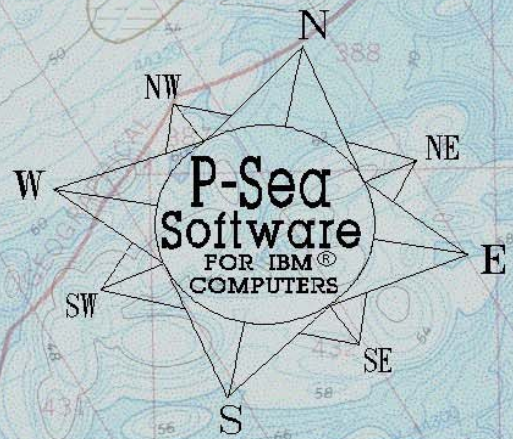


P-Sea™ WindPlotII

Version 7.2x

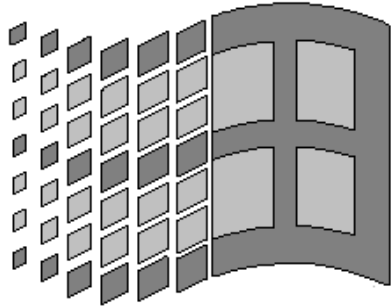
A full color Plotter for Windows®

Operators Manual



P-Sea Radar by KØDEN



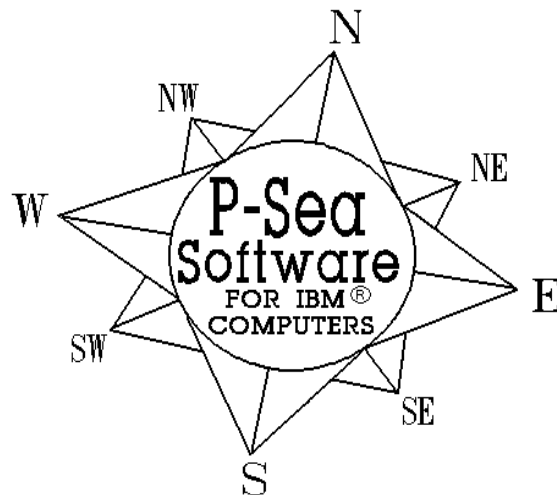


P-Sea™ WindPlotII/MAX

Version 7.2x

A full color 32 bit Plotter for Windows®

Operators Manual



A product of P-Sea Software Co.
P.O. Box 1390, Morro Bay, CA 93442 USA
Phone (805)772-4396, Fax(805)772-5253
Pub. Nov. 5, 2010 Mail: info@p-sea.com

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This manual was written by R. B. Ingalls of **TechnoScript** for P-Sea Software.

For information about **TechnoScript** call (916) 354-0481

For information about P-Sea Software call (805) 772-4396

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About This Manual

P-Sea WindPlot II and P-Sea WindPlot MAX are feature by feature the same except for P-Sea WindPlot MAX can display C-Map MAX charts and will here forth be referred to as P-Sea WindPlot in this manual. There are seven chapters in this manual. The first chapter, Getting Started, provides detailed instructions for the installation of the program on your computer and helps the beginner to get started using *P-Sea WindPlot*. The second chapter, General Information, explains how to use major features of the program. The third chapter, Installation, provides instructions for the installation of your computer on your boat and testing the integrated system. The fourth chapter goes into detail on setting up and usage of the Loran-C modes. The fifth chapter is on installation and operation of the P-Sea Radar Option. The sixth chapter it the Quick Reference, provides a reference in which you can quickly look up how to do specific tasks once you are familiar with the program. The seventh and last chapter it attempts to explain how WindPlot uses the computer's resources for the understanding of the usage of memory needed to properly maintain your data.

Getting Started

The first chapter Getting Started is designed to do just that – gets you started using *P-Sea WindPlot*. You are told how to:

- 1 Install the program.
- 2 Start the program.
- 3 Use the dead reckoning feature to provide a full function tutorial.
- 4 Practice using this tutorial feature to become proficient in using *P-Sea WindPlot*.
- 5 Get out of trouble.
- 6 Save your tracks and marks.
- 7 Quit the program.

General Information

Extensive research has shown that most people learn computer programs best by using them. *P-Sea WindPlot* provides a full function tutorial to accommodate this learning strategy. However, there are those who do read instructions and learn from them. For these users who may want a coherent description of the program, we provide Chapter 2. If this chapter is read from beginning to end, you will obtain a background of information about the program that will help you to understand it. This understanding may help your learning to use it effectively.

Installation

Our experience has shown that careful study of the Installation chapter is *mandatory*. The chapter covers the installation of your computer on your vessel and its integration into your navigation system. It deals with testing the system after connecting the wires. Systematic testing is often overlooked. This is a mistake that can result in lost fishing time and lost data. Follow the instructions given in this chapter carefully. You can then be confident of satisfactory performance and you will be saved the anguish and expense of phoning your dealer or the customer service line.

Quick Reference

The Quick Reference, Chapter 6, will help you use the program. It is a *decision table*. It makes it quick and easy to find out how to do a specific task. This information is also built into the on-line Help that is available on your computer screen by pressing **F1** or by clicking on **Help** in the **Menu Bar**.

If, after reading this manual and consulting the on-line help, you are still having difficulties, call your local dealer or the customer service number in the front of this manual.

Conventions Used in this Manual

Any time, within this manual, a reference is made to something that is printed on the computer screen it will be in *italics*. Anytime the manual refers to a button on the computer keyboard it will be in **bold**.

When you are instructed here to use the keyboard, the keys you are to press are printed in bold letters, *i.e.*, press **F1** (the F1 key) for help. If required to press the Enter key, you will be told to press **Enter**. When you see a key combination with a plus such as **Alt+Tab** or **Ctrl+F3**, it means, "hold down the key on the left side of the plus sign, then press the key on the right side of the plus sign and then release both keys." Thus, **Ctrl+F3** means to hold down the Ctrl key, press the F3 key, and then release both keys simultaneously.

It is beyond the scope of this manual to instruct you in the use of your computer or Windows®. It is assumed that you are familiar with DOS and with Microsoft™ Windows®. If this is not so, please consult the relevant manual or one of the many fine references available in bookstores and libraries.

You should understand the following conventions and terms:

- If an hourglass appears on your screen, you should wait until it disappears before attempting to do anything else.
 - The plus sign between keys (such as Shift+F1) means for you to hold down the first key (the Shift key) while pressing the second (the F1 key).
 - When you move the mouse, a graphic image called a mouse pointer moves on the screen. This pointer changes shape depending on its use in *P-Sea WindPlot*.
 - **Point** Move the mouse until the pointer rests on the item.
 - **Click** Point to an item on your screen, then press and quickly release the mouse button. Use the left mouse button unless the directions specify the right mouse button. Look for small yellow message boxes that come and go when you move the mouse around the screen. They tell what happens when you click at that point on the screen.

 - **Double-click** Click twice in rapid succession.
 - **Drag** Point to an item on the screen, then press and hold down the mouse button while you move the mouse.
 - **Select/Choose** Click an item in a menu or dialog box.
-

Check the System and Practice

In conclusion, we would like to stress the importance of taking time to check the installation of your computer on the boat. You will also find it profitable to learn how to use the program before you try to use it on the fishing grounds. As you probably know, reading alone will not teach you how to use any program. *You must practice!* A full-function tutorial has been provided for that purpose. Use it. The only difference between using the tutorial and using the program at sea is that the ship's position is generated by the dead reckoning function of the program instead of from the ship's Loran or GPS instrumentation. Therefore, you can use this tutorial to become familiar with *P-Sea WindPlot* before you try to use it at sea where other matters will require your attention. *We recommend that you use the tutorial to take a few imaginary trips. Use the features you will need while fishing.* Ideally, you will check out the system thoroughly and become familiar enough with the program before you reach the fishing grounds that you never have to consult this manual while you are fishing.

Introduction

P-Sea WindPlot is a software and hardware package that converts an ordinary personal computer into the most powerful commercial plotter currently available. The software is designed to run in a Windows® environment on a 100 percent IBM compatible computer with a hard-disk drive. It accepts 0183 output data from your Loran-C, GPS, or Sat-Nav and plots the ship's track (or individual spots) on a chart at a scale of your choosing. A mouse is not required, but it is strongly recommended.

It was developed with commercial fishermen in mind. It allows you to record your fishing spots, tracks, hangs, waypoints, tack lines, water temperature, depth of water, the depth of the fish, what you catch and anything else that you can quantify or describe. It will make it easy for you to keep excellent fishing records and thus contribute significantly to your fishing profitability.

Since the *P-Sea WindPlot* software uses an IBM compatible computer, you can store your data on flash drive or memory sticks. More than billion spots (or hangs & waypoints) and their associated descriptions of up to 73 characters in length can be recorded on memory sticks or rewritable CD. You can use as many flash drives as you like so that your storage capacity is unlimited. These records can be stored *permanently!* No power is required for storage. (We advise storing backup copies of the program and your data in a secure location ashore.)

As a Windows program, *P-Sea WindPlot* offers many advantages:

- < Windows lets you run more than one program at a time and move easily between them. You can run *P-Sea WindPlot* to keep an eye on the fishing situation and write a letter, play a game, or use a spreadsheet at the same time. This can be done by switching from one program to another or by splitting your screen so that more than one program is visible.
- < Windows provides a standard mechanism for copying or moving information from one program to another. This means that data can be taken from *P-Sea WindPlot* and placed into a spreadsheet or sophisticated statistical program for analyses without need for reentering the information.
- < Windows makes more efficient use of the computer's memory. *P-Sea WindPlot* takes advantage of memory beyond 640 KB.
- < *P-Sea WindPlot* uses standard Windows drop-down menu and dialog box formats and thus it has a great deal in common with other Windows programs. This means that if you have used any other Windows program, you are well on the way toward knowing how to use *P-Sea WindPlot*.

Special Features

P-Sea WindPlot provides the following additional special features:

1. You control what is on the computer screen.

The range that the screen represents can be anything from 0.1 to 3000 nautical miles. The data, which can be presented on-screen, includes:

- < The range in nautical or statute miles that is measured from the top to the bottom of your screen
- < Split screen option and/or chart overlay
- < A plot of the ship's position and a report of the Latitude/Longitude or TD's of that position
- < Customized track descriptions can be displayed
- < A track editor lets you join two tracks together or partially erase one
- < The speed and course of the ship can be displayed
- < Boundary Builder for setting fish and no fishing zones.
- < As many as 1,000,000,000 marks (hangs) can be displayed on the plotter screen at one time. Marks can be left at the ship's position, at a range and bearing from the ship's position, at a cursor's position, or at a position entered directly as Latitude and Longitude or LORAN TD's
- < Variable width lines linking any mark to any other mark
- < 15 mark sizes in 124 colors and 10 symbols (symbols are user-defined shapes)
- < Un-erased marks and tracks, data is not erased incase of accidental erasure.
- < Compatible with a wide variety of charts with number or status of the current chart
- < Range, bearing and ETA to a waypoint
- < 3D cross-track error box for waypoints
- < Range and bearing to the end of an A-B tack line
- < A track of the ship's position as it moves and any name you have given the track
- < Recorded tracks in 15 sizes and colors (optional 92 track color)
- < Previously recorded tracks and their names
- < Distance to nearest land
- < An alarm icon that indicates that one or more of the program's seven alarms have been set
- < Digital voice announces alarms, help menus and other features
- < Analogue compass
- < Tide forecaster with plot and maximum and minimum tides
- < Radar tracking icon for plotting other vessels track with your radar
- < ARPA Tracking interface. Plots and stores tracks of other vessels using ARPA radar.
- < AIS option for tracking vessels equipped with AIS receivers.
- < Display vector or raster type charts
- < The positions of other fleet vessels using an optional satellite tracking system
- < Man overboard button
- < A small insert containing an overview of the chart you are using
- < And numerous buttons that provide shortcuts to program functions
- < Built-in context sensitive help by pressing the **F1** key (excluding Vista Computers)

The program allows you to select the data presented on the screen. You may want to limit the data presented for security reasons or just to reduce the confusion caused by too much "information". At the same time you can be certain that the information you *do* require is there in a clear and concise form. For example, the screen on which these data are plotted can be anything from a blank screen (which you might want to use for security reasons) to one showing a grid giving Latitude and Longitude, showing the coastline and even depth contours. You can easily turn on or off any information that is presented on the screen.

2. **Data storage is virtually unlimited.**

You can store as much information as you like and never run out of room because you can use as many memory sticks or CD's as you like. The storage capacity of a memory stick can handle just about as many tracks and marks as you can make. Some WindPlot users run the marks and tracks directly from the flash drive so they can take it with them when leaving the boat for security reasons. In the case of multiple captains on a single vessel, each captain can have their own memory stick taking it with them when they leave. Computers now days all have large hard disks so that it is unlikely that your data will fill your disk space and there is no reason to fear running out of memory.

3. **Data is available for analysis.**

Since *P-Sea WindPlot* is a Windows program, powerful spread sheets and statistical programs can be run on the same computer at the same time and data can easily be shared between these programs without reentering it. Such specialized programs can be used for data analysis in the development of your fishing strategy and tactics. This makes it practical to look for correlations of fishing profitability with tide, currents, sea state, phase of the moon, season, or any other recordable variable. Such computer power may well make the difference in today's competitive world. Also, storage of data on external drives like memory sticks facilitates the transfer of data to another computer for analysis.

4. **Your data is secure.**

P-Sea WindPlot provides for the security of your data. (You can't even start the program without a security code.) Data not needed for current operations can be stored on separate disks, which can be placed out of reach. The use of standard computer disks and a standard IBM compatible computer also provides the means of communication. You can provide another fisherman with whatever data you choose. You are in complete control of access to your information.

5. **Entering data is simple.**

The Latitude/Longitude grid is provided automatically. You can enter a spot, hang, or waypoint at the boat's position by simply pressing a key or a mouse button. It is equally simple to enter a spot, hang or waypoint at the cursor's position on your chart. You can also use the keyboard to enter the Latitude/Longitude or TD's of a mark or hang. And a mark can also be placed at a range and bearing from the boat's position.

You are free to enter notes up to 73 characters long to describe each mark. These marks can be displayed on the plotter screen in 10 different shapes and 15 different colors. Letters can also identify marks and have their range and bearing displayed at the same time. Marks can be associated with tracks and turned on and off with these tracks. Each track is automatically time and date stamped. Track names are limited to eleven characters, but if more information about tracks or marks is required, you can create up to four "custom columns" to record this additional data.

Tracks are recorded automatically; all you have to do is save those that you want to keep for future reference.

6. **Nine types of alarms are available.**

An anchor alarm can be set to go off if the vessel moves beyond a preset distance. An alarm can be set to go off if you come closer than some distance you set to a mark (or group of marks) that have the range and bearing flags turned on. If you are tacking back and forth along a line between points A and point B, you can set an alarm to go off as you near A or B. You can set an alarm to go off as you approach a waypoint. A XTE alarm can sound if you get too far off course from the waypoint. The near-land alarm can be set to go off if you get too close to land or if you get too far from land. And you can set an alarm to go off if you go onto a set color or if you go off a set color. For example, the color can be color of a no fishing zone you built with the boundary builder, or just a section of the chart that you have colored. When using multi-colored track mode, an alarm can be set to go off when a certain track color is reached.

7. **A *Man OverBoard* button is provided which sounds an alarm and marks the spot to facilitate recovery.**

8. **It has flexible input and output.**

It can be operated from the keyboard, using the mouse, or using a combination of keyboard and mouse input. It can be operated using a monochrome screen, but it will take full advantage of color if it is available.

9. **It can use both vector and raster charts.**

A large variety of charts can be purchased to use with this program. There is P-Sea WindPlot II that is compatible with Navionics Vector charts. There is P-Sea WindPlot MAX that is compatible with C-Map Vector charts. Other than that, both programs are the same and both are compatible with NOAA/BSB raster charts, P-Sea Soft Bathy and vector charts. In addition, a chart-drawing program is available for either program at additional cost, which will enable you to use a digitizer tablet (and your computer) to draw your own custom charts.

10. **The program is well documented and easy to install.**

P-Sea WindPlot is simple to install and it is well documented. You have made an excellent choice of software and we intend to provide a series of updates to keep your data acquisition and analysis capability at the cutting edge. Good fishing.

11. **Options**

Most fishermen will at some time use most of the functions that are built into WindPlot at one time or another. In order to keep the cost down some of new functions that are added and may never be used by some users have been made optional. Some of these options are; P-Sea 3D for displaying the bottom in 3D, P-Sea Bottom Builder that is used to update the 3D bottom via a depth sounder input, P-Sea Radar/ARPA and the P-Sea FishFinder that offers a full-screen fish finder with bottom hardness, roughness and biomass readouts and data storage.

Getting Started

In this chapter you will learn how to:

- Install P-Sea *WindPlot*
- Start the program
- Use the full-function tutorial
- Use on-line **Help**
- Quit the program

Installing P-Sea WindPlot

There is a **USB style key** that needs to be plugged in to make WindPlot run. This key has a small square end that plugs into a similar hole in the computer. If you have this style of key you should **WAIT UNTIL THE PROGRAM IS INSTALLED TO PLUG IT IN!**

Usually the P-Sea WindPlot install CD starts by itself when first inserted but can be installed from the Windows **START** menu by selecting **RUN** or for Windows Vista or 7, type **RUN** after clicking the **START** button then click on **RUN**. The program will install itself in a subdirectory of your choosing while the setup program is running. Browse the CD for the **WPLSTALLMENU.EXE** file and double-click on it. Select the **New WindPlot II** or **MAX** and select the program you want to install. Usually there is a more detailed instruction sheet included with the install CD that specifies the program you need to select.

Quick Start

Before you install on Windows 7 or Vista: You must turn your UAC control off in User Accounts.

- 1 Click the windows “*START*” button and select “*Control Panel*”
- 2 Click the “*User Accounts*” Icon. Select “*Category View*” or “*Icons*” if you do not see this icon
- 3 Vista users click the “*Turn User Accounts on or off*”.
Windows 7 users click the “*Change User Account Control settings*”
- 4 Vista users click the “*User Account Control*” check box so that it is uncheck, in Windows 7 move the slider control to “*Never Notify*”.
- 5 Close all windows and let the computer restart. If you are going to use the internet then we suggest returning these controls back to there original settings AFTER installing and successfully running P-Sea WindPlot program.

To install P-Sea WindPlot:

- 1 Close all running programs and then insert the WindPlot Setup CD in the CD drive.
- 2 Wait for the program to start, if it doesn’t click on the COMPUTER icon to explore the drives .
- 3 Double-click the CD drive. This may start the installer, if it doesn’t, then locate the Wpmax_Install.exe file on the CD and double-click the file to start the installer.
- 4 The installer menu has “*New P-Sea WindPlot IP*”, “*New P-Sea WindPlot MAX*” and “*Old P-Sea WindPlot 6.77*”. New programs should normally select “*New P-Sea WindPlot MAX*”.
- 5 Click on *Next* in the opening screen then read the *License Agreement* and select *Yes* to if you agree.
- 6 Click on *Next* to install in default folder or select a new folder name and click *Next*.
- 7 If do not want a backup directory created click on *No* then click on *Next*.
- 8 If you do not want a shortcut on you desktop then select *No* then click on *Next*.
- 9 Wait for files to copy, as they copy it is sometimes common get a FEW errors, click on finish, remove the CD & restart Windows if asked to do so.

Two key drivers will start when the computer starts back up with “Please wait”. It is typical to get a couple of errors during the key driver install. Just click on OK if this happens.

Windows XP/2000pro, XP, Vista and Windows 7 users BEWARE: You must start the computer BEFORE you turn on your Loran, GPS, Temp. gauge or any other device that is going to the computer or the mouse and menus may jump around.

Starting P-Sea WindPlot

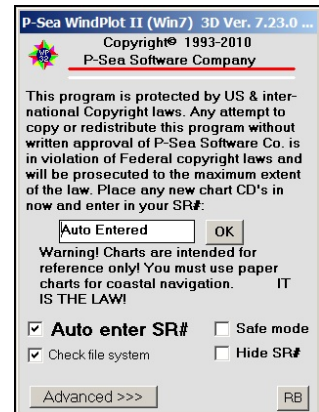
To Start P-Sea WindPlot from Windows:

- 1 Start Windows if it is not running.
- 2 Double click on the P-Sea WindPlot program group icon in the Windows program group or double click the shortcut to WindPlot that is on the desk top.
- 3 Wait. Whenever you can see an hourglass on your screen, do not do anything until it disappears.
- 4 A dialog box will appear on your screen asking you to enter your security code. If “*Auto Entered*” is in the box then you just need to click “*OK*” to get the program started. If not, then locate the box it came in, the number you need to enter here is printing on the top of the box.



