will also be assigned the color associated with that name.
NOTE: Previously used names can be removed from the list by selecting the name and pressing Ctrl+Delete on the keyboard.

**ARPA Properties, Display**




**Display Targets:**

**Size**

Select Small, Medium or Large target sizes.

Select concentric circles or boat shape for targets.

**Predictor Line (and Length in Minutes)**

When the Predictor Line box is checked, a line indicating a targets course will be drawn on each target. The course line is drawn proportional to the targets speed (faster target, longer line). Enter the desired number of minutes in the Length in Minutes box to have the course line indicate where each target would be in the specified number of minutes (given no course or speed changes).

**Show Name**
This check box is used to toggle the display of user-assigned target names.

**Show Number**

If this box is checked, the radar-assigned target ID number will be displayed next to each target.

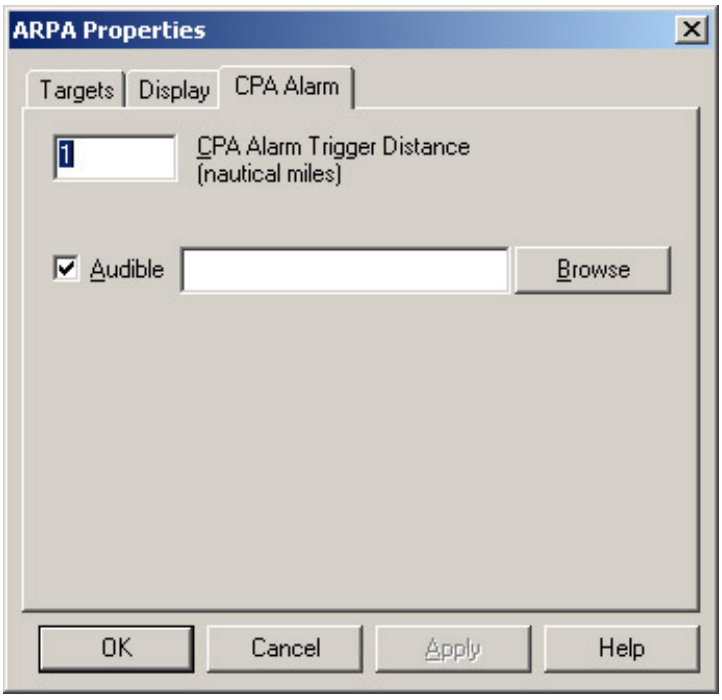
**Tracks**

**Hours and Minutes**

These controls determine how many Hours and Minutes of the recorded ARPA target data is displayed. The maximum setting is 48 hours and 59 minutes.

**Thickness**

The Thickness box is used to control the displayed width of the ARPA target tracks. The Thickness can be specified in pixels, feet, meters or yards, Enter the desired Thickness number and then select the desired units in the units selection box.




**CPA Alarm Trigger Distance (nautical miles)**

The CPA Alarm Trigger Distance box is used to enter the distance (in nautical miles) for smallest acceptable Closest Point of Approach before an alarm is triggered. Whenever an ARPA target has a CPA distance less than this value, two dotted rings will be drawn around the target to indicate an alarm condition.

**Audible**
If the Audible alarm box is checked, an audible warning will be played to indicate that an ARPA target is within the set CPA (Closet Point of Approach) distance. See CPA Alarm Trigger Distance above. Please note that a sound card and speakers are required to hear the audible warning.

**Browse**
The Browse button is used to select the sound file (.WAV format) to play as the audible alarm. The currently selected sound file is displayed in the box above the Browse button.

### Own Ship Menu

Set the display properties of the vessel icon and re-center the vessel in the chart view window.

### Own Ship, Show Vessel

Selecting the "Show Vessel" option centers the vessel in the chart view window. If you have been looking ahead using the "Follow Cursor" mode, then this option will bring the chart view back to the vessel location. You can also press the "Home" key on the keyboard.

### Own Ship, Show Range Rings

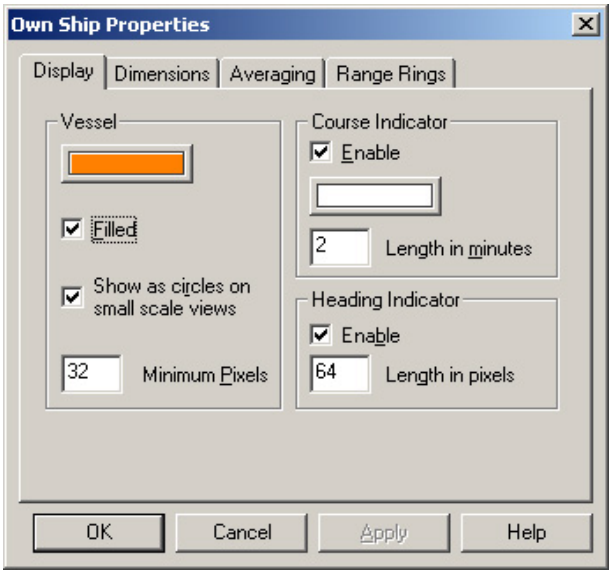
Selecting the "Show Range Rings" puts range rings around the vessel. Range rings can be set as fixed, variable or both in the "Own Ship Properties" window.

### Own Ship, Trip Statistics

Use this option to view the Trip Statistics dialog. This includes total time, moving time, stopped time, average and maximum speeds, and distance traveled.

### Own Ship, Properties

Set the vessel icon display options such as color, size, vessel icon, and position predictor lines.



## Own Ship, Display

•**Filled**—The vessel can be either transparent or filled. It is easier to see the filled icon, but for gear retrieval it may be more useful to just view the vessel outline. For example, when traveling over a mark you will be able to see the mark under the vessel if the "Filled" box is not checked.

•**Vessel color**: Click on the color bar to change vessel color.

• **"Show as circles on small scale views"**—When this box is checked, the vessel icon becomes two circles with small scale chart views. When it is unchecked, the vessel icon remains a 'vessel' shape.

•**Minimum Pixels**—This setting limits the minimum display size for the vessel icon. If the "true scale" vessel icon is smaller than the minimum pixel size, and the previous option is checked, then the vessel is drawn as two concentric circles. If unchecked the vessel will be drawn in the minimum pixel size.

**Course Indicator:**

Clicking on the "Enable" box will draw a course line indicator from the vessel. The course indicator shows Course Over Ground.

- •**Course Line Color**—Click on Color bar to bring up a color map. Select a color and click on "OK" to complete the color selection.
- •**Length in minutes**—The Course Indicator display length can be set in minutes of time. The line is based on current speed. The default is 5 minutes.

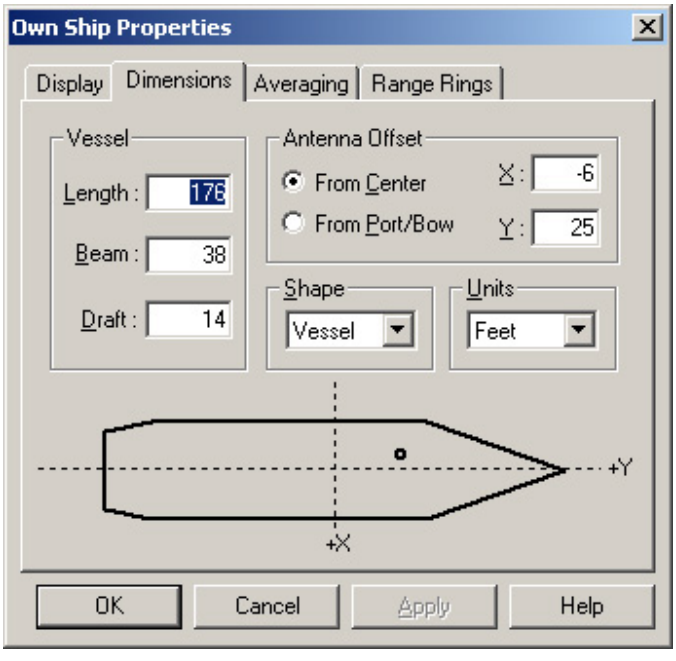
**Heading Indicator:**

Click on the "Heading Indicator, Enable" box to display a heading line.

- •**Length in pixels**—The Heading Indicator is set to a fixed length in pixels. Enter the number in the box. The default number is 100 pixels. The heading indicator only shows bow direction when gyro input is available.

## Own Ship Dimensions

Click on the "Dimensions" tab to set the vessel dimensions.



Type in the vessel length, beam and draft in the appropriate boxes. Select the desired units from the units box—Feet, Yards, or Meters.

- **Antenna Offset--** Enter an X and Y offset to correct the vessel symbol position if the GPS/Loran antenna is located a significant distance from the center of the vessel. Normally the center of the vessel indicator symbol is taken to be the actual position from the GPS or LORAN. If the GPS or LORAN antenna is 100 feet forward and 25 feet to port of vessel center, you would enter -25 for X and 100 for Y to correct the position.

### Own Ship Averaging

The data input for Course, Heading and Speed can be averaged to smooth out fluctuations in the GPS input. Check the appropriate Enable Box(s) to switch on the averaging feature. The range for the slider bar can be set to the last 2-10 input sentences.

### Own Ship, Range Rings

Enable or disable range rings by clicking on the "Enable Box." Selecting "Variable" displays range rings according to the chart view range. You can choose a fixed range or select both from this page.

## VIEW MENU

This menu sets the chart view options. These include Contour Properties, Layer control, and contour view options. When the active chart view is a raster chart, there will be a different set of options related to raster chart properties. See the section on the raster chart module near the end of this manual.

### View, Contour Properties

Selecting "Contours" brings up a menu that allows you to view contours colored by depth or to highlight a range or to set visibility options. This menu can also be brought up by right-clicking in the chart view window.

### Color Range

This first page sets the color range for the current chart view window. The options are:

- **Normal**—This setting displays the contours in the default color—usually blue, depending on the color settings in the view layer menu.

- **Color Range**—This setting displays the contours in colors based on the colors you assigned in the "Elevation Color Bar." If the bar is not displayed on the screen, click on the "Toolbar" menu and select "Elevation Colors." Editing the Elevation Color Bar is described in the "Toolbar" chapter. There is also a toolbar button that toggles the colors on and off.

### Highlight

There are three 'Modes' of color highlights:

- **None**—When selected, the contours will be displayed in the default color.
- **In Range**—When selected, type in the Minimum Depth and the Maximum Depth in the Range in Fathoms box (or feet or meters, depending on the units selected in the "Units" menu). GLOBE will highlight the soundings as well as the contours. This may be especially useful when plotting on navigation charts. For example, selecting a minimum depth of 21 fathoms and a maximum depth of 24 fathoms will highlight the soundings between the 20 and 25 fathom curves.
- **Out of Range**—This is the reverse of the "In Range" view. For example, if you select 380 fathoms as the minimum depth and 400 fathoms as the maximum depth, all of the contours except those between those two values will be highlighted.

The Highlight color can be selected from the "Highlight" button in the Color box. Select the color from the map and click "OK" to confirm the selection.

The "From Chart" button selects the minimum and maximum values from the contour lines displayed on current chart window.

### Visibility

Set the visibility of the contours from this page. For example, you can set the program to show only a certain range of contours; you can also set the program to exclude the display of a range of contours. The "Visibility" page has three "Modes".

- **Show All**—Selecting this option will display all of the contours available on the chart window.
- **Show Range**—Select a range of contours to view. For example, selecting 380 fathoms as the minimum depth and 400 fathoms as the maximum depth will display just the contours between those two values. Selecting a minimum depth of 21 fathoms and a maximum depth of 24 fathoms will display only the soundings between the 20 and 25 fathom curves.
- **Hide Range**—When selected, this option will hide the selected range of contours. It will display the contours outside the "Hide" range.