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- 5 Check the Auto Enter check box if you want to bypass entering your serial number each time if not already checked. Then press **Enter** and the code box should disappear. If you entered the wrong number, another dialog box will appear and ask if you want to try again. Click on *Yes*, correct the number, and press **Enter**. (Check the *Hide SR#* check box if you do not want anybody to see the number as you type it in)
- 6 Wait for the program to finish loading.



Added SR# security

There is extra security available for those that want to enter their serial number. Check the *Hide SR#* box and no one can see any numbers you enter because stars (*) appear instead of the numbers you enter.

Safe Mode

You will notice a safe mode check box in the box where you enter your security code. This should hopefully never need to be checked. However, should the program ever “Hang-up” just after entering your code then reboot the computer and next time check the *Safe Mode* check box before continuing on with the program. This will just start the program with nothing loaded or turned on. Then just turn things like charts back on at a time until you discover what causes the program to hang. Then next time do the same with the SAFE MODE but this time leave the function that causes the hang-up turned off. Then call your local dealer to fix the problem.

Check File System check box

When this box is checked in the start up window the program will check for any **Read Only** files and remove the Read Only setting so it can be changed by the program. Otherwise, you may not be able to save data made by the program. This file settings can change when you use a CD to transfer data. If you do not use a CD then you can uncheck this box and save a little start up time, depending on how many tracks and marks/hangs you have.

ADVANCED button (Creating Multiple-Fishing Areas)

An “*Advanced*” button has been added to the P-Sea WindPlot Copyright/startup window that appears when first starting the program. The purpose for this is split up fishing data for the fishermen that work vast fishing areas. For example you can make the new areas you work as “W_FLORIDA and TEXAS. You can create up to 8 fishing areas, each is it’s own program with separate data but can share the same charts.

Renaming the default fishing area: Click the “*Advanced*” button to expand the bottom part of the SR startup window to reveal the new Multi-Area selection option. The “*Default*” is install folder, usually PC-PLOTT and you can rename it by clicking the “*RENAME*” button next to the word “*DEFAULT*”. It must be less than 15 letters and can not consist of anything but letters, numbers and spaces (no punctuation!). The spaces will be replaced with an underscore line if you use them. You can rename any of your working areas by the same method.

Quick Start

Creating a new fishing area: Create a new area simply by clicking on the “*Click here for new area*” line in the advanced section of the WindPlot SR startup box. This will ask you to name the new area then proceed to create a totally new installation of P-Sea WindPlot using the name you gave it as it’s folder name. During the creation of the new program you will be asked if you want certain data transferred to it. Once that is done it takes a couple of minutes to copy all of the needed files so give it time. The next time you start P-Sea WindPlot you will see the new area listed in the “*Advanced*” part of the start up box. Just click on it and press enter to use. Each of the areas you create can contain separate tracks and marks and therefore the track and marks you make in one will NOT show up in the other.

Rebuilding already created Multi-Fishing Grounds: If you loose the fishing areas and it comes up with only the defaults **or you are upgrading to this new version** that used multi-icons on the desktop and want to use the multiple icons you had setup previously then **click the “*RB*” button**. This will automatically search and find all existing P-Sea WindPlot installations and add them as it updates the program if needed.

Auto-Launch Options like 3D or P-Sea FishFinder; Click the “*Use Last Setup*” check box to have the program always select the same area as the one when you last shut down WindPlot. It will also automatically launch any of the program Options if you were using them (radar, fish finder or 3D). Then if you use any of the dual-monitor spanning options then they will be remember too and automatically launch them for you. The name of the area will be added in the programs title bar where the version of the program is always displayed.

Any one of these areas can be deleted by right-clicking on the “*Rename*” button.

Quick Start Basics

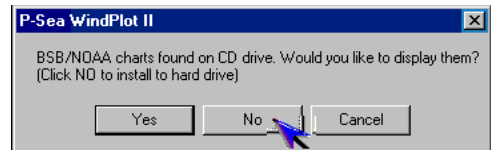
For those that can't wait to read the manual and want just the basics to get started this section will demonstrate the following:

- Loading Charts from a CD
- Displaying and switching charts
- Setup WindPlot to use TD's
- Hooking up to GPS or Loran
- Loading Track and Hang data
- Making Tracks and Marks underway
- Setting Waypoints

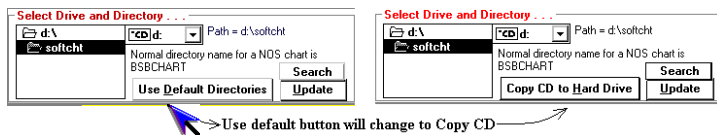
Loading ANY Charts from a CD

If you have a BSB regional or any P-Sea compatible chart on CD and have not copied it to your hard-drive then do so now. It is really simple thing to do, just do the following for each CD:

- 1) Quit P-Sea WindPlot if you have it running
- 2) Place the chart CD in the CD drive. Cancel out of any program the CD might try to load. (The MapTech Chart Navigator is one that will try to start but **DO NOT LOAD IT!**)
- 3) Start P-Sea WindPlot by double-clicking on its icon.
- 4) Enter your SR# and the program may say "Charts found on CD-Would you like to display them? (Click No to copy to hard drive)". Usually you should click "No" so they are copied to hard drive.
- 5) If it is a Hi-Resolution Bathy. CD you are trying to load then you will have no choice but to copy them to the hard drive. You just need to click on "Yes" to answer the question to which drive you want them copied.



It is best to copy them to the hard drive. If you didn't do like is says above and click on "No" then you can still copy them. To do this you will need to click



Quick Start

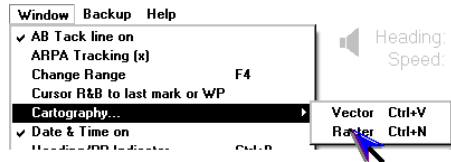
the “Use Default Directories” button. It should then change to “Copy CD to Hard Drive”. Click this button and the copy CD window will open. Usually you can just click the “Add CD to C” button in this window and wait for the charts to copy. If your computer has another hard-drive you may need to click on the “Add CD to D” button. It will depend on which drive has enough space for the charts. The program will not load all of the charts if there is not enough room. Besides it is usually best to copy them to drive D if there is one.

Displaying and switching charts

If you have only one type of chart you do not need to switch but if you have several types of charts like BSB navigational and P-Sea Bathy. then there is a easy way to switch between them. WindPlot provides a shortcut button to switch between charts and hard drives where charts are located. This requires the chart short-cut buttons to be turned on if not already done.

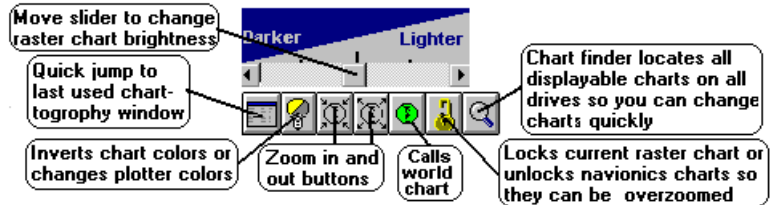
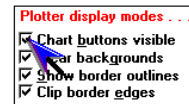
Turning the chart short-cut buttons on

- 1) Select the *Window* menu item in the WindPlot menu bar.
- 2) Select *Charts/Cartography*.
- 3) Select *Raster*.



The raster chart window should now be visible.

- 4) Select one of the *Raster chart types* if not already done.
- 5) Locate the *Chart buttons visible* checkbox in the *Plotter display modes* located near the center of the window and check it.
- 6) Click the *Exit* button

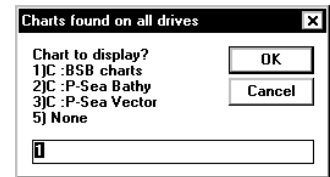


Now when you run the mouse along the left side of the plotter screen you should see a group of buttons appear in the lower-left of the screen. Click the last button on the right that looks like a magnifying glass.

A small window will appear with a list of all charts on your computer with a number in front of each.

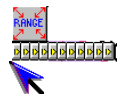


Enter the number for the chart type you want and click on “Ok” to switch to the new type. P-Sea WindPlot will search for the best charts and display them.



Or click the buttons shown here to the left. They will only appear when you have more than one type of chart loaded like, BSB and P-Sea Bathy charts. The top button is the BSB charts and the second is the Bathy. Charts. Right-clicking on these buttons calls the chart list for the associated button.

BSB may have many charts for the same area but in different scales. If you want to select



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another chart then touch the mouse arrow on the left side of the screen again. This time look up near the top-left. You should see a small button with a yellow arrow on it located just underneath the RANGE button. There may be several of these buttons, each one representing different chart. Just click any one of these to switch to another chart. The charts increase in size of area covered from left to right. This gives the same affect as changing ranges.

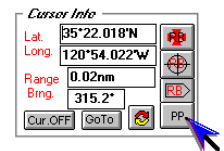
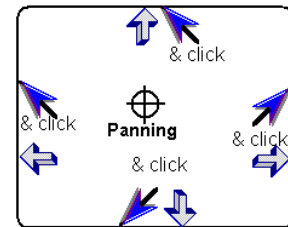
As soon as you select a chart that is not the best for navigation, a yellow caution button will appear in the left of the plotter screen. Clicking this button will bring back the best chart and get rid of the button.

Setup WindPlot to use TD's

The first thing that must be done in order to display TD's is to position your vessel where you are or where you are going to fish. Skip to the next steps if your GPS is already running with WindPlot.

Position the plotter where you are if GPS not connected by:

- 1) Press the **F2** key and you should see a cursor on the screen.
- 2) If you are far from where you need to be then zoom out by selecting a larger chart as described above.
- 3) Place the mouse arrow on the edge of the plotter screen in the direction you need to go and click. This will cause the screen to pan.
- 4) Keep panning until you get to the location you want and click the **PP** button located in the *Cursor Info* box.



Press the **F2** key again to turn the cursor off.

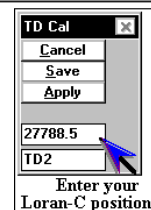
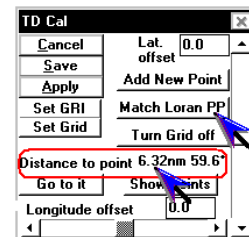
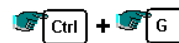
The cursor must be off to access all of the plotter's functions.



Now you need to setup your GRI and Slaves for the Loran-C station in your area.

NOTE: If you are using ASF then you can go directly to the “Options” menu, select “Conv.TD's to LL” and skip to step 5 now.

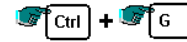
- 1) Press **Ctrl-G** to bring up the TD calibration window. It may ask if you want auto TD on, click on *Yes*.
- 2) Look at the *Distance to Point*. If the distance is greater than a few miles then click the *Add New Point* button then click on *Ok* for current GRI and *Ok* again.
- 3) Now that Loran-C has been shut down, you can no longer calibrate the TD using the Loran so the default TD as entered for you. But if you have a set of TD's for your position then be sure to follow each TD with an **Enter**.



Quick Start

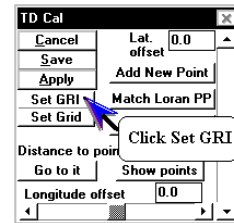
Don't worry about getting them accurate right now as it will have to be redone again when you change the GRI or Slaves. Click on *Yes* when it asks if your position matches.

- 4) If the calibration box disappears press **Ctrl-G** again to bring it back.



Now that the distance to point is fairly close, click the *Set GRI* button.

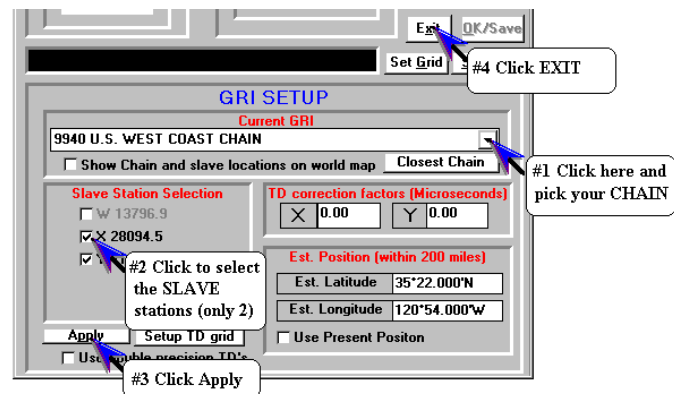
- 5) If you need to change the GRI station then locate the black arrow pointing down in the middle-right of the GRI setup window. It will have a wrong GRI station chain already listed to the left of it. Click this button and a list of all available GRI station will drop down.



- 6) Select the chain for the area you are in.

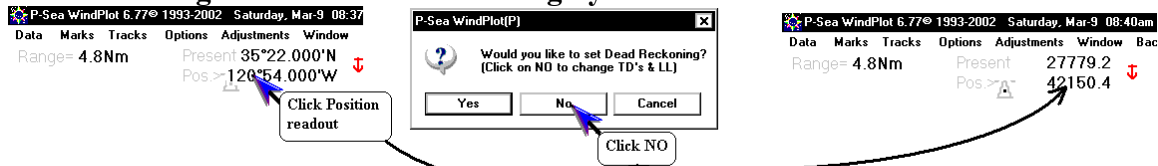
Next you need to select the proper slaves. The available slaves are listed in the lower-left.

- 7) You can only select two slaves, so first click on the one that is wrong so it is un-checked. Then click on the slaves you want so that a check is in front of it.



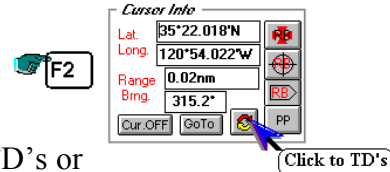
- 8) When you are satisfied click the *Apply* button in the lower-left and then click *Exit* button.

You can change to TD's on the following by:



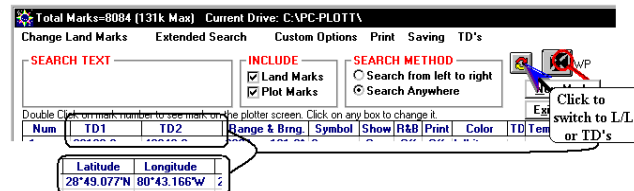
Click on the present position readout and select *No* to switch between TD's and Lat./Long.

Press **F2** to turn the cursor on and click the button to switch between TD's and Lat./Long.



Click the same button in the *Mark Search & Edit* list to select TD's or

Lat./Long. You can find the mark list by selecting *Marks* in the WindPlot menu bar then select *Marks Search & Edit*. You can create new hangs in TD's by changing the list to TD's then click on the *New Mark* button.



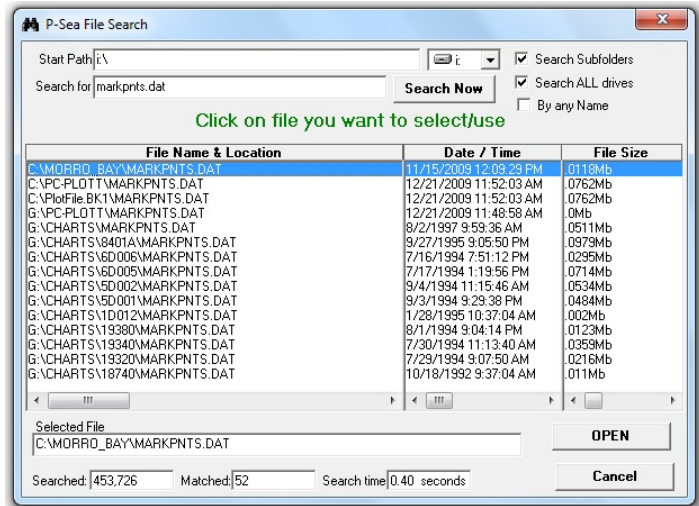
Hooking up to GPS

See Chapter 3 in the back of the manual for connection and setup of the GPS.

Loading Tracks and Hang data

To load tracks and hang data that you get from your friends computer into your program can be simple but it helps to know in what manner it was copied. You may also have trouble with getting all tracks to load if they came from a different (older) version that the WindPlot you are using. WindPlot expects the data to be on a re-writeable drive (Not a CD) and in the same directory as the program is installed in, normally the default a folder is called “PC-PLOTT”. If you do not know how the tracks or marks were stored then when one of the methods listed below doesn’t work try the other. All marks/hangs are in a file called

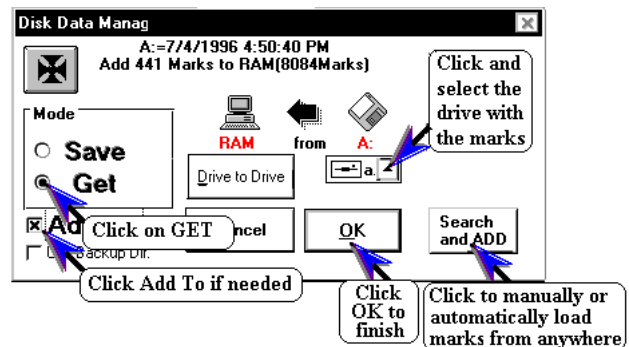
MARKPNTS.DAT. All tracks however are in separate/numbered files. Track one for example is named “TRACK1.DAT” and track 100 would be “TRACK100.DAT”. In order for WindPlot to work efficiently with large quantity of track files it uses a track directory file named “TRACKDIR.DAT”. This file contains the name, description, color, width and position of ALL of the tracks located in the WindPlot install folder that is “PC-PLOTT” by default.



If you are not sure how the data was stored then the best is just to do an automatic search and add. This is done by clicking calling the *Disk Data Manager* (click “Data” then “Tracks” or “Marks”). Then click the “Search and ADD” button. You will be asked if you want to search automatically. If your not sure where they are then click on “Yes” for the automatic search. Then just click the “Search Now” button and wait for the search to finish. A list of files it found will appear with dates, size and locations. Find the one you believe it is and click on the file then click the “Open” button. Then click “Yes” to add the file then click “Yes” again when it tells you how many marks will be added to the program.

Loading marks the old way using the Data menu

- 1) Place the mark data disk in the drive. You will need to know the drive letter for the drive you put it in. Usually floppies are drive A and Zip or CD drives and can be any letter from D to Z. You can use *My Computer* to list the available drives to help find the drive letter. Memory sticks will be in removable drives.
- 2) Select *Data* in the WindPlot menu bar.
- 3) Select *Marks*.
- 4) Select *Get*



Quick Start

- 5) Click the black arrow that is pointing down located in the lower right.
- 6) Select the drive letter for the disk containing the marks to load.
The drive should start to count the marks on the disk and then it will display the total it finds in the top of the data window.
- 7) If you have marks already loaded then you will want to click on the *Add To* check box.
(The top should reflect that your are going to add mark together.)
- 8) Click on *Ok* to finish loading the new marks.

Loading non-compressed tracks using the Data menu

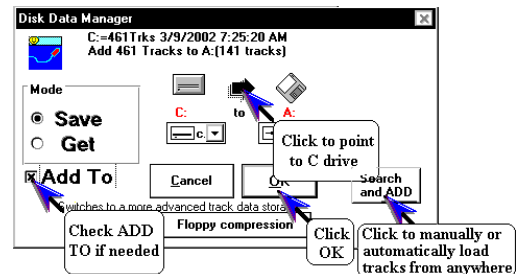
- 1) Place the track data disk in the drive. You will need to know the drive letter for the drive you put it in. Usually floppies are drive **A** and Zip or CD drives and can be any letter from **D** to **Z**. You can use *My Computer* to list the available drives to help find the drive letter.

- 2) Select *Data* in the WindPlot menu bar.

- 3) Select *Tracks*.

There are two different *Track data* windows you could end up with. If the window has a *Floppy Compression* (now obsolete) button on the bottom then continue on here otherwise skip to *Compressed tracks found*.

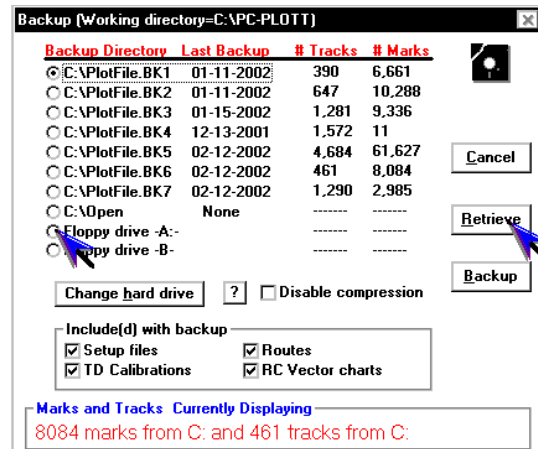
- 4) If the drive with the new tracks is not A or B then you will not get the floppy compression window.



- 5) Click the *Add To* check box if you already have tracks loaded in WindPlot. At this point the picture should be showing the left drive box with the drive letter containing the new tracks pointing to the **C** drive. (Unless WindPlot was installed in a different drive than C. Then the right drive box should be changed to the same as where WindPlot was installed).
- 6) The top of the track data window should indicate you are going to save some number of tracks. Click on *Ok*.

To load marks and tracks from a backup disk:

- 1) Place the disk in the drive. You will need to know the drive letter for the drive you put it in. Usually floppies are drive **A** and Zip or CD drives and can be any letter from **D** to **Z**. You can use *My Computer* to list the available drives to help find the drive letter.
- 2) Click on *Backup* and then *Do Backup* in the WindPlot menu bar.
- 3) Click on the drive that contains the backup files. You should see a total marks and tracks with a date that they were saved if there is any backup data on the disk.
- 4) Click on the *Retrieve* button.



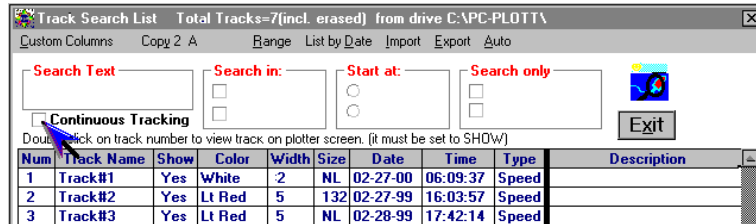
CAUTION! Any mark and track data you already have on the computer will be lost!

Making Tracks and Hangs underway

You should first setup how you want to handle the HALT mode. The default method is *Continuous Tracking*. That is the track is all one piece even when in the halted. When out of the continuous tracking mode, there will be a blank spot where the track was halted. Note: You can halt a track at any time by clicking the traffic light locate on the button bar that is on the right-side of the screen.

Setting the Continuous Tracking checkbox:

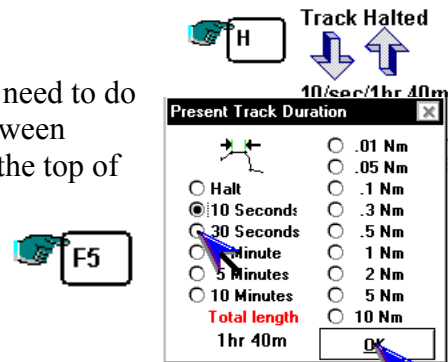
- 1) Select *Tracks* in the WindPlot menu bar.
- 2) Select *Track Search & Edit*.
- 3) Check or uncheck the *Continuous Tracking* check box as desired.
- 4) Click the *Exit* button.



Making Tracks:

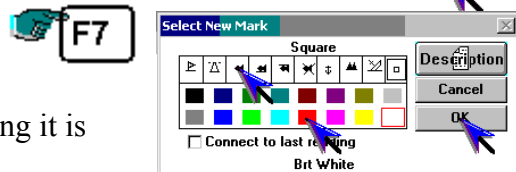
Tracking is the default mode of WindPlot. So usually all you need to do is just use the **H** key on the computer keyboard to change between tracking and halt. The present tracking mode is displayed at the top of the plotter screen next to the present position readout.

Press **F5** to select a different track duration and press **F3** to change track color. Press **F5** to save the present track and **Ctrl-F5** to start a new track.



Making marks/hangs:

Method 1: Press **F7** and click the symbol and color you want and click on *Ok*.



Method 2: Click the right mouse button (Assuming it is turned on, see mark menu if not)

This method will make a mark with the same color and shape as the last mark made.

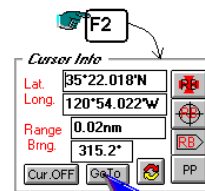
Method 3: Press **F2**, place cursor where you want a mark and press right mouse button. Press **F2** again to turn the cursor off and resume tracking.

Setting Waypoints

There are many ways to make a waypoint.

Method 1: Press **F2**, place the cursor where you want to go and click the *GoTo* button on the *Cursor Info* box (Or press **Shift-W**.)

- 2) Press **F2**, place the cursor on a mark then click on the mark number that appears in the lower middle of the plotter screen. Click on *Yes*.



Quick Start

- 3: Click on the *W.P.* readout on the bottom of the plotter screen. The waypoint/Route menu will appear. The bottom of this window has several other methods for setting waypoints. See **Option ' Routes/Waypoints** part of this manual for the details on how to use them.

Backing up your data and settings;

Once you get your program loaded and running properly with charts, tracks, marks and everything it is just as important to back this information up. Usually to a thumb drive so that you have a working copy should the computer's hard drive crash on you.

A separate menu was created just for this purpose and it is called "**BACKUP**". The actual workings of this is described later on in this manual but for now all you need to do is put a memory stick in the computer, open up the computer's listing of drives by clicking on "*Start*" then select either "*Computer*" or "*My Computer*" depending on what windows platform you are using. The drive letter of the memory stick should be listed under "*Removable Drives*".

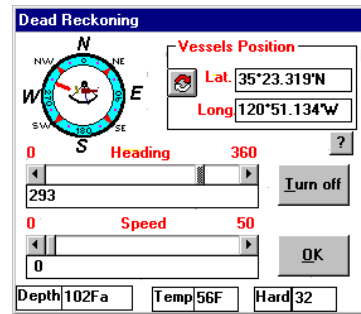
Once you have the drive letter, click on the "*Backup*" menu in WindPlot and click the "*Change Hard Drive*" button until the drive letter for the memory stick comes up. Then check all of the backup option checkboxes and follow that by clicking on "*Backup*" button. In a minute or two your data should be all backed up. You should back up occasionally when you can.

Using the tutorial

The *Dead Reckoning* feature of this program provides the basis for a full-function tutorial. When activating the Dead Reckoning feature, the program will operate just as if you were actually making the speed and course set. You can then practice using all of the features you will want to use while fishing.

To activate *Dead Reckoning* for practice:

- 1 Click on *Options* from the plotter menu bar to bring down the **Options** menu.
- 2 Click on *Dead Reckoning*. The *Dead Reckoning* dialog box will appear.
- 3 Click on the *Lat.* box, use the **Del** or **Backspace** key to delete what is there. Using the number key at the top of the keyboard, we type in the Latitude of our starting location. We type the number of degrees (without a degree sign) followed by the number of minutes, followed by a decimal point, followed by hundreds of a minute. (Note: You may need to press N or S if you need to change it.) The program will supply the degree sign, the minutes sign and the N.
- 4 Press **Enter**. If you did it right, a degree symbol will appear. If not, try again until it does appear.
- 5 Click on the *Long.* box, use the **Del** or **Backspace** key to delete what is there, and then enter the Longitude of our starting location in a similar fashion.
- 6 Press **Enter**.
- 7 Click on the *OK* button to confirm settings and the boat icon will be at the starting location on the screen.



To start our trip, we

- 1 Adjust the heading by dragging the scroll button along the upper horizontal scroll bar until the heading you want shows in the box, or by clicking on the edge of the compass rose to indicate the direction you wish to go.
- 2 Adjust the speed by dragging the scroll button along the lower horizontal scroll bar until the proper speed shows in the box.
- 3 Click on the *OK* button.

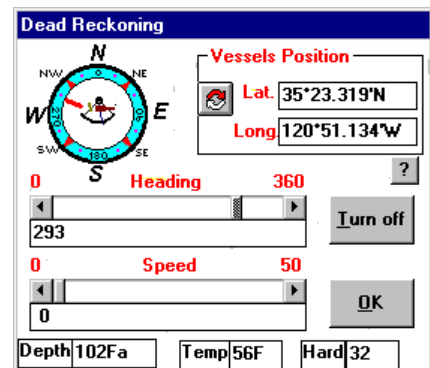
Go ahead, practice! Leave marks, make tracks, change ranges, etc. You can't hurt anything. If something should go wrong, press **Ctrl+C** to exit the program and start again. Should this not be sufficient, consult [Appendix A: Problems and Solutions](#) in the back of this manual.

Imaginary fishing trips.

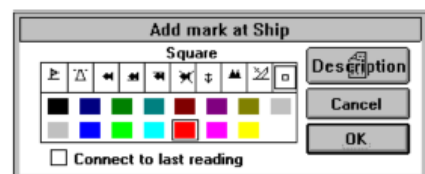
In these examples, we will take imaginary salmon fishing trips to demonstrate some of the more useful features of your *P-Sea WindPlot* program. Since the purpose of these examples is to help you get started using the program, we will use only features we think you are likely to want to use in your fishery. In the first example, we will call these features in the way that is intuitive and therefore easy to remember, rather than using techniques that are faster but more difficult to learn. In the second example we will restrict ourselves to using only the keyboard. This will demonstrate that the program can be run without a mouse and show that for many commands, the keyboard is faster once you know the commands.

Before we can start on our imaginary trip, we need to position the vessel on the plotter screen at our homeport or at a familiar anchorage for the start of our imaginary fishing trip. Calling the Dead Reckoning dialog box and entering the position of our starting point can accomplish this.

To call the *Dead Reckoning* dialog box, click on *Options* in the plotter menu bar and then click on *Dead Reckoning*. Now, to move the vessel to the starting point, we click on the *Lat.* box, use the **Del** or **Backspace** key to delete what is there, and use the keyboard to type in the desired value of Latitude. We type the number of degrees (without a degree sign) followed by the number of minutes, followed by a decimal point, followed by hundreds of a minute. The program will supply the degree sign, minutes sign and the N. (Note: You may need to press N or S if you need to change it.) Press **Enter**. Click on the *Long.* box, use the **Del** or **Backspace** key to delete what is there, and use the keyboard to type in the desired value of Longitude in a similar manner. Press **Enter**. Finally, clicking on the *OK* button will position the boat icon at the starting location on the screen.

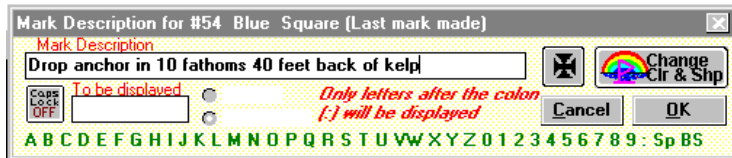


We will start our imaginary trip by leaving a mark at the position on the plotter screen that corresponds to the position of our vessel at anchor. The first step in making this mark is to make sure that the cursor is off. If it is on, we click on the cursor button in the upper left of the screen. If we were willing to accept the color and symbol of the last mark and the *Right Mouse Button* is activated, we could click with the right mouse button and be done. However, we decide to choose the shape and color of the mark we make at the anchorage. To do this, we click on *Marks* in the plotter menu bar to call the Marks menu. Then we click on *Edit From Screen* to call a sub-menu. We click on *Add Mark* in this sub-menu to call the *Add mark at Ship* dialog box. We click on the color green and the symbol of an anchor to remind us that this was a good anchorage. If we do nothing, in a while a mark will be made automatically.



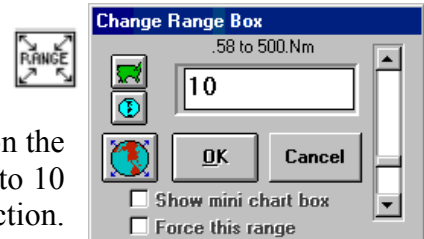
Chapter 1, Getting Started

Instead we click on the *Description* button and enter instructions for anchoring in the dialog box that appears. We click on *OK* in this dialog box to leave this record of our anchorage.

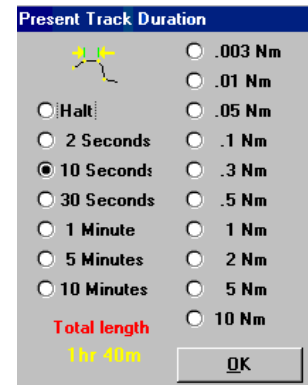


In order to leave on our imaginary trip, we call the *Dead Reckoning* dialog box again and this time we set our speed and course. We click on 280 on the compass rose in the upper left of this dialog box to adjust the heading and then click on the scroll bar button and drag it until the speed of 6.5 knots appears below the speed scroll bar.

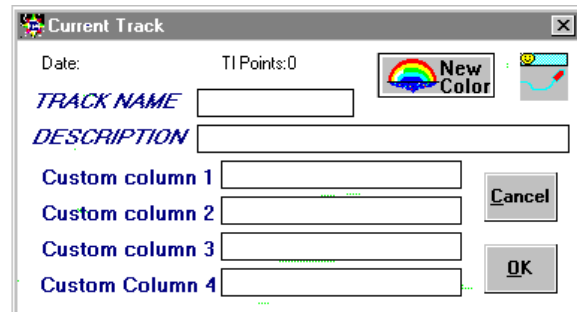
As we move into open waters we find the range we are using is too small and change it to a 10-mile range by clicking on the *RANGE* button in the upper left of the screen. This calls the *Change Range Box* to the screen. We check the “Force this range” box and click on the arrow in the upper right of the dialogue box to increase the range to 10 nautical miles. Then we click on the *OK* button to confirm our selection.



The program is automatically recording our track. It is using whatever plotting interval we used last time. Since the (imaginary) salmon seem to have been in rather small groups, we decide to increase the frequency of recording to .05 miles. To do this, we click on *Tracks* in the plotter menu bar to bring down the *Tracks* menu, click on the first item in this menu, *Current . . .* which calls a sub-menu. We click on the second item in this sub-menu, *Duration*. This calls the *Present Track Duration* dialog box. We click on *.05* and then on the *OK* button in this box to set the plotting interval.



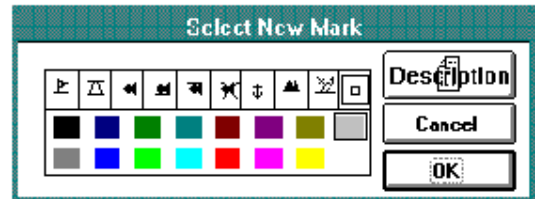
We need to give the track a meaningful name. We choose *iswhtrk30* to indicate that this is an imaginary fishing trip for salmon off-white Rock in 30 fathoms. (Note: we are restricted to 11 characters in the name.) To name the track, we click on *Tracks* in the plotter menu bar to call the *Track* menu. Then we click on *Current* in the menu to call a sub-menu. We click on *Name & Desc.* in this sub-menu to call the *Current Track* dialog box. Now we can type the track name, **iswhtrk30**, in the box for the name. We could click in the description box and type a description at this time but we want to wait until the track is complete before we describe it. We click on the *OK* button to finish naming the track.



As we move out into deeper water, we set our gear and when we near 30 fathoms we change course to follow the 30-fathom line. We do this by clicking on the compass rose in the *Dead Reckoning* dialog box.

Tutorial

Shortly after setting the gear, we have a strike on the very top of the water. To mark this spot we press the right mouse button. (Note: If nothing happens when you press the right mouse button, click on *Marks* in the plotter menu bar, then on *Right Mouse Button* in this menu, and then on *Yes* in the dialog box that asks if you would like to have the right mouse button make marks when clicked.) However, this has left a green mark in the shape of an anchor (the type of mark we used to represent the anchorage) and we want one that suggests fish on the top of the water. To change this mark, we click on *Marks* in the plotter menu bar to bring down the *Marks* menu, then on the second item in this menu, *Edit From Screen*, which calls a sub-menu. We click on the second item in this sub-menu, *Change* to call the change icon. We position this change icon over the mark we want to change and click the left mouse button. This calls the *Select New Mark* dialog box. We click on the small fish with a line above it (representing salmon on top of the water) and on the brown color (representing the color of water the fish was caught in) as the mark to leave on this spot.



We head for a group of boats about 3 miles away that we recognize as good salmon boats. They are in deeper water so we want to start a new track and not save the present one. We click the top button on the button bar. When the button's traffic light turns yellow, we click it again. We are first asked if we want to save the present track so we click on *NO*. We are asked then if we want to start a new track. We click on *Yes* and a second dialog box appears asking if we want to name the new track. We click on the *YES* button and enter in SALMON1. We then return to the plotter when we click on the *OK* button. We click on the top button once more to put the track on *Halt* so we do not use up any track points until we need to (we can also press the **H** key to toggle between halt and tracking).

As we approach the fleet we begin to pick up fish (all on the top of the water) and mark the spots by pressing the left mouse button and click on the top button of the button bar to start tracking. We answer *No* this time when it asks us if we want to start a new track. A friend sees us coming and tells us that the best fishing is right on the bottom in 56 fathoms so we set our heavies to bounce along the sandy bottom for some good fishing and we continue to catch an occasional fish on the surface with our float lines.

After fishing in the area long enough to locate the fish, we set an alarm to go off when we get within 0.3 nautical miles from the end of our tack. Since we are moving at about three knots, this gives us about six minutes warning. We will use an A-B line for the alarm so we need to set the A-B Line. To do this we click on the second to last button on the button bar that brings up the cursor. We then drag the cursor to one end of the tack line and double-click. We then drag the cursor where we want the other end to be and double click again. To set the alarm, we click on *Options* in the plotter menu bar to call the Options menu. We click on *Alarms*, the first item in this menu, to call a sub-menu. We click on the first item in this sub-menu, *A-B Alarm (Tack)*, to call the *A-B line alarm end setting* dialog box. We click on *Less Than* in this dialog box so that the alarm will go off when we are less than a set distance from an end. We click on the right arrow in the scroll bar to increase the distance to .3 NM. We then click on the *OK* button in the dialog box to confirm our setting.

Chapter 1, Getting Started

As our marks continue to accumulate, we get a better idea where the fish are concentrated. We decide to link two of these marks to align our tack more closely with the fish. To do this, we click on *Marks* in the plotter menu bar to call the Marks menu. Then we click on *Linking* to call a sub-menu. We click on *Link marks* in this sub-menu to call a mouse icon in the form of a hand. We place this icon over one of the marks and drag it to the other mark. The line stretches between the first mark and the hand as we drag it to the second mark. Finally, we click on the *Stop Changes* button in the upper left of the screen when finished. This helps to make decisions quickly about which way to go to dodge the other boats in the fast-growing fleet.

Within a couple of hours, so many boats gather that dodging them becomes a major problem and we begin to be crowded off of our tack. To help us keep track of where we are while pulling fish, bleeding them, cleaning them, icing them and dodging other boats we broaden our link line and set the off color alarm. This gives us an audible alarm when we get too far from our tack line.

To broaden the link line, we click on *Marks* on the plotter menu bar to call the Marks menu. Then we click on *Linking* to call a sub-menu and click on *Link Width* in this sub-menu to call the *Link Width* dialog box. We use the vertical scroll bar to adjust the line width to 10. Finally, we click on the *OK* button to confirm our setting. Click on the *Alarms* button, which is the last button of the button bar to call the alarm button bar. Click the last button to call the *Off of Color Alarm* and click on the color that matches the link line. Now the alarm will sound when you wander off our track.

While trolling for salmon, we observe a boat pulling rock cod about 1.5 miles 287 degrees magnetic from our present position. To record this fact, we first turn on the cursor by clicking on the cursor icon. We will enter this into the range and bearing box that is in the bottom of the *Cursor information* box that appears when the cursor is on. We must get the text cursor flashing in the range box so we use the mouse to place the tip of the arrow in the box and click once. We can now see a vertical flashing bar in this box (this is the text cursor). We enter in 1.5 using the numerical keyboard and then press enter. Next, we click in the lower box and enter in 287 and press enter. If we were willing to accept the symbol and color we have been using we could simply click the right mouse button and be done but we want a different mark symbol and color. By pressing **F7** we can quickly call up the *Select New Mark* dialog box. Now we click on the mark color and symbol we want to represent bottom fish. We click on *OK* when we have made our selection.

At the end of a day of good fishing we head for the anchorage but before we start cleaning up the boat and gear we clean up the plotter first while the information is still fresh in our mind. It is easier to edit the marks and tracks while still in the area where they were made. First, we want to remove all link lines so we click on *Marks* in the menu bar. Then we call the linking menu by clicking on *Linking . . .* and then *Clear All*. A dialog box will appear asking if you are sure you want to do this. Answer yes by clicking on the *Yes* button. The screen then redraws with the links removed but the marks are still intact. Next we remove all marks we don't want to keep. We press **F4** to call the *Change Range Box* and change the range to 10 miles so we can see the marks we have made.

Tutorial

Then, from the menu bar, we click on *Marks*, then *Edit from screen . . .* and then *Erase*. This brings up the Eraser icon. We place the **Top** part (the eraser end) of this icon over the marks we want to erase and click the mouse. An *Erase Mark* dialog box appears along the top of the screen and a mark begins to blink. The first group is a little close and the wrong mark is blinking so we click the *Next Closest* button. Now the correct mark is blinking and we click on the *OK* button and the mark is erased and we repeat this until we have all marks cleaned up.