The "From Chart" button selects the minimum and maximum values from the contour lines displayed on current chart window.

### View, Layers

GLOBE is designed so that you can set up the chart window colors to suit your own preferences. The window has two sections: "Visibility" and "Colors." The "Visibility" section sets the type of layers that will be displayed—for example, shipping lanes, cable areas, contours. The "Color" section sets the colors for each of the layers. For example, you can set the landfill layer to yellow, or the shipping lanes to green.

There are three "Visibility" settings that cannot be edited—Base, Standard and All. There are also three "Color" settings that cannot be edited. By selecting the "New" button you can create your own displays. Each of these layer names is taken from data derived from a navigation chart or a bathymetric map.

The "Base" settings contain the very minimum in display options.

The "Standard" settings contain basic navigation.

The "All" setting contains all of the layers available.

The layers consist of the following display options:

| Feature Type | Base | Standard | All |
|---|---|---|---|
| Anchorage Area | | X | X |
| Background | X | X | X |
| Bottom Characteristics | | | X |
| Bridges | X | X | X |
| Buildings | | X | X |
| Cable Area-Submarine Cable | | X | X |
| Chart boundaries | | X | X |
| Coastline | X | X | X |
| Danger Area | X | X | X |
| Depth Contours | X | X | X |
| Depth Soundings | | X | X |
| Dumping Ground | | X | X |
| Exclusive Economic Zone (EEZ) | | | X |
| General Lines | | | X |
| General Text | | | X |
| Glacier | | | X |
| Graticule | | X | X |
| Hazard Text | | X | X |
| Hazards | X | X | X |
| Intertidal Area | X | X | X |
| Landmarks | | X | X |
| Light, Buoy, and Beacon Characteristics | | X | X |
| Lights, Buoys and Beacons | X | X | X |
| Place Names | | | X |
| Political Boundaries | | | X |
| Port Symbols | X | X | X |
| Prohibited Area | X | X | X |
| Restricted Area | X | X | X |
| Roads | | | X |
| Sea Lion Closures | | | X |

| | | | |
|---|---|---|---|
| Sea Lion Rookeries | | | X |
| Territorial Sea and Contiguous Zone | | | X |
| Three Geographical Mile Line | | | X |
| Three Nautical Mile Line | | | X |
| Traffic Routing Systems | X | X | X |

**Layers, New**

**Visibility**—If you want to create your own visibility and color options, click on the "New" button. Enter the new layer visibility name. Then click on the "Edit" button.

A list of features appears with a check box to the left. Click in the box for each of the features you want to be visible on the chart screen. The "Standard" features will be already checked. Select or deselect the features by clicking in the box. Click on "OK" to close the visibility window. Click "OK" or "Apply" to see your custom visibility settings.

**Colors**—There is a default setting for the feature colors. There are also day and night settings. Adjust the color settings for your custom screen by creating a new color scheme. Click on "New" then enter a new colors scheme name, possibly the same name as the new Feature Visibility name. Then click on "Edit". The feature set that was selected in the visibility window will appear. To change the color of a feature click on the feature. Click on the "Change Color" button. Select a new color an press the "OK" button. Change any other layers, then press "OK" to close the "Colors" window. Click "OK" or "Apply" to see your color changes on the screen.

Remove any color setting name by clicking on the name and then clicking on the "Delete" button. Rename any of the color schemes by pressing "Rename" and entering a new name. Duplicate any setting by clicking on "Duplicate". That will copy the settings from the duplicated color name. Then rename the setting and edit the new file to suit your needs.

Click on the "Apply" button to preview the settings. Click on "OK" to close the window.

**View, Chart Boundaries**

This function toggles on and off the display of both navigation and bathymetric chart borders. You can also see chart boundaries that are not installed on your computer, but that are in our chart library.

**Installed Bathymetric**—showing only those bathymetric maps that are installed on the hard drive

**Installed Navigation**—showing only those navigation charts that are installed on the hard drive.

**Uninstalled Bathymetric**—showing the listing of available bathymetric maps not installed in your computer.

**Uninstalled Navigation**—showing the listing of available navigation charts not installed on your computer.

**Show Chart Numbers—**displays the chart number in the lower left hand corner of the chart boundary.

### View, Contours

The "Contours" option sets the source of the contour lines. The feet and fathom options are usually found on US navigation charts. The meters option is found on bathymetric maps and the navigation charts of most other countries. Clicking on the contours bar will also show the same options.

### Convert to Fathoms (Meters, Feet)

To convert bathymetric meters or feet to fathoms click on "Convert to Fathoms." This will change all depth values on the screen to fathoms. This option displays the chart soundings.

The next selections set the chart view to follow the vessel, cursor, or you can soundings from the chart in the depth unit selected in the "Units" dialog.

### View, Properties

This window provides information on the active chart view window. Changing any of the values in the dialog box will affect the active chart window. The "View" box shows the latitude/longitude position at the center of the active chart. The distance from the center of the active chart to the closest chart window edge is shown in the "Range" box. The Range value is determined by the units selected in the "Units" option in the "Options" menu.

Entering new Latitude and Longitude values will change the chart view window accordingly. Entering a new range value will change the chart view window range to the new setting.

## OPTIONS MENU

The Options menu contains several basic setup tools as well as set up tools for RoxAnn, Quester Tangent and American Pioneer.

### Options, Units

Use this menu to select the units displayed in GLOBE. Set Depth, Distance, Speed, Temperature and Latitude/Longitude characteristics.

- Depth can be displayed in feet, fathoms or meters.
- Distance can be displayed in nautical miles, statute miles or kilometers.
- Speed can be displayed in knots, miles per hour, or kilometers per hour.

•Temperature can be displayed in Fahrenheit or Celsius.

•Latitude/Longitude coordinates can be displayed in seconds or in decimal minutes.

Select the options you need and click the “OK” button.

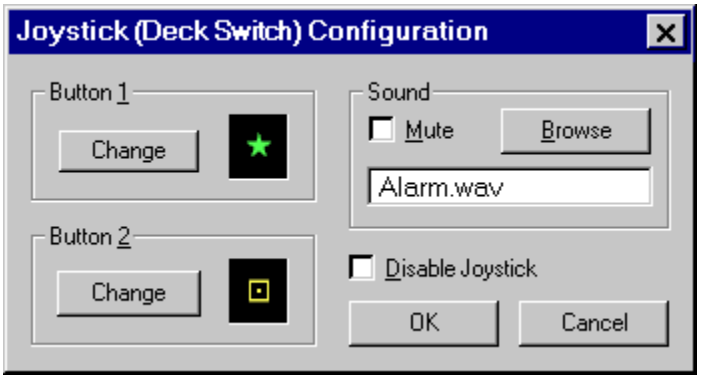
### Magnetic Variance

Corrections for local magnetic variance can be entered from this menu. From the compass rose (or local knowledge) determine whether the variance is east or west and click on the appropriate item. Click in the box above “Variance in Degrees” and type in the number of degrees.

Double clicking will highlight the number in the box. Highlight the number and type in the new number. You may also click to the right of the number and backspace until the previous number is gone. Then type in the new number and select “OK.”

If you select “From GPS”, the calculations are done automatically from the position reported from the GPS receiver.

### Joystick (Deck Switch) Configuration




The deck switch is used to create a mark at the vessel's position while working on deck, away from the computer. The deck switch has two buttons which can be individually configured to create any mark symbol and color combination. You also have the option to have the computer sound an audible confirmation when a new mark is made. The deck switch uses the joystick port on the computer. A two button joystick can also be used.

Button 1: Change--Click the Change button to select a new color and symbol for the mark symbol created when button 1 is pressed on the deck switch.

Button 2: Change--Click the Change button to select a new color and symbol for the mark symbol created when button 2 is pressed on the deck switch.

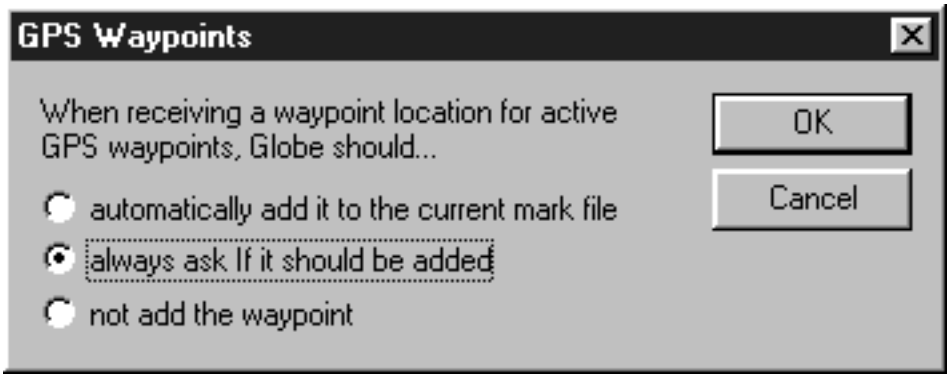
Sound: Browse--Click the Browse button to select a new sound (.WAV) file to play as the audible confirmation when a new mark is made with the deck switch.

Mute--Check the Mute box if you do not wish to hear an audible confirmation when a new mark is made with the deck switch.

Disable Joystick : Placing a check mark in the Disable Joystick box will disable the deck switch.

**GPS Waypoints**

Some GPS/LORAN receivers output waypoints in Lat/Long coordinates that GLOBE can store in the mark file. If you select "GPS Waypoints," a dialog box will ask you whether you want the marks to be added automatically, whether you should be asked each time, or whether you do not want to add the waypoint.




Use this dialog to tell GLOBE what to do with waypoint data from the GPS/LORAN. GLOBE can

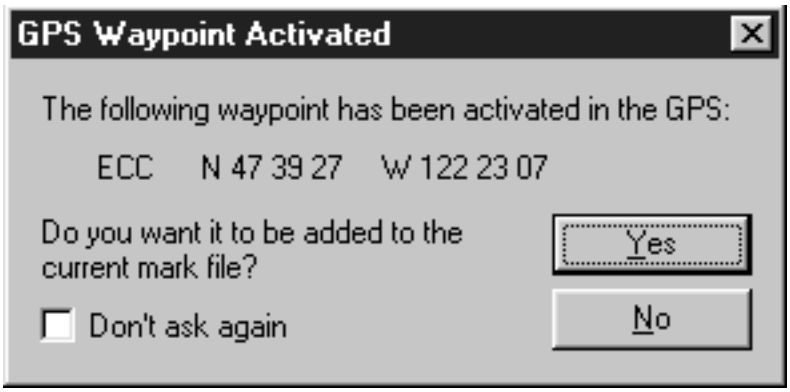
⊙ automatically add it to the current mark file

When this option is selected GLOBE will automatically add all incoming waypoint data to the current mark file using the current mark symbol and color. The mark symbol and color are set in the Mark Defaults dialog.

⊙ always ask if it should be added

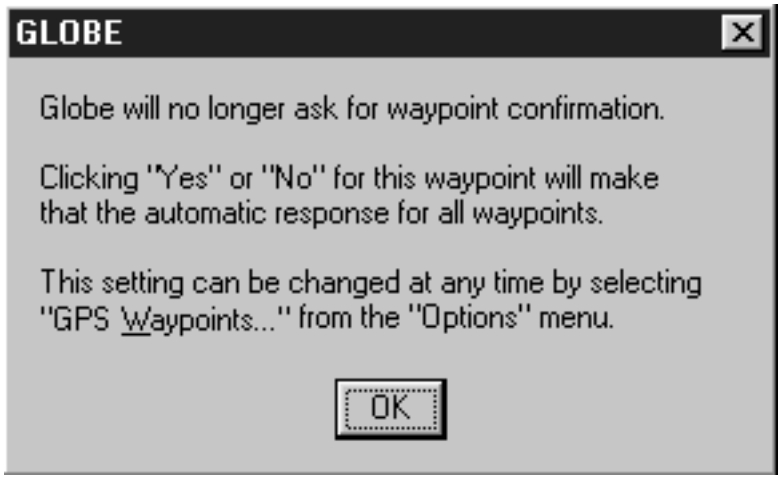
Use this option if you want GLOBE to ask, using the GPS Waypoint Activated dialog, if you want the GPS/LORAN waypoint added to the current mark file.

If you have selected the "always ask if it should be added" option in the "GPS Waypoints" dialog, then this dialog will appear when the new waypoint data is received from the GPS/LORAN:




¤ not add the waypoint

This option will ignore all incoming GPS/LORAN waypoint information.
If you check the “Don’t ask again” box, then the following dialog will appear:

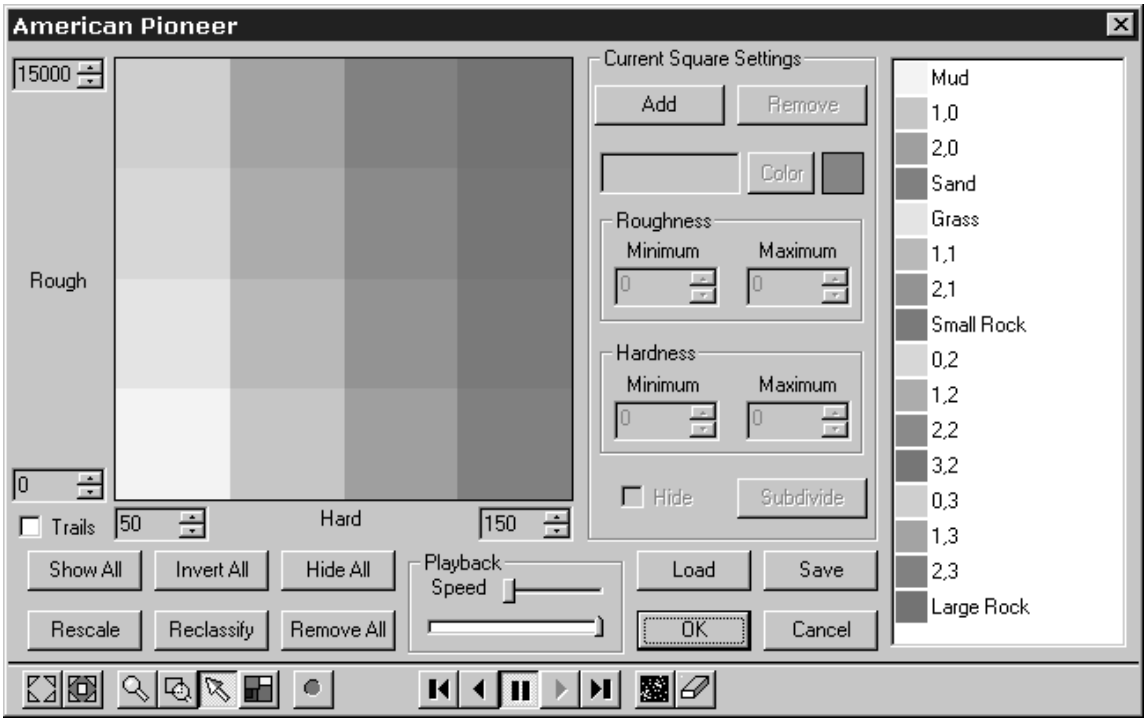



GLOBE supports the following NMEA 0183 sentences for incoming waypoint data: BWC, BWR, RMB, and WPL.

### Seabed Classification

The three seabed classification systems supported by GLOBE are QTC View from Quester Tangent in British Columbia, RoxAnn from Marine Microsystems in Scotland and American Pioneer from Seattle. These systems are designed to analyze wave characteristics from the transducer. A cable from the classification manufacturer’s hardware is connected to an RS-232 port on the GLOBE computer.

### American Pioneer



### Squares View

The squares window displays the current American Pioneer calibration settings. When the American Pioneer hardware is functioning, it returns two values to the computer. The two values are called "Rough" and "Hard". "Rough" which represents bottom roughness is displayed on the vertical axis of the squares window. "Hard", shown on the horizontal axis of the squares window, corresponds to bottom hardness. The combination of "Rough" and "Hard", which lies somewhere in the squares window, determines the bottom classification.

The current bottom type is displayed as cross hairs. Past bottom types are displayed as white dots if the Trails option is checked.

The playback controls at the bottom of the American Pioneer calibration window can be used to re-play stored American Pioneer data files.

### "Rough" (Minimum value on vertical axis)

Use the up/down arrows at the bottom of the "Rough" (vertical) axis to adjust the minimum "Rough" value that you wish to view in the squares view. This only affects the display in the American Pioneer calibration window. It does not eliminate a "Rough" range from being used for bottom classification.

### "Rough" (Maximum value on vertical axis)

Use the up/down arrows at the top of the "Rough" (vertical) axis to adjust the maximum "Rough" value that you wish to view in the squares view. This only affects the display in the American Pioneer calibration window. It does not eliminate a "Rough" range from being used for bottom classification.

### "Hard" (Minimum value on horizontal axis)

Use the up/down arrows at the left of the "Hard" (horizontal) axis to adjust the minimum "Hard" value that you wish to view in the squares view. This only affects the display in the American Pioneer calibration window. It does not eliminate an "Hard" range from being used for bottom classification.

### "Hard" (Maximum value on horizontal axis)

Use the up/down arrows at the right of the "Hard" (horizontal) axis to adjust the maximum "Hard" value that you wish to view in the squares view. This only affects the display in the American Pioneer calibration window. It does not eliminate an "Hard" range from being used for bottom classification.

### Trails

Check the Trails box if you wish to view live or re-played American Pioneer bottom data in the squares view. The current bottom type is displayed as cross hairs. Past bottom types are displayed as white dots. This function is useful to view the range of data when using the Playback track file function.

**Current Square Settings**

**Add**

Click on the Add button to add a new "bottom type" square to the list of existing squares. A new white square named "New Square" will be inserted at the top of the list. Use the Color button to change the color and/or type in a new name in the Name box.

**Remove**

Removes the currently selected square from the list. Select the "bottom type" that you wish to remove and then click on the Remove button.

**Name**

Displays the name of the currently selected square. To change the name, click in the name box and type in the new name.

**Color Button**

Press this button to change the color of the currently selected square.

**"Roughness" Minimum**

Use the up/down arrows at the right of the "Roughness" Minimum value box to adjust the minimum "Roughness" value (lower edge) for the currently selected square.

**"Roughness" Maximum**

Use the up/down arrows at the right of the "Roughness" Maximum value box to adjust the maximum "Roughness" value (upper edge) for the currently selected square.

**"Hardness" Minimum**

Use the up/down arrows at the right of the "Hardness" Minimum value box to adjust the minimum "Hardness" value (left edge) for the currently selected square.

**"Hardness" Maximum**

Use the up/down arrows at the right of the "Hardness" Maximum value box to adjust the maximum "Hardness" value (right edge) for the currently selected square.

**Hide**

Check this box to hide the currently selected square. An unfilled square will replace the filled square in the squares view. Bottom types that fall into a hidden square will not be drawn in the chart view window.

**Subdivide**

Splits the current square into 16 smaller squares. The smaller squares are automatically colored and named based on their position.

### Squares List

All of the current bottom types (squares) are displayed, with their associated color in the Squares List. The list is display is order of priority. If there are two overlapping squares in the Squares View, the one nearer the top of the Squares List will have priority. Meaning, it will be used to determine the bottom classification. It will also be drawn on top in the Squares View. You can change the priority of a square by selecting it in the Squares List and dragging it to a different position.

### General Buttons

#### Show All

Clicking on the Show All button will make all squares visible. To make a single hidden square visible, select it in the Squares View or Squares List and then un-check the Hide Box.

#### Invert All

Clicking on the Invert All button will toggle the display of all squares. Squares that were hidden with be made visible and vice versa.

#### Hide All

Clicking on the Hide All button will hide all squares. To hide a single square, select it in the Squares View or Squares List and then check the Hide Box.

#### Rescale

The Rescale button will re-scale the currently defined squares to the current "Rough", "Hard" range in the squares window.

#### Reclassify

After American Pioneer calibration changes, you must reclassify track files containing American Pioneer data. Click the Reclassify button to "reclassify" the currently open track file using the current American Pioneer calibration settings. Old track files containing American Pioneer data will be displayed using the calibration settings in use at the time that the American Pioneer data was captured until you reclassify the track file.

#### Remove All

Clicking on the Remove All button will erase all of the currently defined squares. Use the Save button to save the existing calibration settings; then use the Remove All button to start a new American Pioneer calibration setting.

#### Load

Click the Load button to open an existing American Pioneer calibration settings file that was previously saved using the Save button.

Opening an existing calibration setting will erase the existing settings. Click on the Save button to save the existing settings before loading an existing one.

**Save**

Click the save button to save the current American Pioneer calibration settings to a file. You will be asked to specify a name for the settings file.

**OK**

Click the OK button to save the current American Pioneer calibration settings to the currently open settings file and close the American Pioneer Calibration window.

**Cancel**

To close the American Pioneer Calibration window without saving any changes, click on the Cancel button.

**Playback**

You can use the Playback function to re-play the American Pioneer data stored in a track file. Simply setup the Squares view as desired, click the Move Beginning button or set the Playback Position, and then click the Play Forward button.

**Playback Speed**

Use the cursor to adjust the track file play back speed. Move the slider to the left to decrease the play back speed. Move it to the right to increase the speed.

**Playback Position**

The indicator below the Playback Speed slider indicates the current play back position, in the currently open track file, while playing it.

**Play Reverse**

Click the Play Reverse button to play the currently open track file starting at the Playback Position in reverse.

**Move Beginning**

Click the Move Beginning button to set the Playback Position to the beginning of the track file.

**Pause**

To temporarily stop the playback of the currently open track file, click the Pause button.

**Play Forward**

Click the Play Forward button to play the currently open track file starting at the Playback Position.

**Move End**

Click the Move End button to set the Playback Position to the end of the track file.

**Show All Pings**

Click the Show All Pings button to quickly (without playback) search through the open track file and display all of the pings in the Squares View.

**Erase Pings**

To redraw the Squares View without drawing the pings, click on the Erase Pings button.

## Squares View Tools

**Zoom To Extents**

Click the Zoom To Extents button to set the horizontal ("Hard") and vertical ("Rough") axis of the Squares View to their maximum values (0-4095).

**Zoom To Squares**

Click the Zoom To Squares button to set the horizontal ("Hard") and vertical ("Rough") axis of the Squares View to display all of the current defined squares.

**Zoom In/Out**

Clicking the Zoom In/Out button will set the cursor to "zoom" mode. In this mode, pressing the left mouse/trackball button will zoom in on the cursors location in the Squares View. Pressing the right mouse/trackball button will zoom out.

**Zoom To Window**

Clicking the Zoom To Window button will set the cursor to "zoom window" mode. In this mode, you can zoom to a window of any size. Place the cursor at the top left corner of the desired window, press and hold the left mouse/trackball button, drag the mouse/trackball to the lower right corner of the window and then release the left mouse/trackball button.