One of the marks we made was a wreck but we didn't get a chance to log it with anything but the wreck symbol. We look on the plotter screen but we cannot find it so we decide to use the mark search menu. We call the menu by clicking on *Marks* then *Mark Search and Edit*. We can quickly find and edit any mark from this menu. We are going to find the mark by listing all marks with the wreck symbol. To do this we click on *Extended Search* in the menu bar, click *By Color & Symbol* and then click on the wreck symbol. Next, you must scroll to activate the new search. We scroll through the marks listed to find the one with no description and the latest date (We had the date and time added.) We click in the description box for this mark and enter in the proper description. We then click on *OK* then *Exit* buttons to return back to the plotter screen.

We want to erase some of the tracks so we press **F4, 1** then **Enter** to change the range down to 1 mile range so the tracks appear separated on the screen (This is one reason why we do the editing right away so we are still in the vicinity.) Now we click on *Tracks* and then *Previous* to call the menu for all tracks that have been recorded or saved. Then we click on the *Edit* then *Whole Erase* and a pencil icon will appear. Place the eraser end (**Top of the icon**) over the track to erase. We place it in an area clear from other tracks and at a corner or turn in the track so we know we are picking a point on the track we want to erase and click the mouse. The track closest to the icon will turn black if it is erased (gray if your background is black already). The color black indicates that the track is turned off and it cannot be used for any other purpose. We click on the *Stop Changes* button in the upper-left when we are finished.

To save this information (the track and the marks) to disk for permanent storage, we click on *Data* and then on *Marks*. Then we click on *OK* when the *Disk Data Manager* dialog box appears. All track changes are saved as they are recorded so there is no need to save them but to save the current track we click on *Tracks* then *Current* and then *Save* (*Disk Data Manager* for tracks is used only for copying a track from one disk to another.) When the button bar is showing, all we have to do to save the current track is click once on the second button.

As we head back to the anchorage cleaning up the boat and gear, we know that the excellent record we kept on today's fishing will probably pay off tomorrow and perhaps next year.

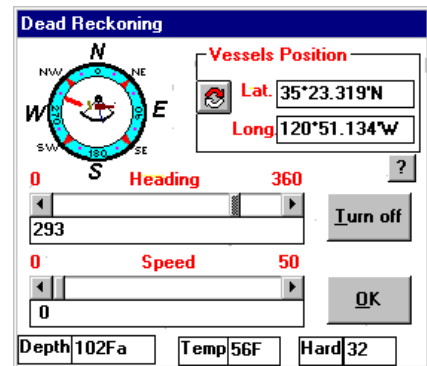
So ends our first imaginary trip. We advise that you take a couple such imaginary trips in your own fishery so that you can become familiar with the plotter commands you will want to use while fishing. Good Fishing!

Example 2: Tutorial, Using the Keyboard.

In this second imaginary trip, we will restrict ourselves to using only the keyboard. This will demonstrate that the program can be run without a mouse and also show that for many commands, the keyboard is faster once you know the commands.

To position our vessel in our homeport or at a familiar anchorage for the start of our imaginary fishing trip, we press **Shift-F4** to call the *Dead Reckoning* dialog box.

We press the **Tab** key until the text cursor (the flashing vertical line) appears in the top box labeled Lat. We delete the number that is in the box using the **Del** key. Using the number key at the top of the keyboard, we type in the Latitude of our starting location. We type the number of degrees (without a degree sign) followed by the number of minutes, followed by a decimal point, followed by hundreds of a minute (Note: You may need to press N or S if you need to change it.) We press **Enter**. The program supplies the degree and minutes sign and the N as soon as you press enter.



Next, we press the **Tab** key again to move the text cursor into the *Long.* box and then enter the Longitude of our starting location in a similar fashion. Clicking on the *OK* button will position the boat icon at the starting location on the screen.

First, we will leave a mark at the position on the plotter screen that corresponds to our starting point. To do this, we first press the **Esc** key to make sure that the cursor is turned off. Then, we press **F7** to call the *Add mark at Ship* dialog box. We can press **Enter** to make a mark with the symbol and color already selected. To change the symbol or the color, we

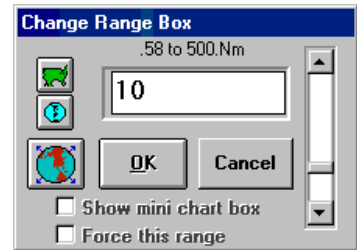


use the **Tab** key to move the selected function from the *OK* button to the *Cancel* button by pressing it once and then on to the mark symbol by pressing the **Tab** button again. Now, we can use the arrow keys to select the symbol we want to leave. (The anchor symbol is the fourth from the right.) Pressing the **Tab** key again will allow us to use the arrow keys to select a color for the mark. Pressing the **Tab** key again selects the button and pressing **Enter** makes the mark with our choice of symbol and color at the starting position for our imaginary trip.

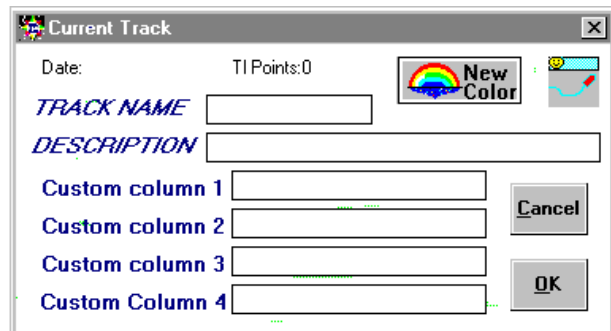
Next, we press **Shift-F4** to call the *Dead Reckoning* dialog box again and this time we set our speed and course. We use the arrow keys to adjust the heading and then press the **Tab** key twice to change to the speed scroll bar. Using the arrow keys again, we set the speed of the vessel.

Tutorial

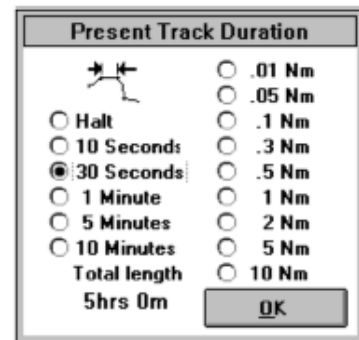
As we move into open waters we find the range we are on too small and change it to a 10-mile range by pressing **F4** that brings the *Change Range Box* to the screen. We can type in the desired range and press **Enter** or we can press the **Tab** key until the button on the scroll bar on the left of this box is selected and use the arrow keys to adjust the range to 10 miles. Then we press the **Tab** again until the *OK* button is selected whereupon pressing **Enter** will cause the screen to redraw with a range of 10 nautical miles (from the bottom to the top of the screen).



After a while, we see bait and good-looking water and so we decide to put the gear down and to name the track so that we can refer to it later (*Note: The name can contain no more than eleven letters*). Pressing **Ctrl + F6** calls up the *Current Track* dialog box. The text cursor is in the *TRACK NAME* box and we type a track name (SLMN1, for example) and press the **Tab** to move the text cursor to the *DESCRIPTION* box. We then type the description of our track and press **Enter**.



Now, the program is automatically recording the track under the name SLMN1. We can adjust the plotting interval to obtain the detail we want. Since the salmon seem to be in very small groups, we decide to use a 0.01 mile frequency. Pressing **F5** calls the *Present Track Duration* dialog box. We use the arrow keys to move the dot to the value we want and press **Enter** (*Note: to move the dot from the distance column to the time column, use the arrow keys to go to the upper or lower end of the line and then press the same key one more time. The dot will then change columns.*) The value of the total length of the track is presented in the lower left of this dialog box and the tracking interval is shown in the upper right of the plotter screen (*Note: The default number of points per track is 600 but this is adjustable from 1 to 2,000. In the present example, plotting every 0.01 mile will make the track length 6 miles and at our salmon trolling speed of 2.5 knots. This will take about 2 hours and 24 minutes.*)



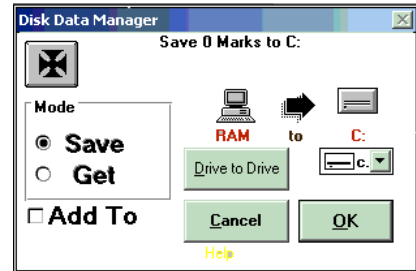
We want to set up a tack line to follow before we put our gear in the water. First call the tack line option by pressing **Alt, O** then **S**. We use the arrow keys to place the Cursor icon on the origin (usually the boat) then press the space bar. You should see an **A** on the screen. Now use the arrow keys to move the cursor a mile or so away in the direction you want to tack and press the space bar again. We can go beyond the current screen by releasing the key when the cursor reaches the edge. The screen will redraw and we can continue moving the cursor. After setting the **B** end the screen will redraw with the vessel in the middle. As we follow the dashed line toward the **B** end, the range and bearing are displayed at the bottom middle of the screen. When we turn around and head for the **A** end the computer will automatically switch and display the range and bearing toward that end.

Chapter 1, Getting Started

Shortly after setting the gear, we have a strike on the very top of the water. To mark this spot, we first press the **Esc** key to make sure that the cursor is turned off and then we press **F7** to call the *Add mark at Ship* dialog box. We select the "fish at the top of the water" icon to indicate that the fish was caught near the surface and a dark color to indicate a large size. The speed we were traveling when the fish was caught is shown in the upper right-hand corner of the screen and was recorded as part of the track. This will enable us to come back to the same place at the same speed later (Note: The temperature of the water or its depth could be recorded if the appropriate signals were available to the program.)



To save these marks to disk for permanent storage, we press **F9** to call the *Disk Data Manager* dialog box. Then we press **Enter** to save the marks to the hard disk. To save the current track we press **F6**, which saves the track that is in RAM memory to the hard disk and continues recording the same track.

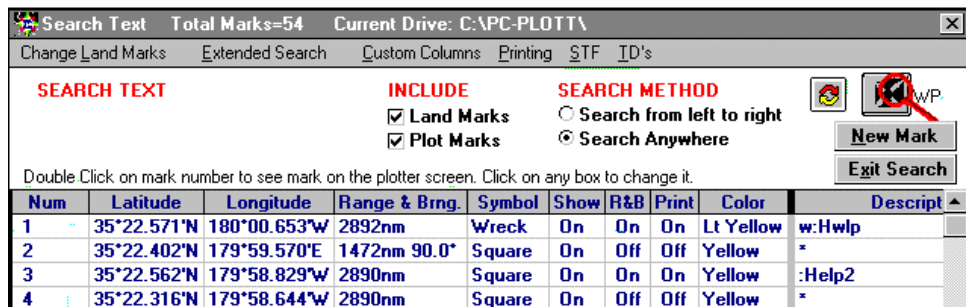


Since we are tacking back and forth in a small area we decide to turn previous tracks off to reduce the clutter on the plotter screen. We do this by pressing the **Alt** key to select the plotter menu bar and press **T**, the underlined letter in the word *Tracks*. This brings down the Tracks menu.

Pressing **P**, the underlined letter in *Previous . . .* calls the next menu which contains the *Select On?* option. Pressing **S**, the underlined letter in *Select On?*, brings the change icon to the screen and turns previously turned-off tracks black. We use the arrow keys to move the circular arrows of the change icon over the track you want to turn off and press the space bar twice. These turned-off tracks will disappear when we press the **Esc** key to confirm our changes.



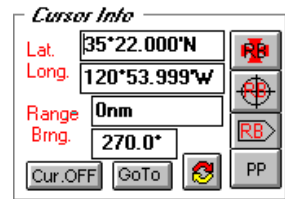
Later in the day, we want to turn this track on so that we can see it to retrace our path. We press **Alt**, then **T**, then **S** to call up the *Track Search List* (or **shift-F9**). The flashing cursor is in the *Search Text*



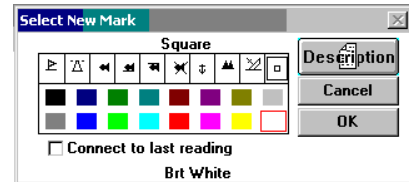
box in the upper right of the list. We type in the name of the track we want to show (SLMN1) and this track is displayed by itself in the *Track Search List*. Pressing the **Tab** key repeatedly moves the cursor or highlight until *Exit* is highlighted. Pressing the **Tab** key one more time activates the list itself. Now pressing the **o** arrow key moves the highlight to the *No* in the *Show* column and pressing the space bar changes this *No* to *Yes* and when the screen is redrawn, the track is shown. Press the **Esc** key to return to the plotter.

Tutorial

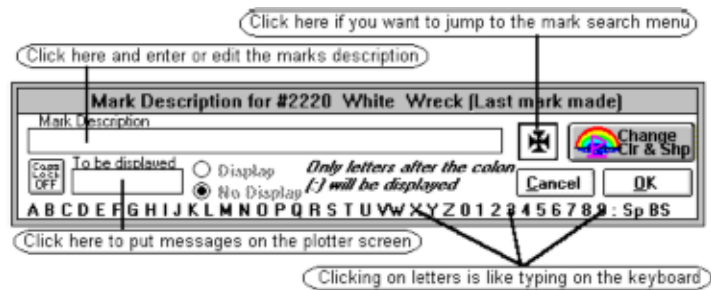
While trolling for salmon we observe a boat pulling rock cod about 1.5 miles 287 degrees magnetic from our present position. To record this fact, we first turn on the cursor by pressing **F2**. This changes the arrow on the screen into a circle with a cross in it. Next, we see the text cursor flashing in the Lat. box of the *Cursor Information* box. (The bearing and range of the cursor can be found in the last two lines of the box labeled *Cursor Information*, which appears on



your screen when you turn the cursor on.) We need this cursor in the *Range* box so we tap the **Tab** key several times until it is flashing in the *Range* box. Now we use the numerical keys to enter 1.5 for 1.5 miles and press the **Enter** keys. Now we press the **Tab** key once more to move it to the *Brng.* box and enter in 287 and press **Enter** again. Pressing **F7** brings up the *Add mark at Cursor* dialog box and



this time we select a mark that looks like a fish with an **x** over it and a red color. Using a combination of arrow keys and the **Tab** key makes the selection. When the desired mark type and color are selected as indicated by the border around them, press **Enter**. In order to add a description of this mark we first remove the cursor from the screen by pressing **F2** (Note: **F2** toggles the cursor on or off and **Esc** turns it off.) We bring the change icon (which is a pair of curved arrows) to the



screen by pressing **Ctrl+F8**. We use the arrow keys to place this icon over the mark and press the space bar twice to call the *Mark Description* dialog box.

(Note: Pressing the space bar twice is equivalent to clicking once with the mouse.) We type in our mark description, "**Bounty bottom fishing**" and then press the **Tab** key repeatedly until the OK button is highlighted. Then we press the space bar and the dialog box disappears. Press the **Esc** key to resume tracking (same as clicking the *Stop Changes* button).

After some more tacking around in the area, the plotting screen becomes cluttered and we decide we would like to clear it of the recorded track. We press **Shift+F5**, which changes the mouse arrow into the change icon. The screen will redraw with the tracks that are currently off shown in black. Using the arrow keys we maneuvered the two curved arrows of the change icon over the track we wanted to hide and pressed the space bar twice. After a few seconds this track changed color to black indicating that it is hidden. (Tracks that are showing black will be hidden and those showing color will show on your screen.) We pressed the **Esc** key to exit this program function. The screen was then redrawn without this track.

The bite tapers off and we decide to quit fishing and go back to the anchorage where we can make some adjustments and make up some gear. To go directly back to the anchorage, we press **F2** to turn the cursor on and move the cursor (using the arrow keys) to the anchor mark we left on the plot to indicate where we anchored. Press the **Tab** key several times until the *GoTo* button on the cursor box is highlighted and press **Enter** to set it as a waypoint. The range and bearing for the anchorage is displayed at the bottom. We steer the bearing indicated to return to the anchorage.

Practice using the particular features of *P-Sea WindPlot* that are important in your fishery. Take several imaginary fishing trips and try to make them realistic. It is much better to take care of any problems that develop when real fishing data is not at risk.

If you do not know how to perform an operation, press **F1** for on-line help (**Note:** hyper-text help is no longer available on Visa or Windows 7, in these cases you must use the help's index to find your help items), or use the Quick Reference section of this manual. If you do not understand the directions you find in that section, try reading the General Information section of this manual. If you are not comfortable with Windows, consult your Windows manual. This manual assumes familiarity with DOS and Windows.

One of the best ways to find out how to perform an operation is to use the online Help and it is important that you become familiar with this feature of the program.

Use on-line Help

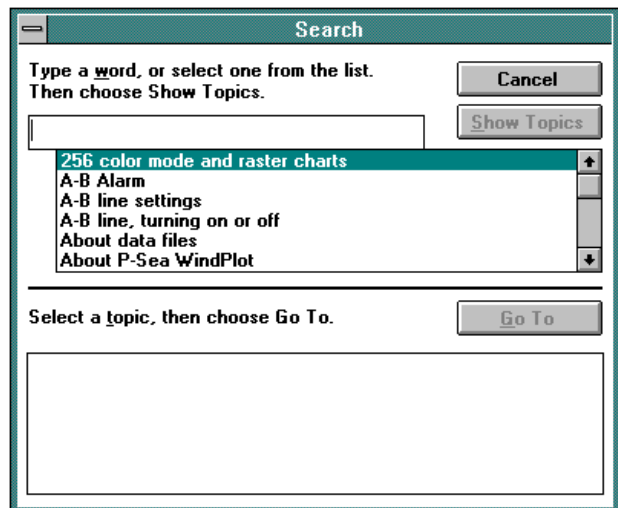
When you have a question about how to perform a task, *P-Sea WindPlot's* **Help** system can usually answer the question. We describe three ways to use this system.

- % Search for Help topics
- % Use How To
- % Use context-sensitive Help (*Not available for Windows Vista or 7*)

Search for Help Topics

Suppose you want to install a chart and do not know how. Click on Help in the Menu Bar and then on Index in the menu that drops down; either will call the *P-Sea WindPlot* Help screen (Note: **F1** key does not work on Windows 7 or Vista and only the help index will work).

- 1 Click on Search near the top of this screen. This calls the following dialog box.
- 2 Type in the word **chart** and click on the Show Topics button (if available).
- 3 Use the scroll bar to find and then highlight *Charts, adding new ones the proper way*.
- 4 Then click on the Show Topics button again. This results in the topic *Adding charts to hard drive* appearing highlighted in the bottom box.
- 5 Now click on the **Go To** or **Display** button. This calls a complete description of adding charts to the hard disk.



Tutorial

Use How To

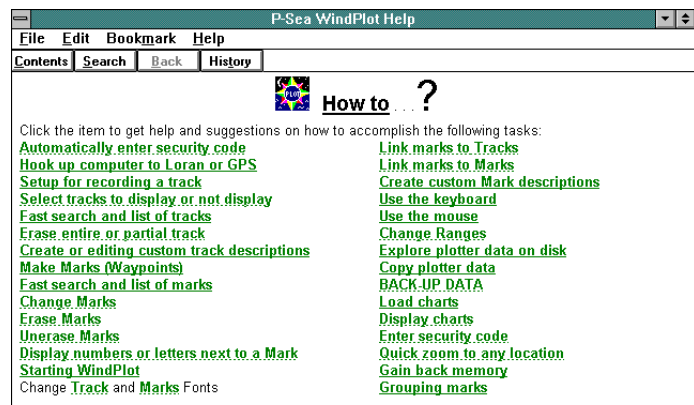
You can use **How To** find information on most of the features of this program.

- 1 Start by clicking on **Help** in the Menu Bar.
This brings down a menu.

- 2 Click on **How To** in this menu to call the following screen.

Clicking on any of these items will call help in doing the task.

If the topic is not listed, click on the **Search** button at the top of your screen and proceed as directed in the section *Search for Help Topics* above.



Context-sensitive Help (Not available on Windows 7 or Vista)

P-Sea WindPlot's help system is context sensitive which means you can get help based on the area of the program in which you're working. Pressing the **F1** key brings up this help. Try this for example, say there is an item in the menu bar and you are not sure of what it does, press the **Alt** key once so that one of the menu items becomes highlighted. Next, use the right, left, up and down arrow keys to move the highlight around to the menu item you are curious about. Then press **F1** and the online help will be brought up on the screen for the menu item you highlighted.

For example, if you want to link two marks you would logically click on Marks in the Menu Bar to call down the Marks menu. Then you would probably find Link and click on it. If you are unsuccessful in making the link, you will find the *Mark error message!* dialog box on your screen. Click on the **OK** button in this box and press **F1** to call context-sensitive help. (You may have to repeat pressing **OK** and **F1** to get the message to appear.) This screen describes linking marks in some detail.

Quitting the program

Exit the program by:

- 1 Clicking on *Data* from the plotter menu bar.
- 2 Clicking on *Exit*, the last item in this menu. When you quit in this manner, the program will check to see if all your files have been saved safely to disk before ending the program. If any files have been changed or added and not saved, it will ask if you want to save them before quitting. (You can also quit the program by quitting Windows properly. See your Windows manual for instructions.)
- 3 Before you turn your computer off, quit or shut down Windows.