**Select Square**

Click the Select Square button to set the cursor to "select square" mode. In this mode, you can select a square for editing by clicking on it in the Squares View.

**Resize Square**

Click the Resize Square button to set the cursor to "resize square" mode. First, click the Select Square button and select a square in the Squares View and then click the Resize Square button. Now you can drag a window in Squares View to change the size, shape and location of the selected square. To drag a window, place the cursor at the top left corner of the desired window, press and hold the left mouse/trackball button, drag the mouse/trackball to the lower right corner of the window and then release the left mouse/trackball button.

**Record**

Click the Record button to toggle "record" mode. In "record" mode, the selected square is automatically adjusted in size to contain all of the pings. The pings can come from live American Pioneer data or from playback.

## Quester Tangent Properties

To set the properties of QTC View click on “Options”. Then move the cursor to “Quester Tangent. Move the cursor to “Properties” and click with the left trackball button. A window will appear with a list of 32 possible bottom type names.

### Bottom Type List

To edit the name or color of any bottom type on the list select the bottom type by clicking on it. There are 32 types of characteristics that are numbered. Select a number to provide a descriptive name, to toggle its visibility, or to change colors.

### Name

The number of the selected bottom type appears in the window. To change the name click in the box and backspace until the window is clear. (You can also double click in the box to highlight the name.) Type in a new name.

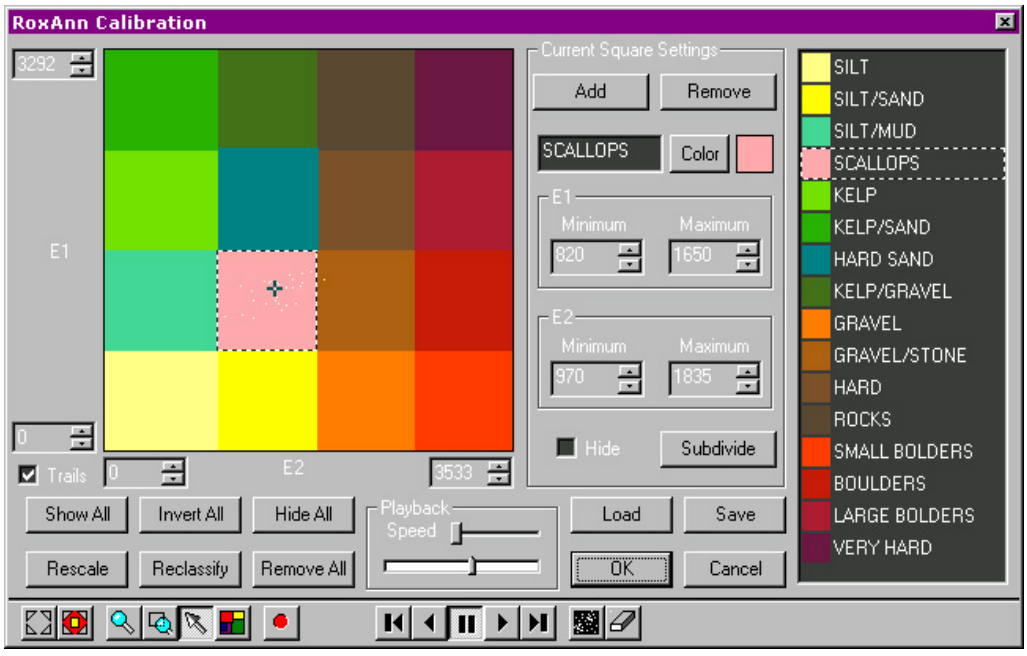
### Visible

Check this box to make the currently selected bottom type visible when displaying a track line with Quester Tangent coloring.

### Color Button

Click the “Color” button to change the color of the currently selected bottom type. Click on “OK” to complete the changes.

### RoxAnn Calibration




The RoxAnn Calibration Window displays the current calibration settings. If the RoxAnn device is installed and operational, each ping is displayed as a cross hair in the Square View Window. The square in which the ping lies determines the bottom type classification. The track playback controls at the bottom of the dialog window can also be used to display the pings from pre-recorded RoxAnn plots. The window can also be used to select and resize individual squares.

•**E1 Minimum**—The E1 minimum value indicates the voltage (in millivolts) at the bottom of the Squares View Window. Changing these values will adjust the Squares View to reflect the new view range.

•**E1 Maximum**—The E1 Maximum value indicates the voltage at the top of the Squares View Window.

•**E2 Minimum**—The E2 Minimum value indicates the voltage at the bottom left of the Squares Window.

•**E2 Maximum**—The E2 Maximum indicates the voltage at the right of the Squares Window.

### Current RoxAnn Square Settings

•**Add**—Add a new calibration square to the list of existing squares. The new square has the name "New Square" and is inserted at the top of the list in white. Change the name by clicking in the name box and typing in a new name. Change the color by selecting the Color button and then selecting a color from the color map. Click "OK" to confirm the selection.

•**Remove**—Remove the selected item from the list by clicking on the "Remove" button. You will be asked to confirm the deletion.

•**Name Box**—This box shows the name of the currently selected item in the list. To change the name delete the old name by using the backspace key or by double clicking in the box to select the previous name. Type in the new name.

•**Color Button**—Click on this button to change the color of the currently selected square. Select a new color and click the "OK" button to change the color. **E1 Minimum Box**—This number shows the voltage in millivolts of the lower edge of the currently selected square.

•**E1 Maximum Box**—This number shows the voltage in millivolts of the top edge of the currently selected square.

•**E2 Minimum Box**—This number shows the voltage in millivolts of the left side of the currently selected square.

•**E2 Maximum Box**—This number shows the voltage in millivolts of the right side of the currently selected square.

•**Hide**—Click this box to hide the current square. When hidden, the square is drawn in the squares view window as a non-filled rectangle. Also, track points that fall within a hidden square are not displayed in the chart window.

### RoxAnn Squares List Box

This box displays all calibration squares with their colors. By selecting a square in the list, the current square settings are updated that reflect the newly selected square. If there are two squares with overlapping areas, a ping that falls in that area will be classified as the type nearest the top of the list. Squares at the top of the list are also drawn in the Squares View Window on top of lower squares. To adjust the priority of a square drag it from its current position in the list to its

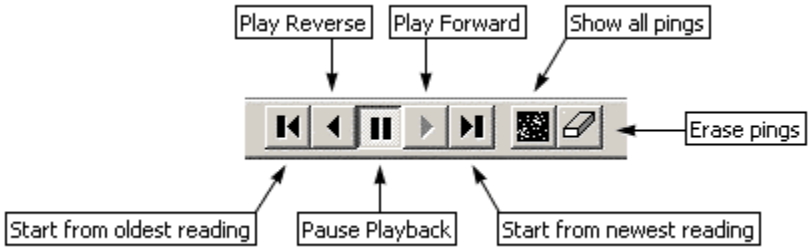
desired position. For instance, if a square is low on the list, and you would like it to have priority over all the other squares, drag it to the top of the list.

### RoxAnn General Buttons

- **Show All**—This button sets all of the squares to visible.
- **Invert All**—This button toggles the visibility of the squares.
- **Hide All**—This button hides all of the squares.
- **Rescale**—This button rescales the squares to fit the view.
- **Reclassify**—This button reads the entire track and reclassifies each point using the current calibration settings. Tracks must be reclassified in order for changes to show up in the chart view track display.
- **Remove All**—Remove all of the squares from the square list.
- **Load**—Use this button to load a predefined RoxAnn Settings file (.rox).
- **Save**—Use this button to save a RoxAnn Settings file (.rox).
- **OK**—Saves and exits using the changes to the calibration.
- **Cancel**—Exits without saving any changes.

### RoxAnn Track Playback

- **Playback Speed**—Place the cursor on the bar and drag the slider to the right to play back the data faster.
- **Playback Position**—This slider indicates the position in the track of the currently displayed ping. The position slider can also be moved to select another section of track to play back.



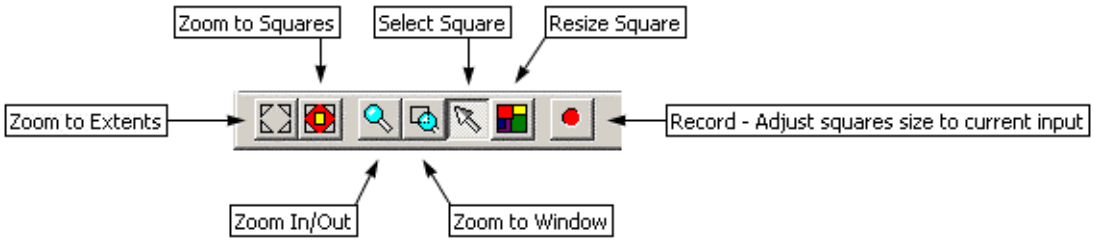

- **Play Reverse**—Start playing the track from the current position to the beginning of the track.
- **Go To Beginning**—Move the current playback position to the beginning of the track recording.
- **Pause**—Pause the playback of the track.
- **Play Forward**—Start playing the track from the current position to the end of the track.

•**Go To End**—Move the current playback position to the end of the track recording.

•**Show Pings**—Reads and displays all of the pings in a track file.

•**Erase Pings**—Erases all pings from the Squares View Window.

**Squares View Tools**




•**Zoom To Extents**—Show the full possible range of E1 and E2 values (0-4095 millivolts).

•**Zoom To Squares**—Adjust Square View Window so that all squares fit into the window.

•**Zoom In/Out**—When this tool is selected, click into the Squares View Window with the left mouse button to zoom in, or click with the right button to zoom out.

•**Zoom To Window**—Drag a box in the Squares View Window to zoom into.

•**Select Square**—Set a square by clicking in the Squares View Window.

•**Resize Square**—Drag a box in the Square View Window to resize the currently selected square.

•**Record**—While the Record button is pressed in, the currently selected square is adjusted to contain all the pings coming in form either the RoxAnn or a track file being played back.

**RoxAnn Properties**

Set the System to Shallow or Deep.

Set the Frequency to 7.68 kHz or 76.8 kHz

Set the Speed of Sound (m/s) bearing in mind that several factors affect the speed of sound through water, such as temperature and salinity.

**WINDOW MENU**

This menu is most useful for determining how many chart view windows are open. Opening more than four windows will seriously degrade the program's performance. The check list at the bottom of the menu shows the open chart windows. To view them all, tile the charts by selecting either "Tile Horizontal" or "Tile Vertical". You can also view the open chart windows by selecting "Cascade".

## HELP MENU

There is an online-styled Help file in GLOBE. Click on "Index" to open the Help menu. The Help file works much like an internet search engine. When the cursor changes to a hand, it means that more information can be found by clicking on the object or the text. Also, clicking on highlighted text will move you to that selection.

The text that reads "Top of Page" will return you to the top of the current page. Pressing the "Menu" button brings you back to the top of the Help file.

Selecting "About GLOBE" displays the copyright and the date and version number of the installed GLOBE system.

There is a copy of the End-User License Agreement as well.

## ADD-ON MODULES

Several new features in GLOBE are sold as Add-On Modules. At this time they include Steller Sea Lion Rookery Areas and our raster chart module. An integrated Tide & Current Module is available as is the 3-D Module. The Terrain Builder Module is also available now. These modules require an alphanumeric code to be activated. Call ECC for more information. For modules such as the 3-D and the Terrain Builder, a fast processor and at least 256 M RAM is highly recommended.

### Rookeries

The Steller Seal Lion protected areas are being constantly re-evaluated. ECC is revising those protected areas as the changes occur. The module requires a four-digit code in order to be installed. Call your marine electronics dealer or ECC for more information.

### Raster Charts

GLOBE has been updated to read the raster charts using the BSB/NOAA chart format and the Canadian NDI charts. Most of the plotting functions that are found in GLOBE are also available using the raster chart module.

The raster chart module is an add-on feature that requires a 16 character code before it can be installed. The code will be assigned when the module is purchased.

If you have sufficient hard drive space on your computer, you can load the raster charts from the CD-ROM to your hard drive. That will make the chart loading much faster than reading them from the CD-ROM.

To select a chart from a chart list select the "File" option from the menu. Then select the "Chart List" option. Click on the "Raster" tab to display the list of charts.

### Raster Charts View Menu

There are several different view options when using raster charts rather than the vector charts.

**Larger Scale Chart—**If there is a larger scale chart (smaller area) available, this option will change the chart to the next larger scale chart. Pressing the "*" key (on the numeric keypad or Shift 8) will also change the chart scale.

**Smaller Scale Chart—**If there is a smaller scale chart (larger area) available, this option will change the chart to the next smaller scale chart. Pressing the "/" key (on the numeric keypad or on the keyboard) will also change the chart scale.

**Auto-Select Charts—**Use this option to let GLOBE select the next chart. GLOBE will select a chart based on the current chart view range. The chart closest to a 1:1 display will be selected.

**Chart Brightness—**Raster chart views can be made lighter or darker using this option. Move the slider to the right to brighten the chart view or move it to the left to make the chart view darker. The default value is 80%.

## Tide & Current Module

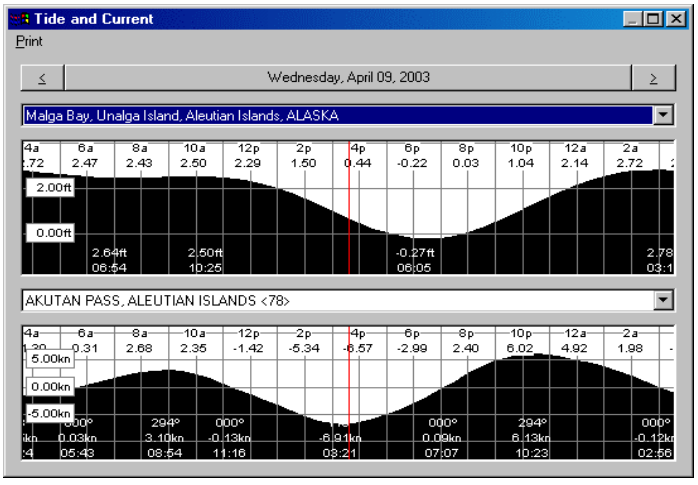
ECC-GLOBE® now contains a fully integrated Tide and Current (T&C) Module. The T&C module is an optional upgrade to the standard GLOBE software. Please note that anyone with ECC-GLOBE v1.91 or later can enable the T&C Module by simply entering a 16-digit Product Code. Please see your marine electronics dealers for ECC-GLOBE® upgrades.

There are 3 main components that make up the integrated T&C Module in GLOBE. They are: the Tide/Current instrument in the Instrument Panel, the on-chart display of tide gauges and current arrows, and a pop-up T&C window for viewing tide and current graphs.

The T&C instrument will appear at the top of the Instrument Panel when the T&C Module is enabled. The T&C instrument contains two boxes. The upper box contains a tide graph showing the tide at the tide station closest to the vessels current position. The lower box contains a current graph at the tide station closest to the vessels current position. The current tide and current values are shown to the left of the graphs. See an image of the T&C Instrument below:


**Tide and Current Instrument (left)**

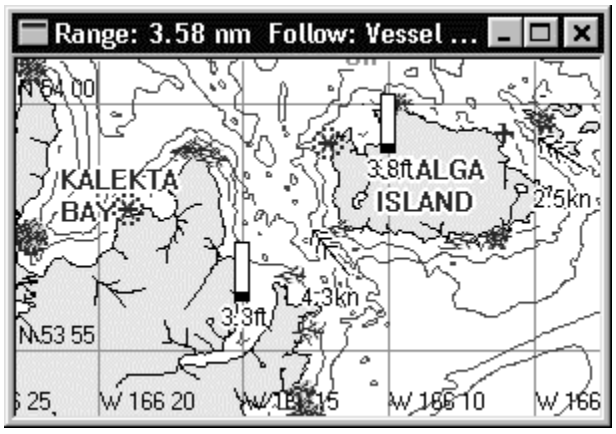
**Tide and Current Window (below)**



If you double-left-click on the T&C instrument, GLOBE will display a larger T&C window. By default, this window shows the tide and current at the closest stations to the vessel at the computer's time and date. The upper graph shows tide and the lower graph shows current. Left-click on the down arrow button at the right end of the Tide Station selection box to select from a list of the 20 closest stations. Use the Current Station selection box to select from a list of the 20 closest current stations. Left-click on the left arrow button (back 24 hours), the right arrow button (forward 24 hours) or the dated button (select from calendar) in the middle to select a new date. You can also drag the graphs (hold left trackball button and move the trackball) to change the displayed time/date. Left-click on the X button in the upper right corner of the T&C window or press ESC on the keyboard to close the T&C window.

You can also open the T&C window to show the T&C stations closest to the cursors position by right-clicking on the chart view window with the Center at Cursor (arrow) tool and then selecting the Tide at Cursor option in the context menu. This will open the T&C window to display the tide and current near the cursors position at the computers time and date. The same options described in the previous paragraph are available in this T&C window.

The on-chart display of tide gauges and current arrows can be enabled by right-clicking on the chart view window using the Center at Cursor (arrow) tool and then selecting the Tide Stations… option. Select from the Tide, Current or Both options to display the tide gauges, current arrows or both. Select the None option to disable the display of both the tide gauges and current arrows. See a chart image showing tide gauges and current arrows below:



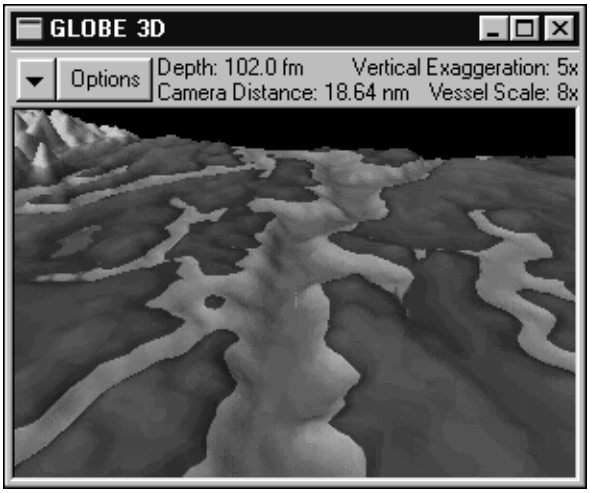

**Tide Gauges and Current Arrows**

**Tide & Current Module Summary:**

- Double-left-click on the T&C Instrument to open the T&C Window for stations near the vessels position
- Right-click on the chart window using the Center at Cursor (arrow) tool and select the Tide Stations… option to toggle the display of the on-chart tide gauges and current arrows (only displayed when zoomed in)

- Right-click on the chart window using the Center at Cursor (arrow) tool and select the Tide at Cursor option to display the T&C window for stations near the cursors position
- In the T&C window, use the tide/current station selection boxes to change stations
- In the T&C window, use the left/right arrow or date buttons to change the displayed date

**3-D Module**




## GLOBE 3D Window

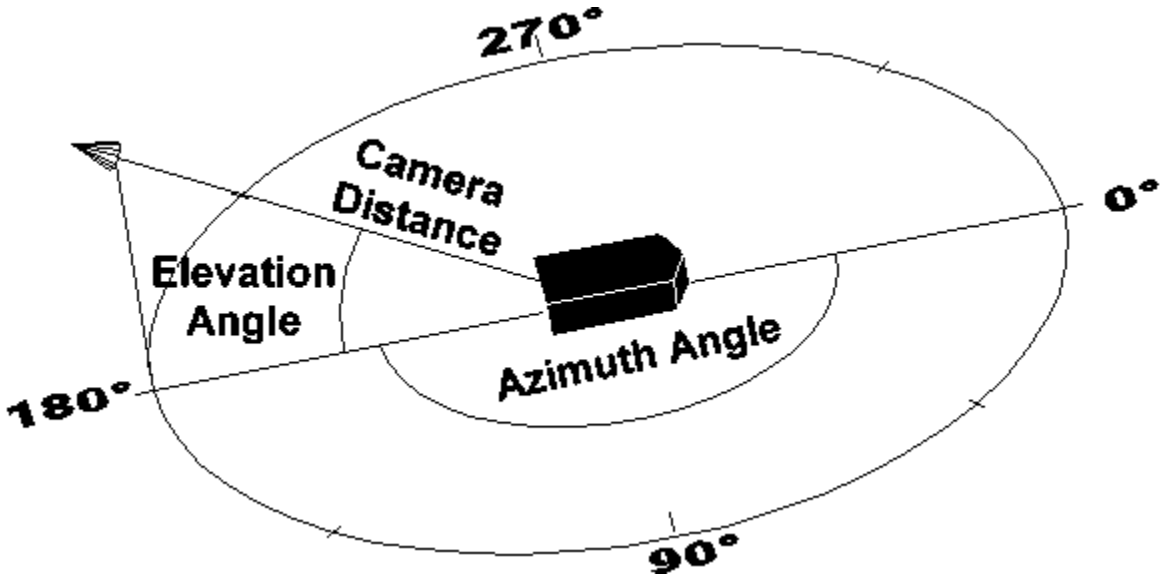
The 3D image in GLOBE is displayed as if you were looking from a camera at some physical location, towards the center of the vessel. The camera can be moved around the vessel. It can be rotated both vertically (elevation angle) and horizontally (azimuth angle) as well as being moved closer or farther away (camera distance). Moving the camera closer or farther from the vessel is equivalent to zooming in and out. Please see the image below for an illustration depicting the azimuth angle, elevation angle and camera distance.

Numerical values can be entered in the 3-D Options dialog or the following keyboard keys can be used to move the camera.

The 3-D surface is colored by using the current color scheme displayed in the Elevation Color Bar. In the Elevation Color Bar positive elevations are above sea level, zero is sea level and negative values are below sea level. Custom color schemes can be created, edited, saved and loaded using the Elevation Color Bar Context Menu.