General Information

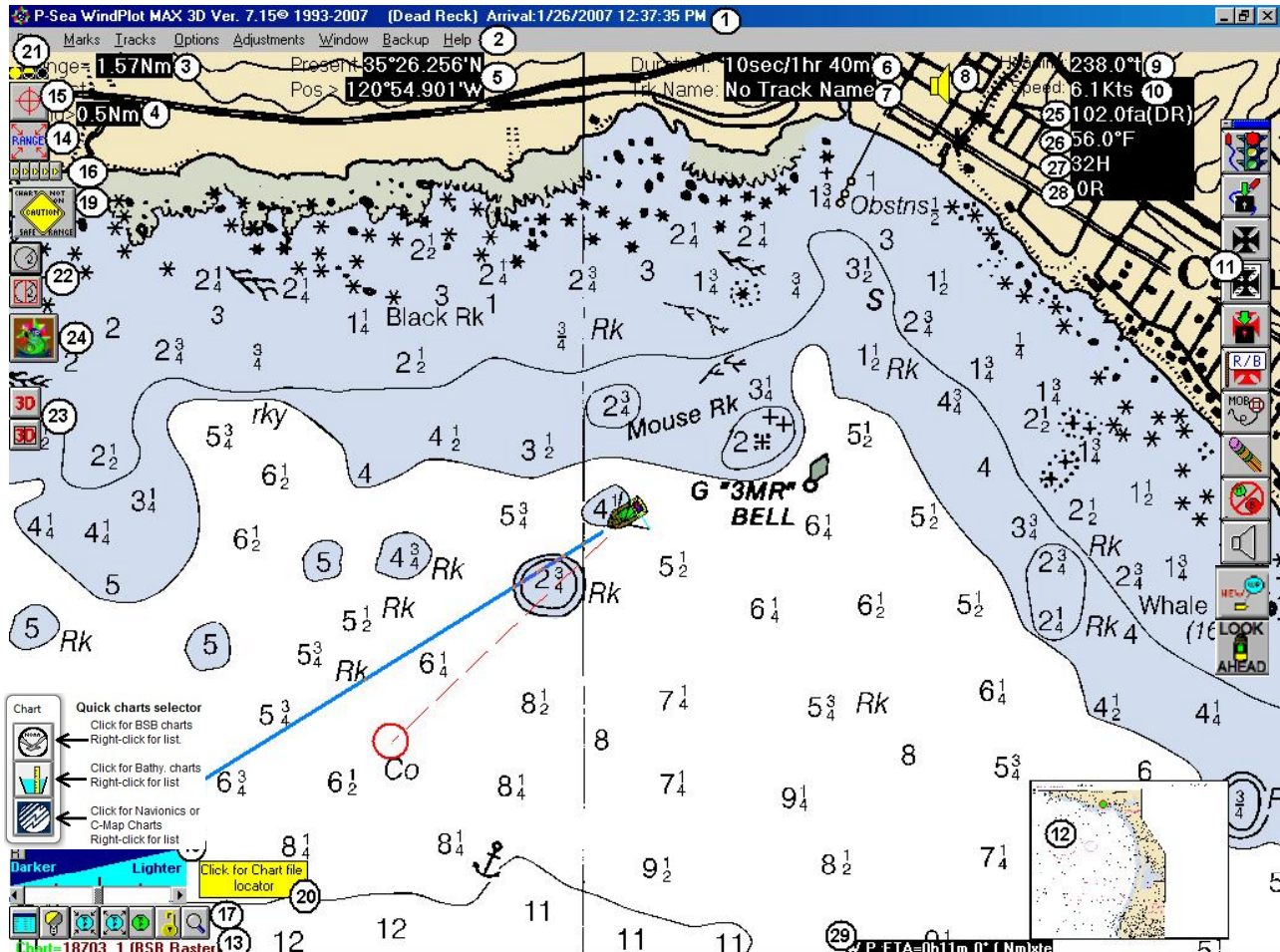
In this chapter you will find a description of the most important features of P-Sea WindPlot. These features are described in the following order:

- The plotter screen layout.
- The Menu Bar.
- The Screen Hot Spots (mouse-click sensitive).
- The Button Bar.
- Digital Voice.
- Keyboard assignments.
- Short Menus.
- Long Menus.

Screen Layout




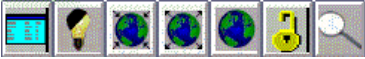
Screen Layout

A typical plotter screen is below. Beginning at the top left of the plotter screen and proceeding across and down in a clockwise manner, we describe the features visible in this figure.



- 1 Title Bar** – In addition to showing the name and version of the program, this bar can report the current date and time. When a waypoint or route is assigned, it will show the estimated date and time of arrival at present speed. It will display TD calibration data when editing TD calibration points. Double clicking on the **X** at the right end of the **Title Bar** or clicking on *Exit* in the *Data* menu will terminate P-Sea WindPlot. Clicking on the **Sizing buttons** at the right end of the **Title Bar** will change the size of the window and can reduce the P-Sea WindPlot window to an icon. You can then run some other Windows program while P-Sea WindPlot continues to run in the background making a track and sounding alarms as required. **NOTE:** It is recommended that for Windows 7 and Vista to turn any printing in the title bar off as it may cause Windows Explorer to crash after a period of time.
- 2 Menu bar** – This contains a list of menus available by clicking on the name. Each of these menus will be described later in this chapter.
- 3 Range** – In the upper left of the chart you can see that the current range of the screen is 1.57 nautical miles as measured from the top to the bottom of your screen.

Chapter 2, General Information

- 4 **Distance to Land Indicator** — Just below the range you will find the distance to the closest land from the ship's position. It is 0.5 nautical miles. This near land value is calculated using a P-Sea vector chart of the area that is installed Otherwise it uses the US big or P-Sea world map that is included with every program. The function must be turned on and is changed via the P-Sea vector menu.
- 5 **Present Position** — Moving to the right you see the present position of the ship. It is *35 degrees, 21.754 minutes N Latitude* and *121 degrees, 02731 W minutes Longitude*. It can be changed to show the position in Loran C TD's if desired by clicking on the readout itself. It will indicate position data is being received by WindPlot if and when a GPS or Loran is connected and WindPlot. It does this by a blinking asterisk (*) next to the right-most, top line of the position readout.
- 6 **Duration/Remaining length** — This value of *10 sec/1hr. 39m.* is found to the right of the present position. It means that a track point is being plotted every 10 seconds and that the remaining time left on the present track is 1 hour and 39 minutes.
- 7 **Track Name** — The name of the current track is displayed here. *No Track Name* is the default (as shown) when the current track needs to be given a name.
- 8 **Alarm icon** — This icon looks like a loudspeaker. Its presence indicates that one or more of the program's alarms have been set. Clicking it stops it if the alarm is sounding. Right-click turns all alarms off.
- 9 **Heading** — This information can come from the NAV. receiver. It can also come from a fluxgate compass. (This type of compass can also control the vessel's heading indicator.) Or, if the *Dead Reckon* feature is engaged, the Dead Reckon course will be shown. P-Sea WindPlot can correct the heading reported to compensate for magnetic variation. The ship's heading shown on the screen is 301 degrees true.
- 10 **Speed** — This shows the vessel's current speed as reported by the NAV. receiver or, if the Dead Reckoning feature is engaged, the Dead Reckoning speed will be shown. The speed shown is 4.2 knots.
- 11 **Button Bar** - There are two button bars which can be seen on the right side of the screen is a collection of buttons with icons. Clicking on one of these buttons with the mouse provides a shortcut to some of the most commonly used functions.
- 12 The lower right of your chart contains an **overview of the chart you are using**. The ship's position is indicated by a white dot, which is left of the coastline, and below the center in this case. This only works for vector charts and BSB raster charts.
- 13 The **number of the chart** being used appears in the lower left of the computer screen followed by "Vector" or "Raster" indicating the type of chart.
- 14 **Range Button** — Clicking on this button brings a **Change Range** dialog box to the screen. 
- 15 **Cursor Button** — Clicking on this button toggles the cursor on or off. When the cursor is on, a mouse-controlled circle with cross hairs appears on the screen. 
- 16 **Insta-Zoom buttons** — These only appear when you have BSB or NOS charts installed and turned on. There will be from 1 to 16 buttons depending on how many charts are available for the area you are in 
- 17 **Range, and chart control buttons** — There are 7 buttons on this bar. The leftmost button will call either the Vector or 

Screen Layout

Raster control menus depending which was last looked at. The next button, the invert button, will change the color of the background and foreground. The colors vary depending on what type of chart you are displaying. The next two buttons will scale charts in or out or simply change the range if there are no charts showing. The fifth button will call up the P-Sea world chart. Once the world is showing, just point and click to jump to any spot in the world. The sixth button is used for raster charts. It is a padlock button and when closed, the current chart will not change, otherwise the charts will change by them self as you go from one range to another. The last is the chart-finder. Click it and all available types of charts are listed. Then just enter the number to turn it on.


- 18 **Shader box** — This is the shader box that is used for several types of charts. It allows you to dim out or brighten up the chart that is showing in the background. The shader box only appears while the mouse arrow is over one of the chart buttons. Click the “Reset” to bring the picture back to normal.



- 19 **Chart Caution Button** — This button only appears when using raster charts. It indicates that the current chart is not the best chart to use or that the current chart has been changed by the computer to get the desired range.



- 20 **Help Window** — This window appears with a yellow background when the mouse arrow is passed over different items on the plotter screen with different messages for each item. The message tells what will happen when you click on the item the mouse is on.

- 21 **Dimmer** — These three dots  control the over-all brightness of P-Sea WindPlot and Windows. Click the full sun, the left-most dot, for full brightness (default when program starts), the center dot for half brightness and the right dot for darkest. **Some computers are not compatible with this option and should not be used without restarting the computer to bring it back to full brightness.**

- 22 **Radar Option Buttons** – These two buttons appear IF you have purchased and entered the RADARpc option code. The top button launches the radar in FULL SCREEN mode while the lower button launches the Radar/Plotter split mode.



- 23 **3D Option Buttons** – These two buttons appear IF you have purchased and entered the 3D activation codes. The top button launches the 3D program in FULL SCREEN mode while the bottom button launches the Plotter/3D split screen mode.



- 24 **P-Sea FishFinder Option Button** – This button launches the FishFinder program IF you have purchased the P-Sea FishFinder activation code.



- 25 **Depth Readout** – Appears ONLY when depth information is available for track data. This can come from the P-Sea FishFinder, 3D program or external RS232 connection to a depth sounder.

- 26 **Temperature Readout** - Appears ONLY when digital temperature information is available for track data. This can come from the P-Sea FishFinder, 3D program or external RS232 connection to a depth sounder or temperature gauge.

- 27, 28 **Hardness & Roughness Readouts** – Appears only when Hardness and Roughness is coming from the P-Sea FishFinder. #27 can also come from a JRC depth sounder.

- 29 **Waypoint information**- Appears anytime a waypoint is set.

Chapter 2, General Information

There are other features, which may appear on the plotter screen that are not discussed above. These will be described in the Features section of the manual.

Menu Bar

The menu bar is number 2 in the description of the screen layout just below the title bar.

Data Marks Tracks Options Addjustments Window Backup Help

(See the previous section.) Clicking on any of the items in this bar will bring down a menu of items that can be clicked on to obtain some result. (Go ahead and click on them one by one. Except for the Backup dialog box, you can make them disappear by clicking on the next item or by clicking outside the menu. To remove the Backup dialog box, click on *cancel* or press the **Esc** key.) For example, clicking on the first item, Data, will help you manage your files. Clicking on it brings down the menu shown here. (Press **F1** while the menus are on will give you an explanation of the menu.)

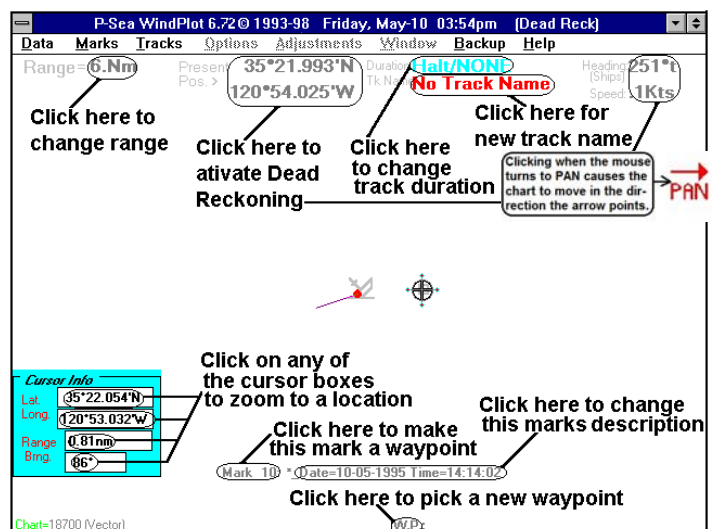
Clicking on each of these menu items will bring down still another menu helps you to create, open, save, and view files or to quit the program. You will find all this discussed in the section of this chapter that discusses the **Long Menu**. If you are new to the program, you may want to change to the short menus to get started more easily. If you do, click on *Adjustments* in the menu bar and then click on the last item in the menu that comes down, *Short Menus*, the menu bar will then change to look like this:

Short menu=> Quit Marks Tracks Options Long Menu Help

This menu bar will be discussed in **Short Menu** section of this Chapter.

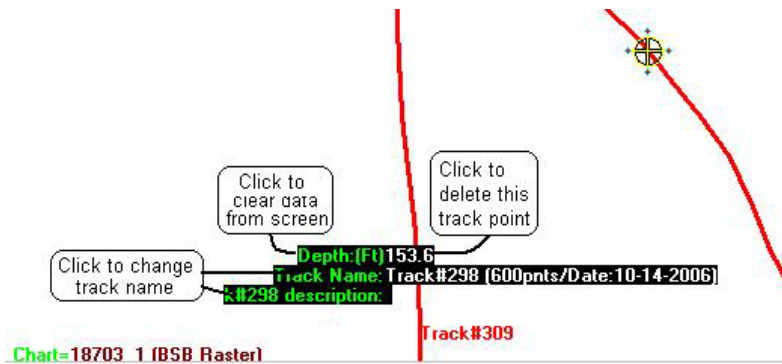
Plotter Screen Hot Spots

When in normal plot mode (cursor off) there are many areas on the plotter screen that are sensitive to the mouse arrow which are called hot spots. A small yellow message box will appear whenever the mouse pointer is on one of these spots. The message within the box will give a hint as to what will happen if the mouse is clicked. Please note that **you must have the cursor off** for most of the hot spots **except** when you place the cursor on a mark and make it a waypoint or change its description.




Screen Layout

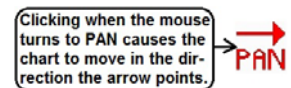
If the cursor is placed over a track, it will display the track data for that point instead of the mark data in the lower-middle part of the screen as shown here. Clicking different labels will allow you to change track name, description or even to delete a single track point that is closest to the cursor.



Panning


If you wish to view the charts, marks and tracks that are outside the current screen you can do it by panning or moving the view area out side of the vessels current location. To do this you can click the cursor button  located just above the range button in the upper-left of the plotter screen then drag it to the edge of the screen with the mouse in the same direction that you want to view. You can keep panning by repeating the dragging procedure as many times as you wish.

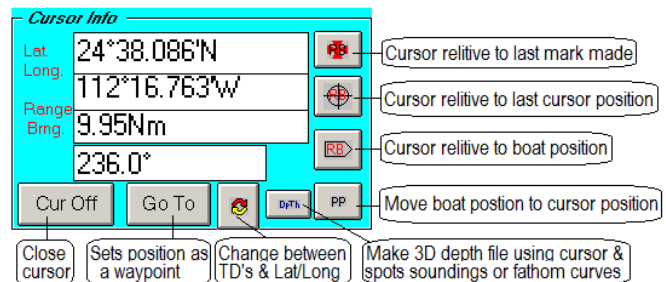
There is a shortcut to starting the panning feature. Note that the regular mouse arrow changes to the word PAN and a arrow pointing a direction. If you click the mouse when you see this happen the program will automatically turn the cursor on and pan in the direction indicated by the arrow. This feature can be disabled by un-checking “Use Panning Arrows” in the “Window Fonts & Units” section of WindPlot’s “Windows” menu.



To return back to the boats position you can press (**F2** or **Esc**) on the key board, click the *Cursor Off* button on the *Cursor Info* box or click the cursor button.

Cursor Info Box

Pressing **F2** or clicking the  cursor button located just above the range button in the upper-left of the screen causes the *Cursor Info* box shown here to be displayed and a yellow bulls-eye to appear. The box gives current **cursor position** in either Latitude & Longitude or Loran TD’s by clicking the button with red and yellow arrows. You can use the mouse to drag the cursor anywhere you want. **Dragging the cursor** off of one side of the screen causes the plotter to move (PAN) in that direction. You will also notice the mouse arrow change to **PAN** in red letters when as you get close to one edge of the screen, clicking the mouse when this appears will cause the cursor to be automatically turned on (if not already on) and the screen will move in the direction of the arrow shown next to the word PAN. You can also use the **arrow** keys on the computers keyboard to move the cursor off of the screen. You can also **manually enter in a cursor position** by clicking in the LONG box then clear the box and enter in the new the longitude. Do the same for the Latitude. You must follow each LAT with N or S and the LONG with either a E or W in order for the position to work. You can also **enter a range or bearing to make the cursor move**.

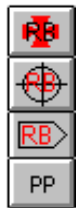


Setting a waypoint can be as simple as using the cursor to pan to where you want to go and when the cursor bulls eye is right where you want to go just click the “GO TO” button to set it as a waypoint.

The *DpTh* button is described in the 3D section. It is used to put the cursor on spot soundings or depth contours to make a 3D depth file used to rebuild the 3D bottom display.

To reference a mark, simply place the cursor on any mark until the details of it appear on the lower-middle of the plotter screen. When the cursor is over a mark or a track you will get this info as well and you will also see a *Delete Mark* or *Delete Track* button appear that will allow you to **erase either the mark or track** that the cursor is over.

There are 4 shortcut buttons that appear along the right side of the cursor box that will also change how the cursor **R**ange and **B**earing (**RB**) is calculated. The top button shown on the right here gives you the **R**ange and **B**earing to the last mark made. The next calculates the **RB** from the last position of the cursor. The third button calculates the **RB** from the vessels position to the cursor (default). And the last sets the vessels position to match the cursor. **This is only to be used in Dead Reckoning mode.** If the GPS is still going and you click this button the boat will return back to where the GPS is showing.



Button Bar

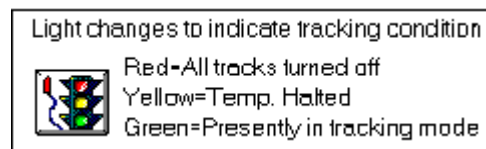
The Button Bar is shown at the beginning of this chapter. It is item 11 in that figure. Although it normally appears on the right side of the screen, it can be moved by clicking on the minus sign in the small box on the top left of the button bar. (See the figure to the right.) This will bring a small dialog box onto the screen. Click on *Move* and a cross with arrow points will appear whenever the mouse pointer is pointing to the **Button bar**. Now you can drag (hold down the left mouse button and move the mouse) the **Button bar** wherever you want it. Click on *Set Size* and enter a number between 0 and 9 where 0 is the smallest and 9 is the biggest. This not only **set the size of the Button Bar but all the rest of the short cut buttons** on the plotter screen as well.



What the buttons do:

The button bar provides shortcuts to some of the most commonly used features of the program.

Clicking on the top button, the traffic light, will halt tracking (we can also press the **H** key to toggle between halt and tracking). Clicking a second time will continue the present track or start a new one, if you click on *yes* in the dialog box that appears. If the light shows yellow, the tracking is halted: if it shows green, tracking is taking place. The light is red when all tracks are turned off from the *Window* menu. The blue trail behind the red boat will appear in different colors when present track is set for multiple color mode.



Right-click to turn it OFF

Right-clicking on the track light, make mark, R/B flag, AB line, Waypoint, MOB and Anchor turns these options off.

Screen Layout

Clicking on the second button saves the present track to your hard disk.



Clicking on the third button will place a mark at the ship's position if the cursor is off or place a mark at the cursor's position if the cursor is on.



Clicking on the fourth button calls a dialog box that allows you to enter a description of the last mark made. You can also enter its name, which can be displayed, on the screen.



Use this feature **after** you have made a mark and **before** you save it. If you click on this button without making a mark, the dialogue box will display the description and name of the last mark saved.

Clicking on the fifth button saves all marks currently in RAM to the mark default drive.



Clicking on the sixth button allows you to set R/B flags from marks. These flags show the range and bearing of the mark from the ship's position. To turn this function off, click on the *Stop Changes* button in the upper left portion of your screen.