**GLOBE 3-D Camera Position**

- Azimuth Angle - Camera rotation in the horizontal plane around the vessel (Range 0-359°)
- Elevation Angle - Camera rotation in the vertical plane around the vessel (Range 0-90°)
- Camera Distance - Distance from camera to vessel

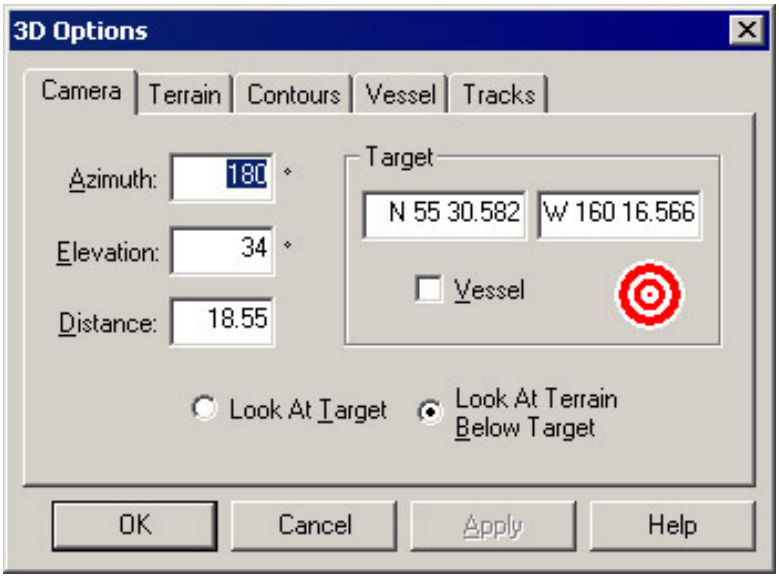



### 3D Keyboard Shortcuts

Make sure that the 3D window is the active window when using the keyboard shortcut keys by clicking on its title bar.

| KEY | FUNCTION |
|---|---|
| PAGE UP | Zoom In (decrease camera distance) |
| PAGE DOWN | Zoom Out (increase camera distance) |
| ARROW UP | Raise Camera |
| ARROW DOWN | Lower Camera |
| RIGHT ARROW | Rotate Camera to the Right (decrease azimuth angle) |
| LEFT ARROW | Rotate Camera to the Left (increase azimuth angle) |
| * | Increase Vertical Exaggeration |
| / | Decrease Vertical Exaggeration |
| CTRL+* | Increase Vessel Size Exaggeration |
| CTRL+/ | Decrease Vessel Size Exaggeration |
| CTRL+(Up Arrow) | Place Camera in Front of Vessel |
| CTRL+(Down Arrow) | Place Camera Behind the Vessel |
| CTRL+(Left Arrow) | Place Camera on the Port Side of the Vessel |
| CTRL+(Right Arrow) | Place Camera on the Starboard Side of the Vessel |
| HOME | Place Camera at the Default Position<br>(camera distance, elevation angle and azimuth angle) |
| CTRL+HOME | Save the Current Camera Position as the Default Position |
| TAB | Toggle the display of the 3D Text Information Bar (at top of 3D window) |
| Right Click (mouse) | Display the 3D Context menu |
| Space Bar | Toggle between vessel as target and terrain below vessel as target |

## 3-D Options




### Target

Drag the target over the area on the 2-D chart screen where you want to view a 3-D image.

### Camera

### Azimuth (angle)

Use the Azimuth box to enter a numerical value for the Azimuth angle. The Azimuth angle is the horizontal angle between a line projected forward from the center of the vessel and the camera. Please refer to the 3D help for an illustration showing the Azimuth angle.

| AZIMUTH ANGLE | LOOKING AT |
|---|---|
| 0° | Bow |
| 90° | Starboard Side |
| 180° | Stern |
| 270° | Port Side |

### Elevation (angle)

Enter a numerical value in the Elevation box to set the Camera Elevation angle. The Elevation angle is the angle between the surface of the sea and the camera at the vessel. The Elevation angle can range from -90 degrees through zero degrees (camera at sea level) to 90 degrees (looking straight down at the vessel). Refer to the 3D help for an illustration showing the Elevation angle.

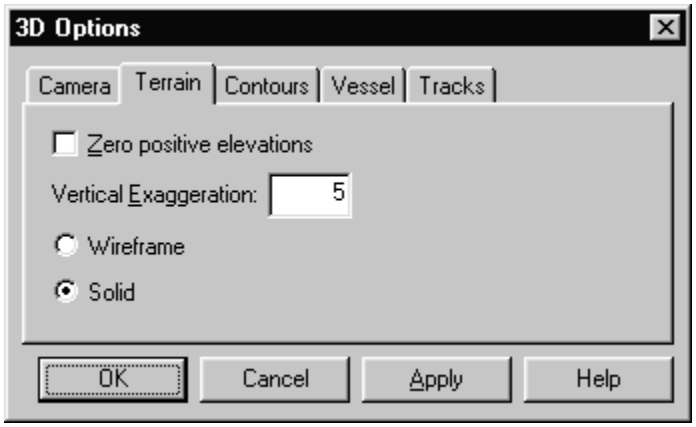
### (Camera) Distance

Enter a numerical value in the Distance box to set the distance from the center of the vessel to the camera. Increasing the Camera Distance is the same as

zooming out and decreasing the Camera Distance is the same as zooming in. Refer to the 3D help for an illustration showing the Camera Distance.

**Look at Vessel**
Select the Look at Vessel option to have the camera look directly at the center of the vessel. Also see the Look at Terrain Below Vessel option described below. Press the Spacebar to toggle “Look at Terrain Below Vessel.”

**Look at Terrain Below Vessel**
Select the Look at Terrain Below Vessel option to have the camera look at the sea floor directly below the vessel. Also see the Look at Vessel option described above. Press the Spacebar to toggle “Look at Vessel.”

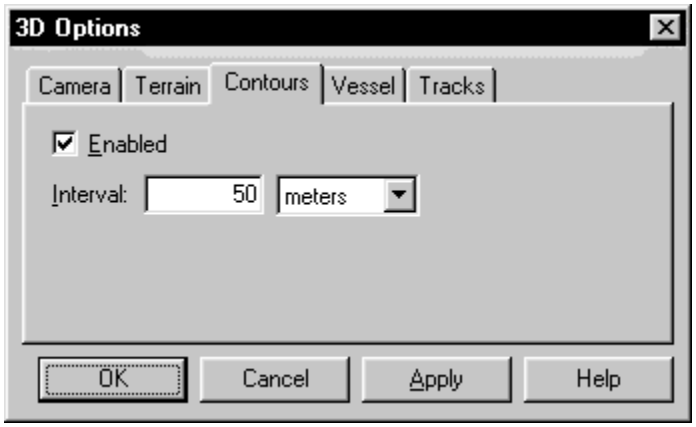



**Terrain**
**Zero positive elevations**
Select this option to hide all of the positive (land) elevations and only show the sub-sea level elevations.

**Vertical Exaggeration**
Enter a numerical value to set the Vertical Exaggeration of the displayed 3D data. Use this feature to make canyons, hills and valleys more obvious. To show the vertical data in true scale to the horizontal data, enter a Vertical Exaggeration value of 1 (no exaggeration).

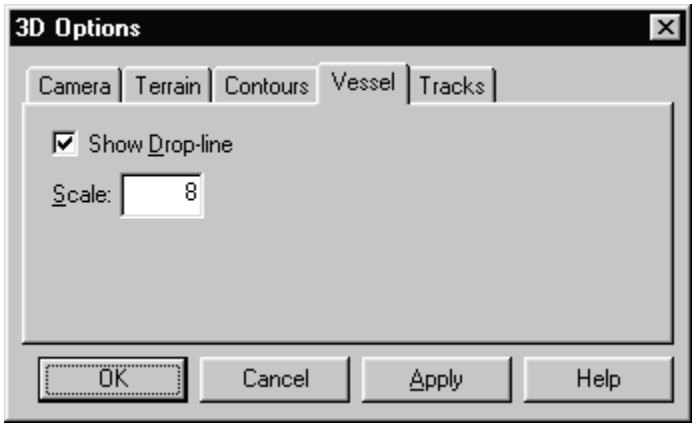
**Wireframe**
Select this option to display the 3D terrain as a wireframe rather than a solid surface.

**Solid**
Select this option to display the 3D terrain as a solid surface rather than a wireframe.



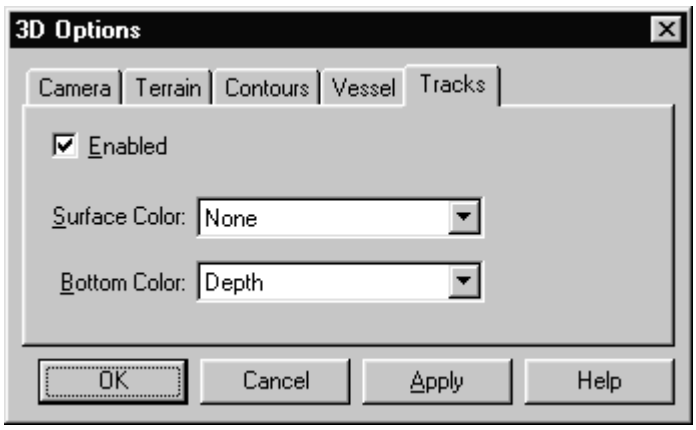

**Contours**
**Enabled**
Select the "Enabled" option to toggle the display of the depth contours. The depth contours are displayed at the user entered depth Intervals (set below).

**Interval**
Enter a numerical value for the spacing between the depth contours displayed in the 3D image. After entering a numerical value for the Interval, select the desired interval units from the units selection list.




**Vessel**
**Show Drop-line**
Check the Show Drop-line box to toggle the display of the own ship vessel drop-line. The drop-line is a vertical line drawn from the center of the vessel to the 3D surface (ocean floor). It shows the exact location of the vessel over the seabed.

**Scale**
Enter a numerical value in the "Scale" box to scale the own ship and ARPA vessel symbols as well as the own ship tracks. Increasing the scale value to increase the size of the vessel symbols and tracks. Decrease the scale value to shrink them.




**Tracks**
**Enabled**
The "Enabled" box toggles the display of the own ship track lines in the 3D image.

**Surface Color**
Use the Surface Color selection box to select the data source to use when coloring the own ship vessel tracks drawn at sea level. The following data source selections are available (please note that special hardware may be required for some of the data sources):

| DATA SOURCE | DATA FROM |
|---|---|
| None | N/A |
| Color | User Set (color set by user for the original track line) |
| Depth | Depth Sounder |
| Temperature (surface) | Depth Sounder with Temperature sensor |
| American Pioneer | American Pioneer Fishscope |
| Roxann | Roxann Bottom Discrimination Hardware |
| Quester Tangent | Quester Tangent Bottom Discrimination Hardware |

**Bottom Color**
Use the Surface Color selection box to select the data source to use when coloring the own ship vessel tracks drawn on the 3D surface (sea bed). The following data source selections are available (please note that special hardware may be required for some of the data sources):

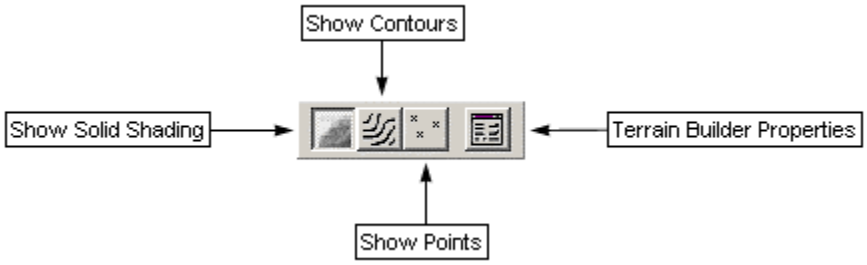
| DATA SOURCE | DATA FROM |
|---|---|
| None | N/A |
| Color | User Set (color set by user for the original track line) |
| Depth | Depth Sounder |
| Temperature (surface) | Depth Sounder with Temperature sensor |
| American Pioneer | American Pioneer Fishscope |
| RoxAnn | Roxann Bottom Discrimination Hardware |
| Quester Tangent | Quester Tangent Bottom Discrimination Hardware |

## Terrain Builder

Terrain Builder creates contours and seafloor mapping using track files (with depth values recorded), mark files and survey data. Use live input from your sounder to update chart bathymetry. **NOTE**: It is not a good idea to try to map the entire ocean with this module. Your computer isn't big enough or fast enough. Terrain Builder is designed to improve bathymetry in local areas such as fishing grounds or the entrances to harbors or rivers where there are few surveys or out of date surveys.