Clicking on the seventh button, the **Man Over Board** button, causes an alarm zone to be setup around the current vessel position and the audible alarm is sounded. Press the **Esc** key or click on the alarm symbol at the top-right of the screen to stop the alarm.



Clicking on the eighth button, the erase track button, redraws the screen with all tracks that have been erased in black. Simply click on any black track to un-erase it and click on a track color that isn't black to erase it. Click the "*Stop Changes*" or press the **Esc** button when done.



Clicking on the next button down allows you to draw a line on the screen between two points. Each of these points can be established by double clicking when the cursor is on an endpoint of the desired line.



Clicking on the 3rd to last of the buttons calls a set of seven alarm buttons shown to the right here. Each of these can be used to set a specific alarm and calls the following buttons.



Clicking the second to last button either turns a waypoint off or calls the waypoint list to set a new waypoint.



Clicking on the last button changes between LOOK-AHEAD and CENTER BOAT modes. How much it looks ahead depends on the "*Self-Centering*" setting in the "*Adjustments*" menu.



Clicking on the first of these **Alarm Buttons** calls a dialog box that allows you to set a distance from the vessel to a mark (or marks) and to tell the alarm to go off if the distance to the mark(s) is less than the set distance. The alarm uses any mark(s) showing a range and bearing flag.

Button Bar, Chapter 2

Clicking on the second **Alarm Button** calls a dialog box that allows you to set the distance from either of the two ends of an A-B tack line that will trigger the alarm. This will automatically activate the A-B line if none is set or it is turned off.

Clicking on the third **Alarm Button** calls a dialog box that allows you to set the distance from a **Waypoint** at which the alarm will go off.

Clicking on the fourth **Alarm Button** calls a dialog box which allows you to set the distance from land at which the alarm will go off if either too far or too close to land. It works either from a loaded vector chart or the US vector map that is built in.

Clicking on the fifth **Alarm Button** calls a dialog box that allows you to set the distance the vessel can drift from its present position before the alarm goes off.

Clicking on the sixth **Alarm Button** calls a dialog box that allows you to select a color that will activate the alarm when the vessel crosses the color.

Clicking on the last **Alarm Button** calls a dialog box that allows you to select a color which will prevent the alarm from going off (alarm sounds when the vessel leaves a color).

2nd Button Bar

There are two button bars available to the WindPlot program. The second button bar gives some slightly different buttons that would be more desirable to the non-commercial user.

To activate the 2nd button bar or to return to the original, click on *Windows* in the WindPlot's menu bar then click on *Button bar*. When you click on *2nd Button bar*, the one or the other button bar will pop up. The 2nd button bar is shown here to the right.

Some of the buttons are the same on both bars. This button bar starts out with the *New Route* button. Click this button to create a new route. It works in conjunction with the waypoint XTE and arrival alarms for when you get too far off course or reach your destination. Check out *Waypoints/Routes* selection in the *Options* menu for further routes and waypoint setup and for selecting other methods of entering them.

To make a new route, click the top *New Route* button. The plotter screen will redraw with the cursor turned on. Now move the mouse to the start of the route you are making. You can use the mouse or keyboard to pan as you normally do or enter the Lat/Long in the cursor box. Double-Click the left mouse button to make the first node then move the mouse to the next node and Double-Click again. Repeat this as many times as necessary and click on the *Stop Changes* button in the upper left or press the **Esc** key when finished. The alarm will sound the **next** time the vessel gets off of the route line or gets within the circle of each node.

To erase a node, while still creating, simply place the mouse arrow on the node and RIGHT-click. You will be asked if you want to erase the node by number, answer *Yes*, then the node closest to the mouse



Keyboard Assignment

arrow is erased. Use the *Routes/Waypoints* menu to erase a node after it's created.

The next button for saving both the current track and all marks to disk on the default drives in one step.



The next button makes a new mark at either the vessel's position or at the cursor's location if the cursor is turned on. The new mark timer will make a mark after a period of time if OK is not clicked.



The next button will generate a new waypoint. Click it and you are taken to the *Mark Search and Edit* menu. Find a mark you want to make a waypoint and click the number of the mark in the first column in the list. Then click on *Yes* to confirm your choice.



Then the next button down will set the arrival alarm and XTE alarm for the waypoint. It will also ask if you want to turn on the 3D XTE box.



The rest of the buttons are just like their counterparts on the first button bar.

Old Digital voice

If you have a soundboard properly operating you will hear several voices that come from the plotter program. If you make a mistake you will hear a Oh-Oh! that sounds like Betty Boop. The other voices announce all the different alarms, speed and course, range and bearings. You can use a cheap microphone and plug it into the sound card to make your own recording. Use the Windows sound media recorder in the Accessories group (looks like a mike icon) to make your recording and save the files in the PC-PLOTT directory according to the following names:

Name	Used for	Other Names	Other Names
OHOH.WAV	When mistake is made	DEGREES.WAV	POINT.WAV
NEALAND.WAV	Near land alarm	MINUTES.WAV	HEADING.WAV
MOD.WAV	Man Over Board alarm	RANGE.WAV	SPEED.WAV
ABALARM.WAV	AB alarm	NM.WAV	KNOTS.WAV
CLRBORDR.WAV	On/off color alarms	READY.WAV	PRESENT.WAV
ANCHWTCH.WAV	Anchor alarm	POSITION.WAV	TRACK.WAV
CRABWTCH.WAV	Crab watch alarm	NORTH.WAV	SOUTH.WAV
MARKPROX.WAV	Mark proximity alarm	EAST.WAV	WEST.WAV
WPARRIVE.WAV	Waypoint arrival alarm	REMAING.WAV	HAULTED.WAV
OFFCORSE.WAV	Cross-track error alarm	HOURS.WAV	BEARING.WAV
ZERO.WAV . . . NINE.WAV	Numbers 0 through 9	TEMP.WAV	DEPTH.WAV

Use the *Window ' Sounds & Unit Conversions* menu to change which voice is active at any time and the interval that they are repeated at. You can also select the NEW Microsoft voice. If the new voice does not work then you need to set it up in the Windows Control Panel and select SPEACH.

Keyboard Assignments

P-Sea WindPlot can be operated with the mouse (except for entering certain types of data), but use of the keyboard can speed some operations. The program can also be operated without the mouse using the keyboard alone although this is not always convenient. Many of these keyboard shortcuts appear in the menus called by mouse clicks. For example, when you click on *Options* in the menu bar to call the Options menu, you will see **Shift+F4** to the right of *Dead Reckon*. This indicates that pressing the **Shift** key and the **F4** key at the same time will call the *Dead Reckon* dialog box without using the mouse.

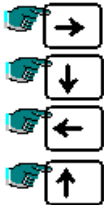
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The use of the keyboard is described below:

- % Use the **Alt** key to activate the menu bar followed by the underscored letter to call a menu.
 - % Use the **Esc** key to get out of a menu or just about any function (PANIC BUTTON).
 - % Use the **Tab** key to move from one item in a dialog box to another (as indicated by flashing or highlighting).
 - % Press and hold an **arrow key** and the screen will clear with just the dot (or boat icon) left on the screen. The dot (or icon) will move in the direction of the arrow and it will stop and remain there when you release the key. Then the screen will be redrawn. (This does not move the boat's position on the chart but changes the viewing area.)
 - % Press the **Home** key to change the view area so that the vessel is in the center of the screen.
 - % With the cursor off, hold the left mouse button down and move mouse to get instant cursor.
- You can also use the keyboard to maneuver around in the tracks and marks list. The **Home** key brings you to the first track or mark. The **End** key will take you to the end of the list. The **PgUp** and **PgDn** keys will move through groups of 10 tracks or 15 marks at a time. The **up/down arrow** keys will move one track at a time and the **right/left arrow** keys will move one column.

(* = cursor must be turned off, with no menus on)

Specific keyboard assignments are presented below.

Key	Result
Esc	Exit a dialog box without making changes or turn off a function without making further changes. The escape key will get you out of any situation in the plotter program (like chart lock or over zoom) and back to the plotting screen. Consider it the PANIC BUTTON!
A-Z	Any key A-Z can be programmed to make any mark in any color you want. In WindPlot's menu bar click on <i>Marks ' Search & Edit</i> then in the <i>Search & Edit</i> menu bar click on <i>Custom Options ' Keyboard</i> . Then just enter the key and mark you want when asked.
	<p>In the plotting mode, they move the area viewed on the screen. (See the paragraph on the previous page.) Otherwise, they move the icon or the cursor if it is on.</p> <p>Changes the position (or value) of scroll bars.</p> <p>In Text mode (within a text box) it allows you to move the text editing "I" bar from one letter/column to another.</p>
T	*Set up two TD GRI/Slaves using the BIGTD and BIGTD1 files in the Grid Setup menu. Then press the "T" key when you want to change between the BIGTD and BIDTD1 files.
H	*This key will toggle between halt and tracking

Short Menus, Mark Menu

+ (&) -	Use these keys to increase or decrease the current range except when in the dead reckon mode, then it controls the vessels speed.
PgUp PgDn	Push and hold to scale up or down on charts except in dead reckon mode and then it changes the current heading.
Space bar	When the cursor or an icon is turned on, the space bar can substitute for the mouse button. Pressing the space bar once is equivalent to pressing the mouse button, pressing it again is equivalent to releasing the mouse button.
F1	Calls for Help. This help is “context sensitive”. If you have a dialog box open, the help shown will explain the use of that box.
F2	Toggles the cursor on or off.
F3	Calls a dialog box to change track color.
F4	Calls the <i>Change Range</i> dialog box.
F5	Calls the <i>Track Duration</i> dialog box.
F6	Saves the present track.
F7	Adds a mark at the vessel's present position, or, if the cursor is on, it adds a mark at the cursor's position.
F8	Enables you to add or remove a range & bearing flag from a mark on the screen.
Shift	For split screen mode; hold down while clicking on scale buttons or entering a range to change ranges on right side of the screen
Shift+F1	Calls the <i>Mark Search</i> List to find and edit marks.
Shift+F2	Allows the formation or removal of a line between any two marks.
Shift+F3	Provides for changing the color or symbol used to display a mark on the screen.
Shift+F4	Calls the <i>Dead Reckoning</i> dialog box.
Shift+F5	Allows tracks to be turned on or off the screen.
Shift+F6	Permits tracks to be un-erased.

Chapter 2

Shift+F7	Provides for erasing marks from the screen.
Shift+F8	Provides for moving a mark on screen.
Shift+F9	Calls the <i>Track Search List</i> to find and edit tracks.
Shift+F11	Calls the <i>Tide Forecaster</i> .
Shift+F12	Turns tracks on and off.
Shift+A	Provides for moving a mark on screen.
Shift+S	Switches between full and split screens.
Shift+W	Cursor off: Calls world chart. Cursor on: Instant waypoint without using a mark.
Shift+ Insert	Calls the sound control dialog box for voice and other sounds.
Shift+Ctrl+F8	Turns the showing of all tracks regardless of their hide status on and off.
Shift+Ctrl+F1 1	Turns the linking of marks made with track on and off.
Shift+Ctrl+F1 2	Turns track names printing on screen on and off.
Ctrl+F1	Provides for erasing tracks showing on the screen.
Ctrl+F2	Provides for turning marks on or off the screen.
Ctrl+F3	For changing ocean, land or border colors.
Ctrl+F4	Calls a dialog box for changing the width, color, or description of current track.
Ctrl+F5	Starts a new track.
Ctrl+F6	For changing the name and description of current track.
Ctrl+F7	Un-erases a mark from the screen.

Short Menus, Mark Menu

Ctrl+F8	Provides for changing the description of marks.
Ctrl+F9	Provides for changing the size of marks on the screen.
Ctrl+F11	Provides for changing to and from split screen.
Ctrl+A	Calls TD to Lat/Long Converter and Loran Overlay dialog box.
Ctrl+B	Sets Icon that indicates the vessel's present position and sets length and width of heading line.
Ctrl+C	This key combination will exit the plotter program.
Ctrl+E	Calls Routes/Waypoint window.
Ctrl+H	This key combination will suspend the plotter program.
Ctrl+G	Calls calibration box for TD calibration points.
Ctrl+I	This key combination will insert a paint point on vector charts for chart coloring. THIS WILL DRAW SCREEN ALL GREEN IF NOT USED PROPERLY.
Ctrl+M	Calls Sonar/Radar mark dialog box.
Ctrl+N	This key combination will call the raster chart menu.
Ctrl+P	This key combination will set any mark as a waypoint.
Ctrl+S	This key combination will reset waypoint origin.
Ctrl+T	Sets current track status (= top button on button bar).
Ctrl+W	Downloads a waypoint to a mark.
Ctrl+Z	Zoom any location by Lat/Long or Range & Bearing.
Ctrl+R,L,U,D	Use these key combinations to set the end of a vector chart to draw a line to the edge of the screen so they color properly using the cursor.
Alt+R,L,U,D	Use these keys to set the beginning of a vector chart to draw a line to the edge of the screen so they color properly using the cursor.

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Alt-E	Makes white fish at present position.
Alt-I	This key combination will remove last paint point.
Alt-J	Makes red fish at present position.
Alt-X	Makes white square at present position.
Alt-Z	Make turquoise fish at present position.

Program Features

The features of P-Sea WindPlot are described in detail in the following section. The purpose of the feature and any cautions about its use are given first. A method of accessing the feature is given last.

The features are presented in the order that they are encountered in the menu structure of this program. Use the index in the back of the manual to locate specific information you do not know how to locate in the menu structure.

In response to repeated requests for a simplified program, *Short Menus* are provided as well as the standard longer menus. We will start by explaining in detail the features that can be accessed from the short menu. The features, which can only be accessed from the long menu, will be discussed in a separate section.

Short Menu Features

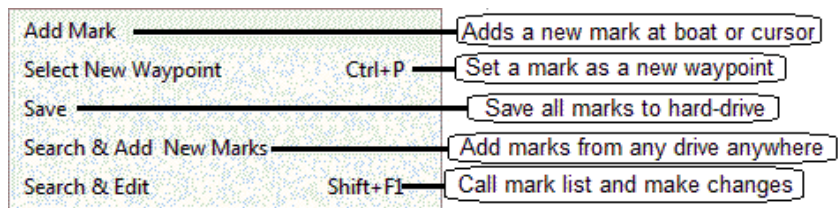
There are only six items in the short menu: Quit, Marks, Tracks, Options, Long Menus, and Help. We start with the first of these.

Quit Menu

Click on *Quit* in the plotter **short** menu bar and you will see one or more dialog boxes. If you have made marks or tracks, which have not been saved, the dialog box will ask you if you would like to save them. If you do want to save them, click on the *Yes* button in the box; otherwise, click on the *No* button. These dialog boxes help you to remember that you will lose any data that has not been saved to disk when you quit the program. Finally, a dialog box will appear that asks if you want to quit the program. Click on *Yes* in this box to quit the program or on *No* to return to the program.

Marks Menu

Click on *Marks* (or hangs) in the plotter **short** menu bar and the Marks menu will appear. Marks mark a position on the screen with 10 different symbols, 15 color and 15 sizes. They are used

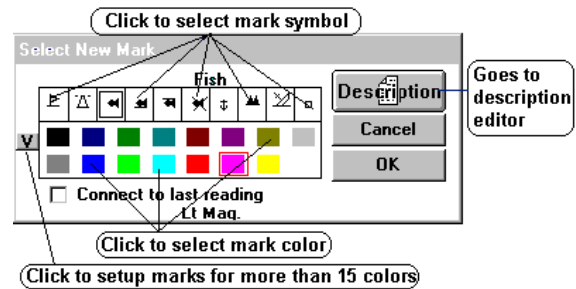


to mark a hang, waypoint destination, channel marker, anchor spot or what ever else you may want to note on the plotter screen. Each mark has it's own description and custom descriptions. You can print any part of the description next to the mark on the plotter screen

Marks ' Add Mark

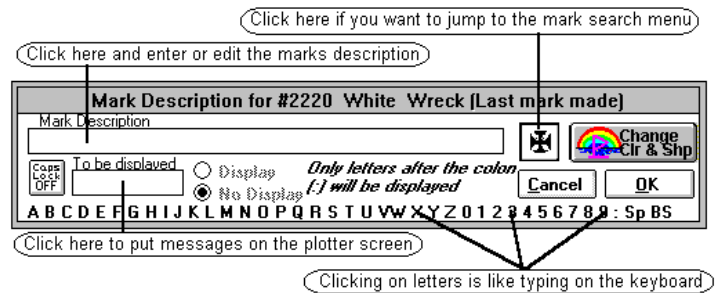
If you click on *Add Mark*, the first of three items in this menu, the *Add mark at Ship* dialog box will appear.

Click on the type of mark you want to make and click on the color you want the mark to be. Your choices will show a border around them.



Marks ' Add Mark ' Description

If you want to record a description of the mark click on the *Description* button in this dialog box to call the *Mark Description* dialog box. The description you use may be a simple one such as "fish" or "rock" or "high yield" or it can contain two elements separated by a colon (:). For example, if you want to keep all the marks you made while salmon fishing separate from your other marks so that you can turn them on or off together, you might type **salmon:** followed by a name for that specific mark in the Mark Description box. Only the characters after the colon can be displayed.



Note: If you have an asterisk "*" in any part of the description then nothing will be allowed to print on the screen. Delete the asterisk to print anything next to the mark.

Marks ' Select New Waypoint

This feature allows you to choose a mark and assign it as a waypoint (also see *Options Routes/Waypoints*). Click on *Select New Waypoint* from the Mark menu and the *Mark Search and Edit* menu will appear. Click on *No* if you want to download the waypoint from the GPS or click on *Yes* and use the scroll bar or text search to find the mark you want as a waypoint. When you locate the mark click on the very first column, the mark number, to select it as a waypoint. Then answer *Yes* to confirm your choice. The screen will redraw with the dotted line out to the new waypoint. The range and bearing back to it will appear in the lower right of the screen. See long menus for more details on the 3D XTE box.

Marks ' Save

Click on *Save*, the third item in the mark menu, to save any marks you have made but not saved.

Marks ' Search & add new marks

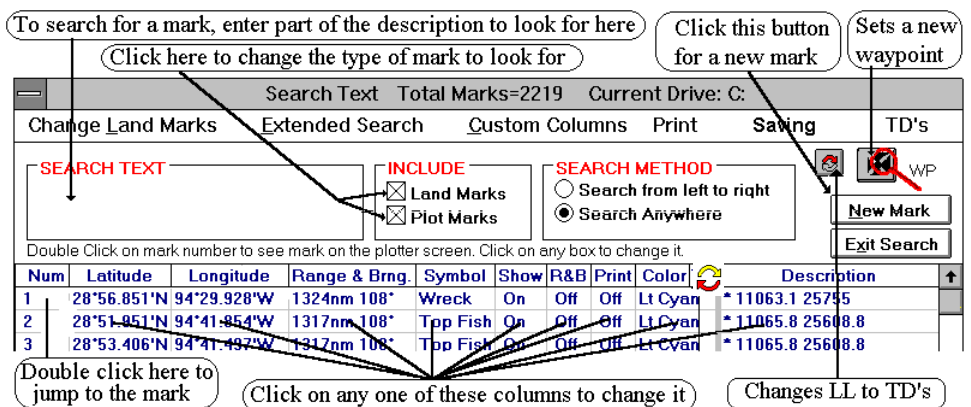
Click this to load and add marks to your current marks from other drives or sources. Simply click on "*Search Now*" when the search window appears. In a minute all mark files are listed and you just click on the one you want to add. Look at long menus later in this manual for a more detailed description if you need it.

Short Menus, Mark Menu

Marks ' Search & Edit

Click on *Search & Edit*, or press **Shift+F1**, to call the *Search Text* dialog box that contains a list of marks you have in RAM memory.

The marks can be listed in either TD's or Lat/long. Simply click the change button located in the upper right of the list. The headings of the columns will change accordingly.



This *SEARCH TEXT* dialog box serves as a mark locator from which you can easily locate a mark or groups of marks from a pool of thousands. Each letter typed in this box launches a mark description search routine as specified by the *INCLUDE* and *SEARCH METHOD* settings. The marks will appear on the list as it finds them.

If you click on *LAND MARKS* in this dialog box, you can change whether or not land marks are included in this list. If there is an X in the box next to the words *Land Marks*, they will be included. If the X is not in the box, the land marks will not be included. (Land marks are cities, buoys, etc.)

The *SEARCH METHOD* box allows you to choose where the search starts from in the mark description. For example; say you enter "**berry**" in the text box (the search is not case sensitive). If the *Search Anywhere* method is selected, then all marks that have **berry** in any part of the description will appear. But if *Search from left to right* is selected then only the marks that have **berry** at the very beginning of the description will appear on the list.

You can look through the marks in this list by clicking on the buttons in the vertical scroll bar located on the right of the list. Each time the button is clicked the marks scroll 3 marks at a time. Click on the inside of the buttons to scroll 15 marks at a time


Note: Pressing the **PgUp** key will cause the marks to scroll up 15 at a time and pressing the **PgDn** key will cause the marks to scroll down 15 at a time. Pressing the **Home** key will take you to the top of the list. Pressing the **End** key will take you to the end of the list.

To call the Mark Search list either press **Ctrl-F1** or use the plotter menu bar and click on *Marks ' Search & Edit*.

To add a mark to the list,


- 1 Click on *Marks* from the plotter menu bar and click on the last item, *Search and Edit*. The *mark search and edit* list will appear.

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- 2 If you desired to enter your marks (or hangs) in TD's then click the button  with two arrows on it that form a circle. You will see the 2nd and 3rd columns change to TD1 and TD2. So long as your GRI is setup the way you want it then you're ready to enter in TD's.
- 3 Click on the button labeled *New Mark* in the upper right of the screen. You are automatically taken to the end of the list and a new mark is generated.

Note: *Entering in TD's or LL?* will appear at this point in place of the *New Mark* button you just clicked on. You can change from entering the new marks position in Lat/Long or in TD's.

Switching from LL to TD entry and visa versa

If you desired to enter your marks (or hangs) in TD's then click the button  with two arrows on it that form a circle before you click the *NewMark* button. You will see the 2nd and 3rd columns change to TD1 and TD2. So long as your GRI is setup the way you want it then you're ready to enter in TD's. The *TD* column of the menu list must be X'ed in order for the program to recognize the mark as a TD.

To add a mark by Range and Bearing,

- 1 Click on *Marks* on the plotter menu bar.
- 2 Click the last item, *Search and Edit* (The *Marks Search and Edit* list will appear.)
- 3 Click then *New Mark* button on the upper right and press **Enter** 4 times then click on *No* to add and set a new mark (or select any other mark from the *Mark Search and Edit List*).
- 4 From the list of marks click in the mark's **Range** and **Bearing** column (fourth from left).
- 5 A dialogue box will appear asking you if you want to erase the mark. To enter a range and bearing, click the *Cancel* button.
- 6 Enter the range in nautical miles(n), add a space and enter the bearing(b) then press enter (nnn.n bbb).

The range and bearing must be separated by only one space and no special character is needed. The program will calculate the Latitude and Longitude from the range and bearing you enter.

To generate lines using Lat/Long (or TD's) from the Mark Menu,

Lines function will produce a line between only between each mark set you make. Mark symbol will not appear on the screen (see *Linking marks* in the *Marks* menu also).

- 1 Call the mark menu by clicking on *Marks* in the plotter menu bar then click on *Search and Edit* at the bottom of the list.
- 2 If you desired to enter your marks (or hangs) in TD's then click the button with two arrows on it that form a circle. You will see the 2nd and 3rd columns change to TD1 and TD2. So long as your GRI is setup the way you want it then you're ready to enter in TD's.
- 3 Click on *New Mark* button in the upper-right.
- 4 Enter in the Latitude for the start of the line and press **Enter**. (Or click on TD's or L/L button in the upper-right to switch to entering in TD's instead of Lat/long-enter the first TD reading).
- 5 Enter in the Longitude in the next box followed by **Enter**.
- 6 When the *Select new Mark* dialog box appears, make sure the *Connect to last reading* check box is unchecked for the first line reading.
- 7 When the dialog box appears for color and shape, just press **Enter**.

Short Menus, Mark Menu

- 8 When the dialog box appears for the description, just press **Enter**.
- 9 Click on *Yes* when asked to do another mark.
- 10 Enter in the next readings position but this time check the *Connect to last reading* check box and select the color and line thickness with you want.
- 12 Repeat this process until all readings for that line are done. Then either exit the *Mark Search and Edit* menu or do another reading and uncheck the *Connect to last reading* check box for the first reading and check it for the rest.

To add Andren marks to WindPlot,

- 1 Click on *Marks* from WindPlots' menu bar then click on *Mark Search & Edit*.
- 2 Click on *Import* in the *Mark Search & Edit* Menu bar.
- 3 Click on *Import Andren Files*.
- 4 Click on any one of the files that appear in the list and the marks will load into WindPlot.

Note: Even more types of files can be imported. See *Marks Search & Edit* in Long Menus.

To find a specific mark in this list,

- 1 Set the *INCLUDE* and *SEARCH METHOD* to your specifications.
- 2 Use the keyboard to enter the keyword that will identify the mark you are looking for. Each letter you type triggers a new search.

The following buttons will appear as soon as any search is entered:



The first button *Clear Search*, resets the search back to listing all marks and the buttons will disappear. Next to that is the total *marks found* in the search along with how many there are erased. Then the next button *Change* will allow you to change all marks you have pulled up on the search at the same time or the next button *Delete* lets you delete them all. The fourth button “*Copy*” allows you to copy the marks listed to any disk or file. The fifth button, *Move to front*, will put searched marks to the front of the mark list. The last button, *Move to back* will move all marks listed to the end of the mark file. Please note that only the marks that match the current search will be effected no matter if it is color, description, range, symbol or any combination of search items.

See the *Long Menus* chapter for a detailed description of the buttons above.

To change the color of a mark using this list,

- 1 Find the mark you want to change and click on it in the column labeled *color* to call the *Select New Mark* dialog box for that mark.
- 2 Click on your color choice in this dialog box. A box will appear around the color you have selected.
- 3 Click on the *OK* button to confirm your selection.

To change the description of a mark using this list,

- 1 Find the mark you want to change and use the horizontal scroll bar as necessary to bring the last column containing the mark's description into view.
- 2 Click on the description of the mark you want to change to call the *Mark Description* dialog box.

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- 3 Click in the boxes this dialog box provides and make modifications.
- 4 Click on the *OK* button when finished.

To change a mark's display using this list,

- 1 Click on the mark in the column that lists the aspect of the mark display that you want to change. That is, click on *Show* to turn on/off the mark on the screen, click on *R&B flag* to turn on/off the range and bearing flag displayed next to the mark, or click on *Print* to turn on/off that portion of the description which follows a colon.

To change a mark's geographic Lat/Long position,

- 1 Find the mark you want to change.
- 2 Click on the Latitude and type the new Latitude. If the Latitude is not showing, click the button in the upper right with the red and yellow arrows to change from TD's to Lat/Long. You do not need to type the degree symbol or the minute's symbol. Just type the numbers, the decimal point and the letter N or S. Use the format DDMM.MMM where D is degrees and M is minutes.
- 3 Click on the Longitude and type in its new value.
- 4 Click on the *Exit Search* button.
- 5 Save your marks or quit the program-using *Exit* from the Data menu and the marks will be saved automatically.

To change a mark's geographic position using TD's

- 1 Find the mark you want to change.
- 2 Click on the TD1 column and type the first TD. If the TD column is not showing, click the button in the upper right with the red and yellow arrows to change from Lat/Long to TD's. Make sure that TD1 and TD2 is the correct slave and your GRI is set up properly.
- 3 Click on the second TD and type in its new value.
- 4 Click on the *Exit Search* button.
- 5 Save your marks or quit the program-using *Exit* from the Data menu and the marks will be saved automatically.

To change the mark's symbol using this list,

- 1 Find the mark you want to change.
- 2 Click on the symbol for the mark you want to change (in the Symbol column). This will call the *Select New Mark* dialog box.
- 3 Click on the symbol you want the mark to have. The symbol will be framed in a thin red line.
- 4 Click on the *OK* button in the dialog box.

To change the display status of a group of marks,

- 1 Group the marks you want to control by giving them a common name in the *mark description* followed by a colon. (i.e., "City:Tampa" or "City:Mesa.")
- 2 Click on one of these marks in the *Show* column of this list to change the display status of the entire group.

Mark menu, Short Menu

To turn an individual mark name on/off using this list,

- 1 Click on the mark in the *Print* column to toggle on/off the printing of the part of the mark description that follows the colon (:). (If there is no colon in the description, nothing will be printed.)

To turn the range and bearing (R&B) flag on/off using this list,

- 1 Click on the mark in the *R&B* column to toggle the **Range** and **Bearing** flag of that mark on/off.

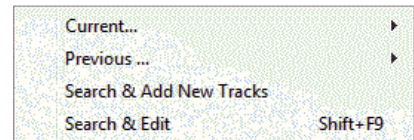
To turn mark symbol on/off using this list,

- 1 Click on the mark in the *Show* column to toggle on/off the appearance of the mark symbol on the screen.

To use the menu bar see the Long Menus chapter on the Mark Search & Edit list.

Tracks Menu

Click on *Tracks* in the plotter short menu bar and the *Tracks* menu will appear. Tracks are past paths that the boat has traveled shown on the screen as a line with 15 color and 245 width possibilities. The are made by saving Lat/Long points as you travel then the program draws lines between the points when the are re-drawn on the screen. How often a point is saved is called the duration. The longer the duration the longer you can track on any on track file but it is too long it gets choppy making turns.



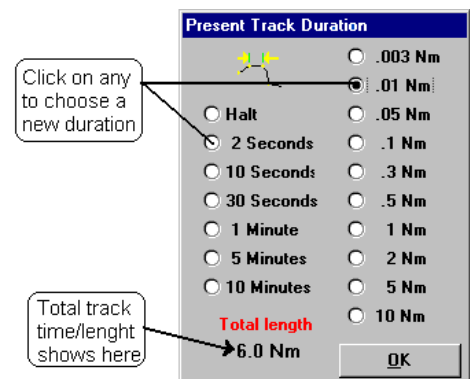
Tracks ' Current...

The current track is the track the vessel is currently making. This part of the track menu allows you to change certain aspects of your current track like color, width and type of track data storage. If you click on *Current*, the first of the three items in this menu, a sub-menu appears. It allows you to set several features of tracks and to save the current track or to start a new one.

Duration	F5
Name & Desc.	Ctrl+F6
Save	F6
Start New	Ctrl+F5
Width	Ctrl+F4

Tracks ' Current... ' Duration

Click on *Duration*, the first item in this sub-menu, and the *Present Track Duration* dialog box appears. This dialog box allows you to adjust the length of the track by adjusting how often a track point will be recorded. Track points can be recorded at specified time intervals or at specified distance intervals. For example, clicking on the third button in the left-hand column of buttons will result in the vessel's position being recorded every 30 seconds. Note that if you make the duration too large the track line will appear choppy.

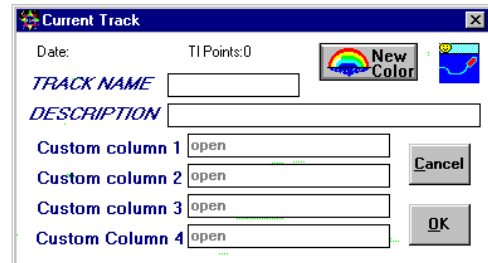


Chapter 2, General Information

Clicking on the first button in the right column of buttons will result in the vessel's position being recorded every one-tenth of a nautical mile. The total length of the track is reported in the lower left of this dialog box. After you have made your selection, click on the *OK* button to confirm it and the box will disappear.

Tracks ' Current... ' Name & Desc.

Click on *Name & Desc.*, the second item in the sub menu, and the *Current Track* dialog box appears. This dialog box provides a place for you to enter the name and description of the current track.



Type the name you want to assign to the current track. If you also want to enter a description, click in the box below the name and type in your description. Click on the *OK* to confirm your choice or on *Cancel* to cancel what you have typed.

(There are several other operations that can be performed from this dialog box. For example, it also provides for dealing with Custom Columns. These other operations will be described in the Long Menu section of this Chapter.)

Tracks ' Current... ' Save

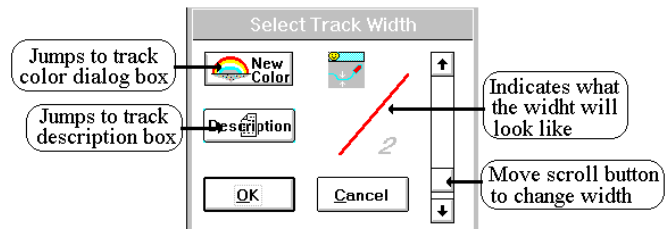
Click on *Tracks*, the third item in the menu bar, then click on *Current*, and then on *Save* to save the current track to disk.

Tracks ' Current... ' Start New

Click on *Track*, and then click on *Current*, and then on *Start New* to start a new track. The *Start new track* dialog box will appear and ask you if you want to save the present track. Click on the *Yes* button to save it or on *No* button to delete the present track.

Tracks ' Current... ' Width

Click on *Width*, the fifth item in the sub-menu to call the *Select Track Width* dialog box.



Use the scroll bar to adjust the width of the track. Click on the *OK* button to confirm your selection or you may click on the *New Color* button to change the track color, or on the *Description* button to call the *Current Track* dialog box. *(See the previous figure.)*

Tracks ' Previous...

Previous tracks are tracks that have been stored to disk. With this menu you can select whether the track names are presented at the beginning of each track, select which previous track you want to appear on the screen or have all shown at once.




Options, Short Menu

Tracks ' Previous... ' **Names On**

This is a checked menu item. When it is clicked and a check mark appears, the track names will appear on the plotter screen at the beginning of each track.

To change the track name display status, click on *Tracks* in the plotter menu bar, which will call the track menu. From this menu, click on *Previous* and then click on *Names On*.

Tracks ' Previous... ' **Select On**

This menu item, *Select On*, allows you to change the display status of any track within the plotter view screen area (you must use the *Track Search & Edit* list to change any other track). When selected, the plotter screen will redraw with all tracks showing. The tracks that are currently turned off will be in black (you are never allowed to use black as a track color for this reason). To change the display status of a track, place the change icon  on an edge or bend of a track and click the mouse. This will toggle the track from color to black or black to color. (A change icon is a yellow and a red circular arrow as shown on the right here.)

To select tracks to display, click on *Tracks* in the plotter menu bar to call the track menu. Click on *Previous* and then click on *Select On*. Place the change icon near a bend in the track to change and click the mouse.

You can also hold down the arrow keys on the keyboard to move the icon and then press the space bar twice to change. This method will allow you to go beyond the edge of the screen by moving the icon to any edge. Pressing the **Home** key will also re-center the screen.

Note that the *Select On* can be overridden when “*Show ALL*” is selected in the “*Windows*”> “*Tracks*” menus as it will display all tracks regardless of the “*Show*” status of each track.

Tracks ' Previous... ' **Show All**

This is a checked menu item. When it is checked (°), all tracks will show regardless of their display status. Un-checking it will return the display to only the selected tracks showing.

To change the *Show All* status, click on *Tracks* in the plotter menu bar to call the track menu. Click on *Previous* and then click on *Show All*.

Tracks ' Previous... ' **Unsave Tracks**

This will bring back any tracks that have been lost due to a mix of track files or a corrupt track directory file. Use it when you do not have as many tracks as you use to for some reason. It will let you know how many tracks you will recover without making any changes. However, caution using it as it may be misleading when it tells you it will recover X number of tracks as the program may have deemed these lost tracks as duplicates.

Tracks ' **Search & Add New Tracks** (See Long menus, *Track* ' *Search & Edit* for details)
Adds tracks from other WindPlot programs and sources from any drive.

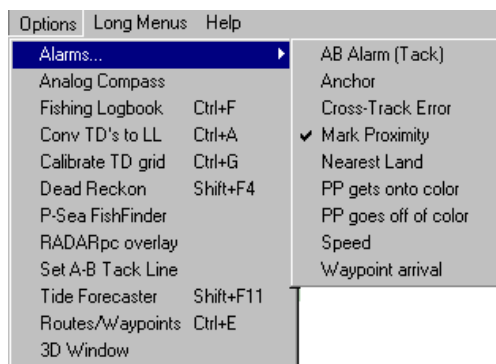
Tracks ' **Search & Edit** (See Long menus, *Track ' Search & Edit* for details)

Options Menu

Click on *Options* in the plotter *short* menu bar and the Options menu will appear.

Options ' Alarms

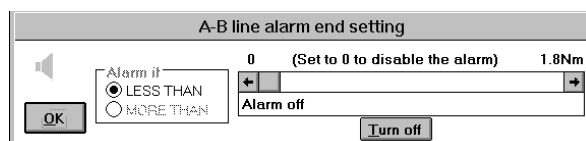
If you click on *Alarms*, the first item in this menu, a sub-menu appears. This sub-menu lists the seven alarms that you can set to go off under predetermined conditions.



▶ A speaker icon will appear next to speed and heading readout when any alarm is turned on. You can click on this icon to turn the sound off when it alarms or you can right-click it to turn all of the alarms off.

Options ' Alarms ' AB Alarm (Tack)

Click on the first of these alarms, *AB Alarm (Tack)*, and the *A-B line alarm end setting* dialog box will appear. Use the scroll bar to adjust the distance from the end of the A-B line that the alarm will sound. (Set the distance to 0 to turn the alarm off.) When the distance you want shows in the box beneath the scroll bar, click on the *OK* button to confirm your setting. The alarm will sound when the distance from your vessel to one of the ends is less than the amount you set the alarm to.



Options ' Alarms ' Anchor

Click on *Anchor* in this sub-menu and the *Anchor watch setting* dialog box will appear. It is similar to the *A-B line alarm end setting* dialog box and operates in the same way.

The alarm will sound when you drift beyond the set distance from where you were when you first set the alarm value. Resetting the alarm value will reset the anchor alarm. Click on the *Turn off* button to deactivate the alarm.

Options ' Alarms ' Cross-Track Error

Click on *Cross-Track Error* in this sub-menu and the *Cross-Track Error* setting dialog box will appear. Drag the scroll button to set the distance or click the *Turn off* button to turn it off.

Whenever you set a waypoint, an imaginary line is drawn between the vessel's current location to the waypoint. Any deviation the vessel takes from this line is known as cross-track error (or how far off course). This alarm will sound when the cross-track error exceeds the alarms set value.

Options, Short Menu

Options ' Alarms ' **Mark Proximity**

You can have an alarm sound when the vessel get close to a mark with an R/B flag attached. To set the proximity alarm, click on *Mark Proximity* in this sub-menu and the *Mark proximity alarm* setting dialog box will appear. It is also similar to the *A-B line alarm end setting* dialog box and operates in the same way.

Once this alarm is set and when the vessel gets within the set range of any mark with a range and bearing flag turned on, the alarm will sound. Only those marks with range and bearing flags can set off the proximity alarm. Click on the *Turn off* button to deactivate the alarm.

Options ' Alarms ' **Nearest Land**

This alarm will let you know when you are getting a certain range of land. Click on *Nearest Land* in this sub-menu and the *Nearest land alarm setting* dialog box will appear. This will only work if vector charts have been turned on (Press **Ctrl-V** to turn vector charts on). You must also set what chart to reference it too. This dialog box is similar to the *A-B line alarm end setting* dialog box and operates in the same way.

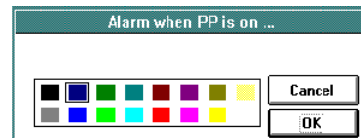
This alarm only works if you have vector charts turned on. If you select the *Less Than* option, then the alarm will sound when the vessel gets too close to land. If you set the *More Than* option, then the alarm will sound when you get too far from land. Click on the *Turn off* button to deactivate the alarm. Near land can be referenced to any installed vector chart or the USA regional chart, which is less accurate. It will also reference to the world chart when the range is set past 500nm.

Options ' Alarms ' **PP gets onto color**

Click on *PP gets onto color* in this sub-menu and the *Alarm when PP is on ...* dialog box will appear. (PP stands for **P**resent **P**osition.)

Click on the desired color in this box and then click on *OK* in this dialog box to confirm your selection. This alarm will sound when the vessel lands on the color you selected. To turn off the alarm, call the *Alarm when PP is on ...* dialog box and click on cancel.

(Off color alarms may not work with some video driver cards unless in 16 color mode).



Options ' Alarms ' **PP goes off color**

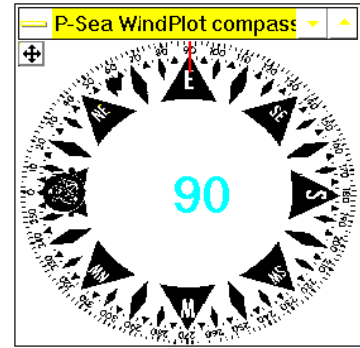
Click on *PP goes off of color* in this sub-menu and the *Alarm when PP goes off of ...* dialog box will appear. This dialog box is similar to the *Alarm when PP is on ...* dialog box shown above. Click on the desired color in this box and then click on *OK* in this dialog box to confirm your selection. This alarm sounds when the vessel leaves the color you selected. To turn off the alarm, call the *Alarm when PP is on ...* dialog box and click on cancel.