Because of the number of calculations and the quality of the graphic display, it is highly recommended that the computer hardware be new with a large hard drive, a fast processor, a minimum of 512 MB RAM, and a video card with at least 36 MB of memory. Otherwise, the computer will run very slowly.

When Terrain Builder is installed, there are four buttons added to the Toolbar:



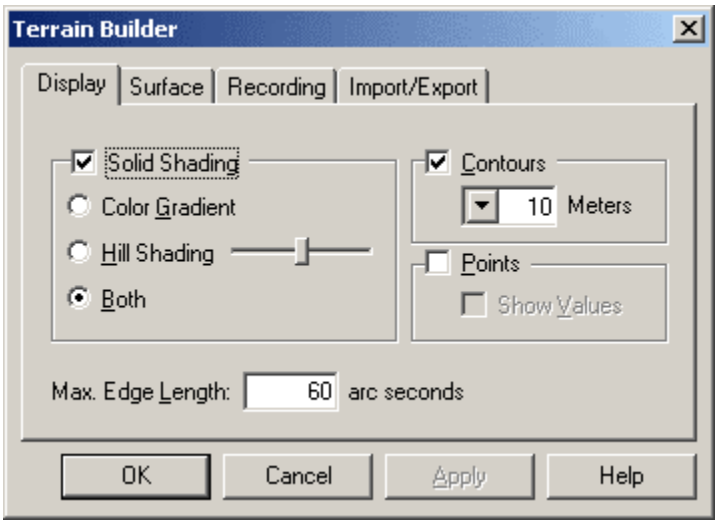

**Show Solid Shading:** Toggle the solid shading display. Display settings can be modified in the Terrain Builder Properties window.

**Show Contours:** Toggle contour display. These contours are built from incoming sounder data and/or from stored track files. If depth values have been stored with marks, GLOBE can also import that data.

**Show Points:** Toggle the display of point data taken from incoming sounder data and/or from stored track files. If depth values have been stored with marks, GLOBE can also import that data.

## Terrain Builder Properties

There are four set-up windows that determine display properties and allow importing and exporting of data.




## Display Page

### Solid Shading

Toggles the solid-shaded display of the surface. This checkbox corresponds to the Show Solid Shading toolbar button.

### Color Gradient

Displays the surface with smooth-shaded colors from the Elevation Color Bar.

### Hill Shading

Displays shaded gray triangles with lighting from the upper-left of the screen. The slider on the right controls the amount of contrast.

### Both

Displays the surface using both a color gradient and hill shading.

### Contours

Toggles the display of contours generated from the surface. This checkbox corresponds to the Show Contours toolbar button.
The combo-box below sets the contour interval. Major contours are drawn at ten times this interval. The contour interval always uses the users depth unit setting. When solid shading is also on, contours are black. Without solid shading, contours are colored according to the Elevation Color Bar.

### Points

Toggles the display of data points in the surface. This checkbox corresponds to the Show Points toolbar button.
When solid shading is also on, points are black. Without solid shading, points are colored according to the Elevation Color Bar.

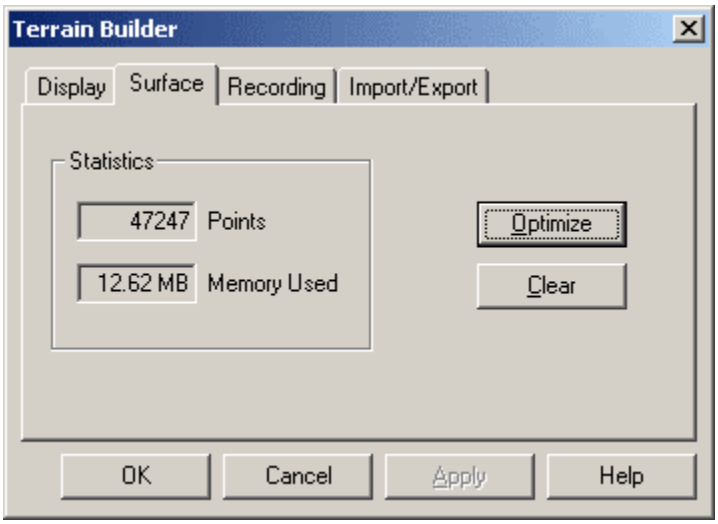
### Show Values

Toggles the display of the depth values of points in the surface. Values are always displayed according to the users depth unit setting.

### Max. Edge Length

This setting determines which triangles in the surface are used in the display. Triangles with an edge longer than this value are never shaded or used to create contours. This value should be set high enough to display useful data in the area that you're working but low enough to prevent display in areas where the data is too sparse to be useful.

## Surface Page




### Statistics

### Points

This indicates the number of points currently in the surface.

### Memory Used

This shows the amount of memory currently used to store the surface.

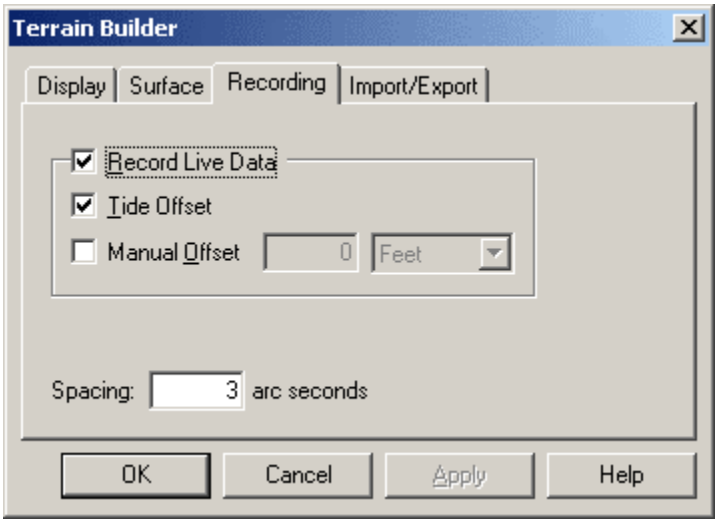
### Optimize

This button analyses the surface and removes points which are likely to be invalid (isolated points which create sharp angles in the surface) as well as points which do not contribute much to the shape of the surface (points which are nearly coplanar with their neighbors). Points are removed only if their nearest neighbor is within about 500ft.

### Clear

This button removes ALL data from the surface.

## Recording Page




### Record Live Data

Toggles the recording of live data from a GPS and depth sounder.

### Tide Offset

When this is checked, live data is compensated for tide offset using the tide height of the closest station to the vessel (regardless of the distance from that station). The Tide & Current Module must be installed for this to work.

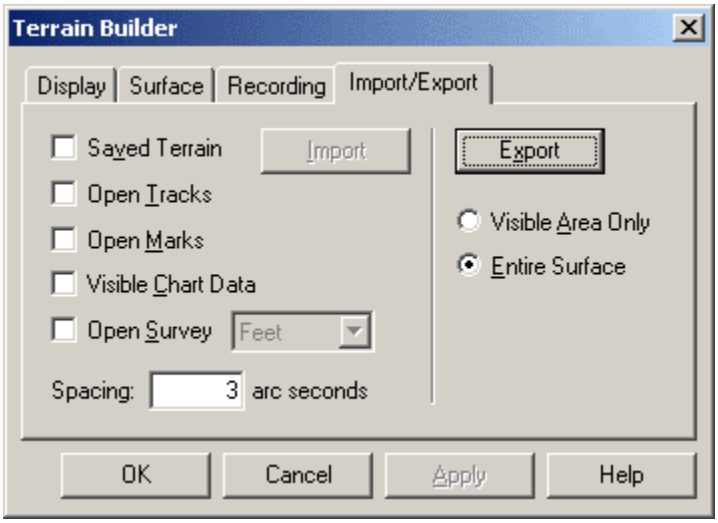
### Manual Offset

When this is checked, the value to the right is subtracted from live data before it is added to the surface.

### Spacing

This setting is used to "average" data and to reduce the number of points in the surface by forcing new points onto a grid that has this value as the grid spacing. When a new point is recorded at the same location as an existing point, the existing point is just moved to the average of the two values (no point is added to the surface).
If this value is set to 0, the positions of new points are not modified.

## Import/Export Page




### Import

Select the types of data that you wish to import and then press the "Import" button. Pressing the ESC key will abort an import in progress.

### Saved Terrain

This includes "TRN" files that have been exported from Terrain Builder. If this is checked, you will be prompted to select which files to import after pressing the "Import" button.

### Open Tracks

This includes all currently open track files.

### Open Marks

This includes all currently open mark files.

### Visible Chart Data

This includes all visible depth data from the active vector chart view (including coastline and intertidal areas).

### Open Survey

This will import the currently open survey file. Depths in the survey are assumed to be in the unit selected to the right.

### Spacing

This setting is used to "average" data and to reduce the number of points in the surface by forcing new points onto a grid that has this value as the grid spacing. When a new point is imported at the same location as an existing point, the existing point is just moved to the average of the two values (no point is added to the surface).
If this value is set to 0, the positions of new points are not modified.

**Export**

Exports data into a "TRN" file which can be imported at a later time with the "Saved Terrain" option.

**Visible Area Only**

Only points visible in the active chart view will be exported.

**Entire Surface**

The entire surface will be exported.

ECC-GLOBE TECHNICAL SECTION

**GLOBE Hardware Specifications**

| | |
|---|---|
| Operating System: | Windows 98 SE or 2000 *** |
| Processor | Pentium or AMD 1.5 gHz or better (Dual processor recommended for Terrain Builder) |
| Memory | 512 Megabytes or better (One Gigabyte required for Terrain Builder) |
| Hard Drive | 20.0 Gigabyte, minimum |
| Floppy Disk | 1.44 Megabyte, 3 ½** |
| CD Rom | 52 Speed internal * |
| Back Up | Zip Drive or CDR/CDRW CD burner |
| Video Card | 32 Megabytes |
| Monitor | 15” or larger |
| Ports | 2 Serial / 1 Parallel |

* Globe will operate with a slower or different device.
** Not necessary but highly recommended.
*** Windows XP Professional will run ECC-GLOBE®. However, due to possible problems with reinstalling Windows XP at sea we do not recommend using it at this time.

Possible Upgrades in order of most performance gained:

1. Faster Processor
2. More Memory
3. Name brand 32 Megabyte or better AGP Video Card
4. Larger Hard Drive

## ECC-GLOBE INSTALLATION

The ECC-GLOBE installation CD has an automatic start feature. All you should have to do is start the computer, wait for Microsoft Windows to load, and then insert the ECC-GLOBE installation CD. After a short delay you should get the Welcome dialog window. Simply follow the instructions and GLOBE will be installed.

If the ECC-GLOBE installation CD does not automatically start, use the following instructions to start the installation:

(Note: You should now have the **ECC-GLOBE installation CD** in your CD-ROM Drive)

1. *Double-click* on the **My Computer** icon on the Windows Desktop. This should open the **My Computer** window.
2. *Double-click* on the icon for your **CD-ROM drive**. The icon should be named **ECC_GLOBE**.
3. You should now have window on the Desktop that lists the files and folders on the **ECC-GLOBE installation CD**. *Double-click* on the icon titled **Setup** or **Setup.exe.** The **Setup** or **Setup.exe** icon should have the following icon symbol:


4. You should now have the Welcome dialog window displayed. Simply follow the instructions and GLOBE will be installed.

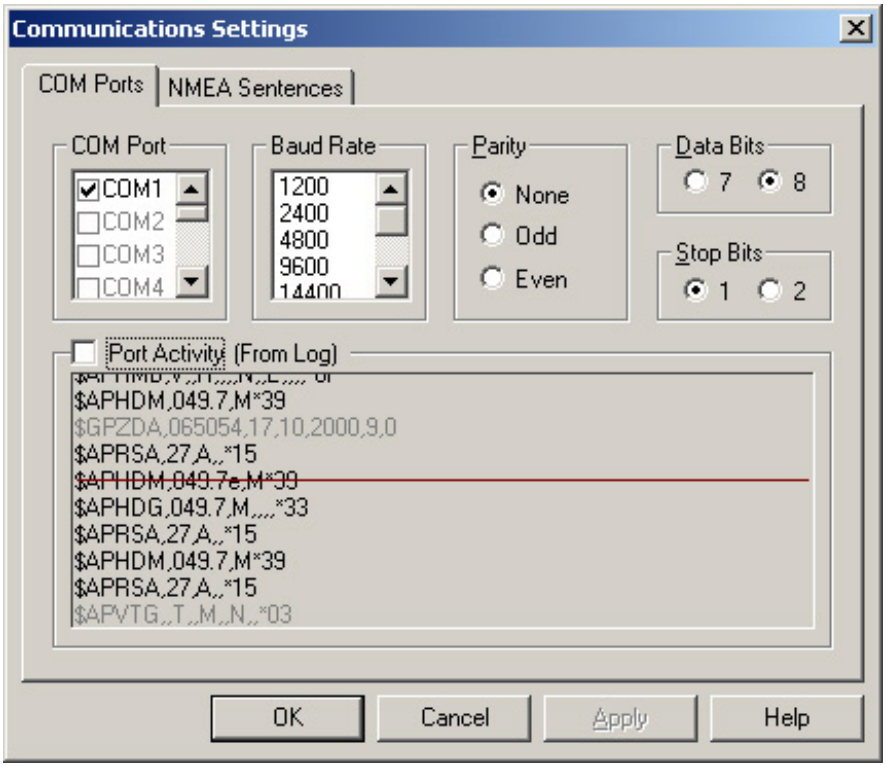
Pressing the **F1** key when **GLOBE** is running will display the built-in help. You will need an Internet browser to display the help. If you do not already have a browser installed, you can install Microsoft Internet Explorer from the **MSIE_3** folder on the **ECC-GLOBE installation CD.**

If there are any problems or questions, please contact ECC.

## ECC GLOBE TECHNICAL REFERENCE

There are two setup windows in the ECC GLOBE software. They are the Communications Settings window and the NMEA (National Marine Electronics Association) Sentences window. The Communications Settings window is used to enable or disable the input of NMEA data on any COM port. It is also used to configure the operating parameters of a COM port and to view the raw NMEA data coming into any port. The Communications Settings window is shown below.

To display the Communications Settings select “Options” then “Communications Settings from the menu. Or you can simultaneously press CTRL+SHIFT+C.




### Com Port section

The Com Port section is used to enable or disable a particular COM port. Place a check mark in the box to the left of the COM ports that you want to be enabled (Like COM1 above). COM ports that are grayed out are either not installed in the computer or are already in use. To view the data coming into a particular COM port click on the it’s port name. For example, Click on the word “COM1” (it should be highlighted like COM1 above) and you should now see the incoming data on COM1 in the Port Activity section of this window. (Note the Port Activity check box must be checked to see incoming data).

## Baud Rate, Parity, Data Bits, and Stop Bits sections

These sections are used to set the baud rate, parity, data bits and stop bits for a COM port. The standard settings for NMEA 0183 data (as shown above) are:

**Baud Rate: 4800 Parity: None Data Bits: 8 Stop Bits: 1**

To change the settings for a particular COM port, first click on the port name in the Com Port section and then click to change the desired setting.

## Port Activity section

The Communications Settings dialog is used to enable, disable and/or configure the communication (serial) ports for use in GLOBE. The settings for the port selected in the Com Port box are displayed in the Baud Rate, Parity, Data Bits, and Stop Bits boxes. Any NMEA 0183 device can be used on any port. Just enable the port that the NMEA device is connected to.

***COM Port***

Click in the check box to the left of the desired port to enable or disable it. Checked ports are enabled. You can display live data on a particular port by highlighting (selecting) it in the COM Port box. Also see Port Activity.

***Baud Rate***

Set the baud rate for the port selected in the Com Port box. The standard baud rate for NMEA 0183 devices is 4800.

***Parity***

Set the parity for the port selected in the Com Port box. The standard parity setting for NMEA 0183 devices is NONE.

***Data Bits***

Set the number of data bits for the port selected in the Com Port box. The standard number of data bits for NMEA 0183 devices is 8.

***Stop Bits***

Set the number of stop bits for the port selected in the Com Port box. The standard number of stop bits for NMEA 0183 devices is 1.

***Port Activity***

Check the Port Activity box to view live incoming data on the port selected the Com Port box.

The NMEA Sentences section of the Communications Settings dialog allows the user to select or de-select certain NMEA sentences for use in GLOBE. The dialog displays a list of all of the NMEA sentences that GLOBE currently supports. By default, GLOBE will attempt to use all of the incoming NMEA sentences listed in this dialog. To prevent GLOBE from using a particular sentence, simply un-check the box to the left of the unwanted sentence.

Please refer to the following table for more information on how GLOBE uses each NMEA sentence:

| NMEA Identifier | NMEA Description | GLOBE Usage |
|---|---|---|
| BWC | Bearing & Distance to Waypoint | Used to create marks based on incoming waypoint data, also see GPS Waypoints. |
| BWR | Bearing & Distance to Waypoint - Rhumb Line | Used to create marks based on incoming waypoint data, also see GPS Waypoints. |
| DBS | Depth Below Surface | GLOBE uses the Meters, feet, and fathoms fields in that order of preference. |
| DBT | Depth Below Transducer | GLOBE uses the Meters, feet, and fathoms fields in that order of preference. |
| DPT | Depth | Globe uses the Meters field only. No offset is applied. |
| GGA | Global Positioning System Fix Data | Used to obtain the vessel's geographic position, GPS quality indicator, and the Horizontal Dilution of Precision (HDOP). |
| GLL | Geographic Position - Latitude/Longitude | Used to obtain the vessel's geographic position and the validity of that position. |
| GSA | GNSS DOP & Active Satellites | Used to display the number of active GPS satellites and related information. |
| GSV | GNSS Satellites in View | Used to display the number of active GPS satellites. |
| HDG | Heading - Deviation & Variation | Vessel heading information. |
| HDM | Heading – Magnetic | Vessel heading information, magnetic only. |
| HDT | Heading - True | Vessel heading information, true only. |
| MTW | Water Temperature | Surface Water Temperature. |
| OSD | Own Ship Data | Vessel heading information, true only. |
| RMB | Recommended Minimum Navigation Information | Used to create marks based on incoming waypoint data, also see GPS Waypoints. Also used to obtain the vessel's geographic position. |
| RMC | Recommended Minimum Specific GNSS Data | Contains vessel geographic position, speed over ground, course over ground, time and date of fix. |
| TLL | Target Latitude & Longitude | Used for tracking ARPA targets |
| TTM | Tracked Target Message | Used for tracking ARPA targets |
| VHW | Water Speed & Heading | Contains vessel heading information. Water speed is not used. |
| VTG | Course Over Ground and Ground Speed | Contains vessel course and speed over ground. |
| WPL | Waypoint Location | Used to create marks based on incoming waypoint data, also see GPS Waypoints. |
| ZDA | Time & Date | GPS time and date. When available, GPS time and date will be used instead of computer time and date. |

## Cable Connections

| Computer | | Wire Color / Used for | GPS/LORAN* |
|---|---|---|---|
| 9-pin Serial | 25-pin Serial | | |
| Pin 2 | Pin 3 | Red / Positive Data | Transmit +, Data Hot, …. |
| Pin 5 | Pin 7 | Black / Signal Ground | Signal Ground, Data Cold …. |
| shield | shield | Silver / Cable Shield | Do not connect |

*Known exception - Some older Furuno Devices will need Transmit - (Transmit Cold) connected to the red wire instead of Transmit + (Transmit Hot). The signal ground wire is the same.

!!! Note - Do not connect the cable shield at the GPS/LORAN end. It is connected at the computer end.

## INSTALLING THE ECC-GLOBE SOFTWARE KEY

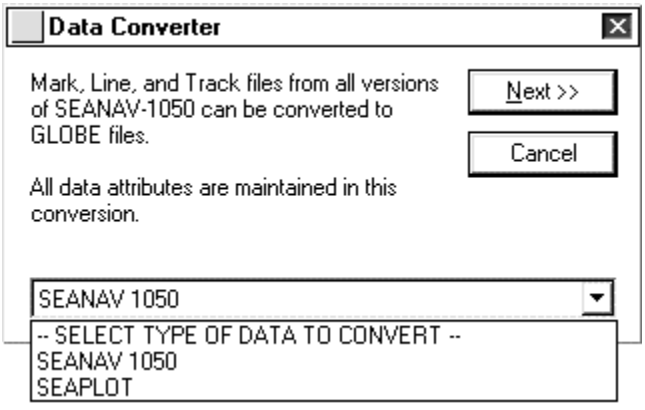
Connect the ECC-GLOBE software protection key (dongle) to the parallel port on the computer. Internal keys are no longer used.

## ECC-GLOBE DATA CONVERTER INSTRUCTIONS

The DataConverter is used to convert ECC SEANAV-1050 and/or SEAPLOT mark, line and track data files to ECC-GLOBE mark, line and track data files. The SEANAV and SEAPLOT data files should be copied onto the GLOBE computer if they are not already there. Please refer to the following table for information on the converted files:

| **FILES TO CONVERT (including usual source folder)** | | **CONVERTED FILES (including destination folder)** |
|---|---|---|
| | | |
| **ECC-SEANAV-1050** | **SEAPLOT** | **ECC-GLOBE** |
| | | |
| \ECC*.MRK (SEANAV mark files) | \Windows\Seaplot\SPMASTER.000 | \Globe\Marks*.MDB |
| \ECC*.LNE (SEANAV line files) | (the actual Seaplot data files are | \Globe\Lines*.MDB |
| \ECC*.TRK (SEANAV track files) | spmarks.*, splines.* & spwakes.*) | \Globe\Tracks*.MDB |

1. Click on the Start button in the lower left hand corner of the Windows desktop.
2. In the Start Menu, click on the Programs option
3. Under Programs, click on the Electronic Charts Company option
4. Under Utilities, click on the DataConverter option to run the DataConverter.




In the first screen, select the type of data that you are going to convert from the "—SELECT TYPE OF DATA TO CONVERT –" pull-down selection box. Choose either SEAPLOT or SEANAV 1050 by clicking on the down arrow button at the right end of the selection box and then clicking on the desired data type.

5. Click the Next button to open the file selection window.

6. Find the desired files. SEAPLOT files are usually found in the C:\Windows\Seaplot folder. SEANAV-1050 files are usually found in the C:\ECC folder. After you find the desired files:

Press CTRL and A to select all files in the listed

Press CTRL and click on a file to add it to the other selected (highlighted) files

Press SHIFT and click on a file to select it and all files in between it and another selected file

7. After the desired files are selected click the Open button to begin the conversion.

8. When the conversion is completed, a message will be displayed saying “X Files Converted” where X is the number of successfully converted files. Click OK to close the message window.

9. Click the Cancel button to close the DataConverter or select another data type to perform more conversions.

Please note that the converted files are automatically placed in the proper Globe data folders. Use the normal Mark Open, Line Open, and Track Open Globe functions to open the converted data files.

If there are any problems or questions, please contact ECC.

## INDEX