Options ' Alarms ' **Waypoint arrival**

Click on the last of these alarms, *Waypoint arrival*, and the *Waypoint arrival* alarm end setting dialog box will appear. Use the scroll bar to adjust the distance from the end of the waypoint that the alarm will sound. (Set the distance to 0 to turn the alarm off.) When the distance you want shows in the box beneath the scroll bar, click on the *OK* button to confirm your setting. This is also known as the auto sequencing distance when using routes.

Options ' Analogue Compass

Click this category to call up a floating compass window. It has a picture of a compass card that will rotate as ships heading changes. Dragging the right or left side can change the size of the window. Heading information will come from a fluxgate compass if one is connected; otherwise the heading can come from a GPS (GPS headings are not accurate until vessel is under way.) To close the window, click on the minus symbol (-) or plot icon in the upper left of the window and select *Close*.



There are two modes of operation with this compass, floating and NAV modes. The default when you first select it is the floating mode. In the floating mode, the compass can be moved anywhere around the screen by dragging the blue header on the compass. The program will keep checking to see that the compass is on TOP of the WindPlot program. Therefore, whenever you click the WindPlot window or draw focus to it, the compass will disappear. Then the program will automatically bring the compass back to the top so you can see it. The only problem with this method is it does not allow you to see another program that you might be running at the same time.

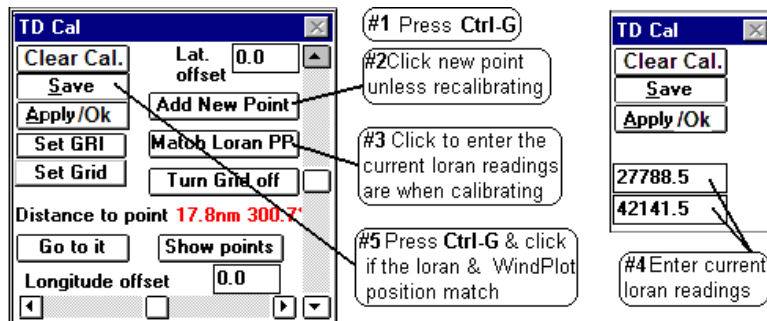
To get the NAV Mode, click the button in the upper-left of the compass that has four arrows pointing out. The compass will expand to fill the left half of the window while the plotter program is shrunk down to fit the remaining right half. The present position, speed, heading and waypoint information is displayed in the middle of the compass. The program will no longer check to see that the compass is on top and therefore you can run other programs. Click the same button again to reduce the compass back to the floating mode

Options ' Conv TD's to LL

Click on the fourth item in the *Options* menu, *Conv TD's to LL*, and the *Convert TD's to Lat/Long* dialog box will appear. In order for the conversion to work, the location of the vessel must be within 100 miles of the TD to be converted. You must also set up the GRI and Slaves for the area you are doing the TD conversions or the conversion will be wrong or not work at all. If you have not set up the GRI, click on *Setup GRI*, select the proper GRI and secondaries from the box that drops down. When the setup is complete, you can enter the TD's you want converted and the corresponding Latitude and Longitude will appear in this dialog box. This dialog box will also allow you to setup TD overlays. See the *Long menus'* section of this manual for a more detailed look at this procedure.

Options ' Calibrate TD Grid

Click on this item to call the TD calibrator box. You will see this box appear after each change you make to the grid (or press **Ctrl-G** anytime in the plotter mode). If the TD grid is not turned on or present position isn't set to TD's, it will turn them on for you before



Short Menus, Options Menu

showing the calibration box. It allows you to calibrate the present BIGTD grid file. Calibration should be done by clicking the *Match Loran PP* button and enter in the known Loran position. Since Loran-C has been shut down you will have to use another source to calibrate to like another vessel with the program that is calibrated tied next to you. If you know how much offset to apply in Lat/Long then you can also click the up/down arrows to change the Latitude and the right/left arrows to change the Longitude correction factors. The changes are very small, so you may need to hold the mouse down for a period of time to see any changes. The maximum offset is 20 miles. The grid itself will not change until you click on the *Apply* button or enter a Loran calibration, then you will see the screen redraw to the new settings. If you click the *Cancel*, the changes are not saved and it will redraw to the old offsets. Click on *Save* to make the offsets permanent.

Note: TD's are not consistent. Do not completely trust you gear to any converted Loran reading until you have been able to verify the accuracy.

Also, you can add a new calibration point and see how far the closest calibration point is. Click the *Go to it* button and the cursor will be turned on (if not already on) and the plotter will redraw with the calibration point in the center. Click the *Show Points* button and a dot will appear where the calibration point is. Place the cursor over any one of these points to change or delete it. Click the *Turn Grid off* and the screen will redraw without the grid showing.

NOTE: TD CALIBRATION ONLY WORKS WHILE GRID IS ON OR HIDDEN! Marks made by TD's are returned to their original location when you turn off the grid. Tracks are never affected by TD offsets.

Key points to remember while using TD's

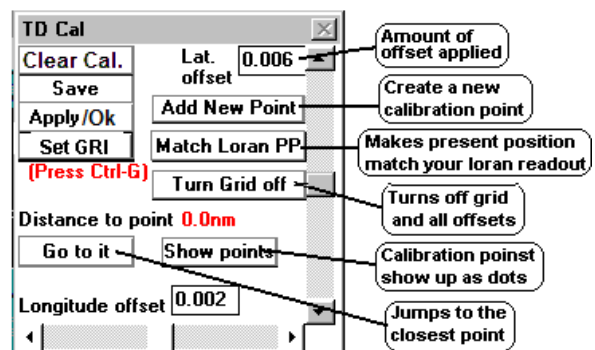
- 1 You will need to make more than one calibration point to be totally accurate or use ASF.
- 2 ALWAYS confirm your calibrations with a known reference point (Loran-C can not longer be used for this) or use the *Match Loran* method. Don't trust a converted TD until doing so or you may loose your gear. Especially if the Loran reading is from a different Loran than what is running the plotter.

Loran calibration procedure

Since Loran-C has been shut down, **you can not longer calibrate your TD's using the Loran-C.** Please use the new ASF tables or download previous calibrations from one of your buddies or from our web site.

What you can also is if you know what the TD offsets in Lat/Long (in miles) should be then you can put them manually.

- 1) To do this click on the *Adjustments* menu in WindPlot and select *Calibrate TD Grid*.
- 2) If the *Distance to point* is too far (>5 mile) then click on *Add New Point* and click OK to make a new calibration point at your present position.



- 3) Then enter the values in the *Lat. Offset* and *Long. Offset* boxes or use the scroll bars to change the offset.
- 4) Then click the *OK/Save* button.

Options ' **Dead Reckon**

This feature allows you to run the plotter without the Loran or GPS attached. You can press **Shift-F4** or click on the position readout to activate it as well as using the *Options* menu. You can set the vessel's position and simulate the speed and course from this feature. A special button that has red and yellow arrows over each other is the change button that changes the present position to read out in Loran TD's if desired. This will automatically turn on using the last speed and heading values in the event the Loran or GPS fails to send a signal to WindPlot and will automatically turn off when the signal comes back. *Dead Reckon* will appear in WindPlot's heading bar anytime it is turned on.

Simply click (or use the TAB key) on the appropriate boxes to change their values. You can change present position to anywhere you want. Just click each Lat/Long box and enter in the values in degrees, minutes and hundredths of a minute with no spaces, degree or minute symbols. You just need to put in a decimal point for the hundredths place. Follow the Latitude entry with an **N** (or **S**) and the Longitude with a **W** (or **E**) or press **Enter**.

Clicking on *OK* activates the settings. Once back on the plotter screen you can use the +/- keys to control the speed and the **PgDn** and **PgUp** keys to control the vessels heading.

Clicking on *Turn off* will deactivate dead reckoning and the program will start searching for a Loran or GPS signal. See the tutorial for an example of how it is set.

NOTE: The Loran or GPS will not work if you have manually turned on *Dead Reckoning* and it will not go off until you manually turn it off.

Options ' **P-Sea FishFinder**

This is an option that is not normally included with WindPlot. See **chapter 8** for operation details.

Options ' **RADAR_{pc} overlay**

This is an option that is not normally included with WindPlot. See **chapter 5** for operation details.

Options ' **Set A-B Tack Line**

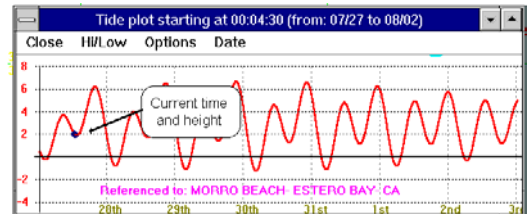
This option allows you to set up reference line on the plotter screen to follow and tack back and forth while tacking. Click on *Options*, and then click *Set A-B Tack Line*. The plotter screen will redraw with the cursor turned on. Use the mouse to place the cursor on one end of the tack (use the keyboard arrow keys if the point is not on the plotter screen). Double-click the mouse to set the first end (or press the space bar if using the keyboard). Place the cursor on the other end of the tack line and double-click the mouse again. See the tutorial for an example of this function. See *Options ' Waypoints/Routes* on how to extend the line beyond the A-B points.

Short Menus, Options Menu

The range and bearing to either one of the ends of the A-B line are displayed in the bottom of the screen. The program automatically detects which end the vessel is heading for and gives only that range and bearing. The color of the readout also indicates which end you are heading for.

Options ' Tide Forecaster

Click this category to call a tide forecaster window. If you are using Navionics or C-Map charts, see the section for those charts for a description of the tide forecaster located in the *Windows > Charts > (Navionics or C-map)* menus. Otherwise the basic forecaster shown here first locates the tidal information from a database of over 300 major ports around the US (it includes a few foreign ports). The name of the closest port will appear in the header of the HiLo tide window. You have a choice of the HiLo prediction for a week or a plot of the tides as shown to the right here. The plot of the tides can be set to display a full week or an individual day. In the full week mode, the time at the mouse arrow is displayed for any level of tide when the mouse arrow is placed on the tide curve. You can change the date to forecast any time period you wish, with default being the present day forward. The plot will also show the current tide level when the present day is selected. Dragging any one of its edges can change the size of the window.



SOUTHBEACH- YAQUINA BAY- OR- Highs and Lows(Feet)									
Year	Mo.	Day	DOW	Time	Height	Time	Height	Time	Height
2002	02	26	TUE	0505	02.66	1110	09.71	1751	-01.65
2002	02	27	WEN	0028	08.33	0555	01.90	1202	09.81
2002	02	28	THR	0106	08.78	0645	01.22	1253	09.63
2002	03	01	FRI	0144	09.12	0735	00.70	1344	09.15
2002	03	02	SAT	0223	09.31	0826	00.40	1438	08.45
2002	03	03	SUN	0303	09.32	0920	00.33	1535	07.63
2002	03	04	MON	0345	09.14	1018	00.45	1639	06.83

Tide forecaster is an option that is now included with the purchase price of a standard WindPlot program. See *Long Menus* for details of operation.

Options ' Routes/Waypoints

Click this menu to call a window that will allow you many options for setting, making, clearing routes and waypoints.

Waypoints offer range, bearing, cross-track error and estimated time and date of arrival to a single destination. You have many options when entering the destination; Lat/Long, Loran TD's, Range & Bearing entry; cursor, mark or present position or by choosing on from the mark list. Usually when you select a mark, WindPlot makes the assumption that the vessels' present position is the starting point.

Routes are nothing more than a set of waypoints in a certain order that will sequence automatically from one to the next. When using a route, the first waypoint or node as we will refer to it here after, will be the first waypoint you assigned to the route list. The same information you get from a waypoint like range & bearing is displayed to this point. The only difference will be when you choose the last node as the range, and then the program will calculate the distance for the entire route. The program will automatically sequence to the next node in the route as you get to the first node and the program will make a beep. This will continue for all nodes until the last where the alarm will sound. Only one route can be on at a time.

Chapter 2, General Information

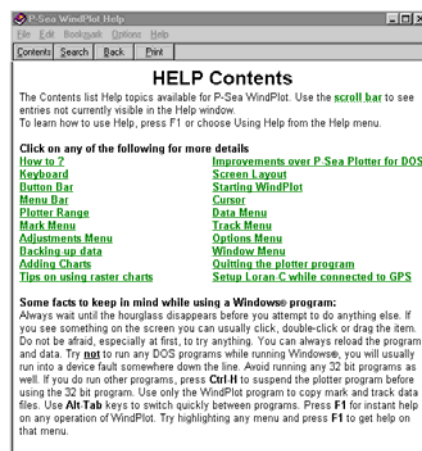
See *Long Menus* part of this manual under the *Options ' Routes/Waypoints* section for details on how to operate the *Routes/Waypoints* window.

Long Menus

Click on *Long Menus* in the plotter **short** menu and the long menus will appear in place of the short ones. These full menus give you access to the entire program. They will be described later in this chapter.

Help Menu

Click on *Help* in the plotter **short** menu and the Help menu will appear. This menu provides access to a complete description of the program. It is the same menu that will appear if you click on help in the plotter **long** menu.



Help ' Index

Click on the first item in the Help menu, **Index** and a list of topics is presented on the screen. This list of topics is like a table of contents in a book. If the mouse arrow is placed over one of these topics, the arrow changes into a hand. Clicking the left mouse button when the hand is pointing to one of the topics brings a description of that subject onto the screen. For example, clicking on *Plotter Range* brings a definition of range as used in the program and a description of how to change ranges.

NOTE: For Windows 7 and Vista users you must start here to get help as shortcuts like pressing **F1** no longer work because in Microsoft's wisdom, they think that it isn't used any more and so it is no longer supported.

Help ' Index ' File

Notice that there is a menu bar at the top of this window. Clicking on the first item in this menu bar, *File*, brings down a menu that contains four items. The first item in this menu is "Open." This item provides access to help files.

Calling the file, *windplot.hlp*, will simply call the help file. This is equivalent to pressing **F1** on the keyboard or clicking on *Help* in the plotter menu bar.

Help ' Index ' File ' Print Topic

Clicking on the second item in the File menu, *Print Topic*, results in the topic in the help window being printed if a properly setup printer is available.

Help ' Index ' Edit

Clicking on the second item in the menu bar of the Help window, *Edit*, calls a menu with two items.

Help, Short Menus

Help ' Index ' Edit ' **Copy...**

Click on the first of these, *Copy...*, brings a window to your screen showing HELP Contents. Clicking on an item in this table of contents copies that topic onto the Windows clipboard. Once it is on the clipboard, it can be imported into any Windows program.

Help ' Index ' Edit ' **Annotate...**

Clicking on the second of the two items in the Edit menu, *Annotate...* calls the Annotate dialog box. This command allows you to add your own text to a help document. To annotate a help topic, first display that topic. Then click on *Edit* and click on *Annotate*. The dialog box that appears has an area in which you can type your comments. An example of how it might look with an annotation for Print Topic is shown to the right.

After you write your annotation in the annotation dialog box and click on *Save*, a paper-clip icon appears to the left of the annotated topic. To reread your annotation, click the paper clip and press **Enter**.

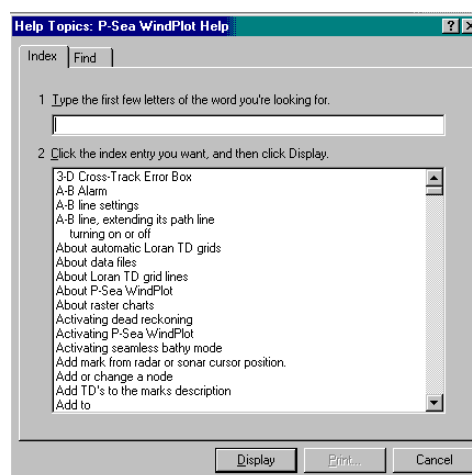
Under the menu bar of the P-Sea WindPlot Help screen is a button bar containing four buttons, Contents, Search, Back and History.

Help ' Index ' **Contents**

Clicking on the first of these, Contents, brings down the HELP Contents screen from anywhere in Help.

Help ' Index ' **Search**

The second of these buttons is very important. Clicking on the *Search* button brings down a dialog box shown below that may be the most useful dialog box in the program.



When you need information on a subject you can click on a topic from the list shown or enter a key word into the top box of the dialog box and then click on the Show Topics box. When the topic of interest is shown, then click on the *Go To* button. This will result in a window containing a description of that topic. You will find this to be the procedure of choice in looking for information about this program. The information obtained in this way is more easily accessed than looking it up in the printed manual and *this online information is the most up-to-date available. It takes time to edit or rewrite and print a manual but the online documentation is edited when the program is updated.*

Help ' Index ' **Back**

Clicking on *Back*, the third button in the button bar at the top of the Help window, (when it is activated) will always return you to the HELP Contents window. Clicking on the fourth button, History will not be discussed here.

Chapter 2, General Information

Help ' Keyboard

The Second item in the Help menu, *Keyboard*, brings a window containing a complete list of the keyboard assignments used in the program.

Help ' How to

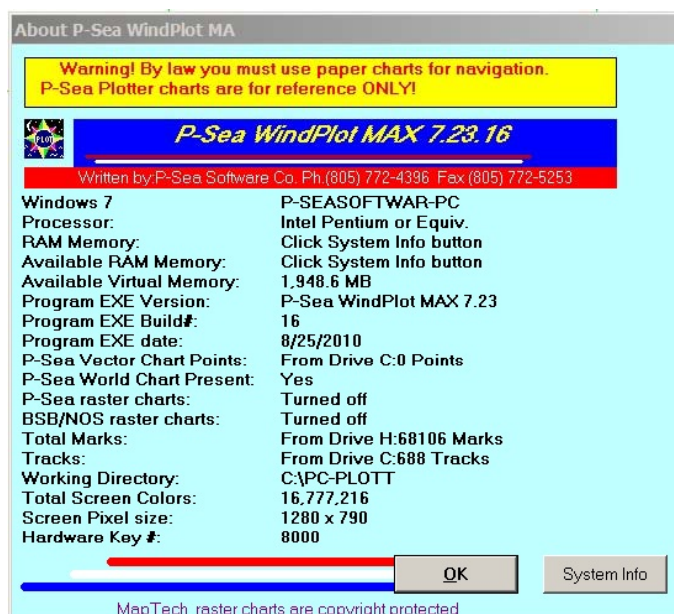
Clicking on *How to* in the Help menu brings a window containing a list of tasks to your screen. Click on one of these tasks and a window will appear which contains a description of how to perform that task.

There is another very helpful way to use help. When you see a menu item that you want described, use the arrow keys to highlight it and then press **F1**. A Help screen will appear that describes the function called by that menu item.

Help ' About Plotter

Call this dialog box to get a picture of how the WindPlot program is being utilized on your computer by clicking on *Help* in the plotter menu bar then click *About Plotter*.

It lets you know (in order as presented on the dialog box) the mode that Windows is running in, how much free memory is available, if you have a math coprocessor, how many P-Sea Software VECTOR chart points are loaded, if the P-Sea world chart is loaded, if NV world chart is loaded, the number of P-Sea raster chart panels loaded, the number of BSB/NOAA raster charts, how many marks are loaded, how many tracks are on the primary track drive and the directory in which the program is running.



In ending this discussion of on-line help, we encourage you to learn to use it because it is faster than using the manual and the information is more up-to-date.

Long Menus

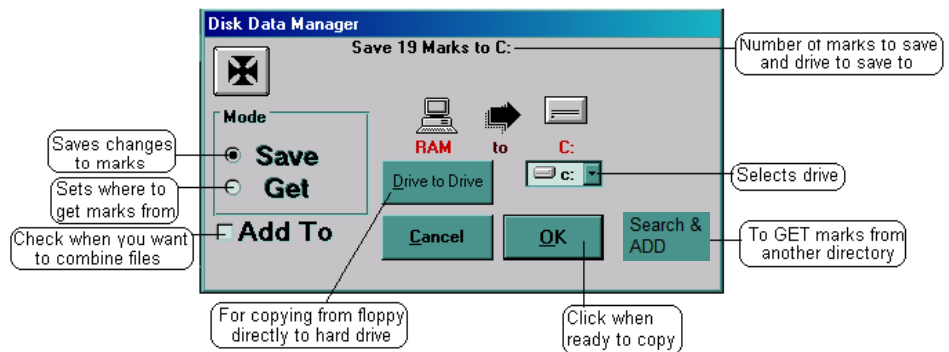
Data Menu

Click on *Data* in the plotter menu bar to call the *Data* menu. This menu is used to load and save important WindPlot data. Remember to press the **Esc** key to bypass checking for duplicates.

Data	Marks	I
Marks	F9	←
Tracks	←	←
Charts	←	←
About	←	←
Exit	←	Ctrl+C

Data ' Marks

This menu item is for copying mark data files to/from RAM and disk. By clicking the appropriate boxes, you can copy mark files & add to mark files from RAM to disk, from disk to RAM and from disk to disk. It lets you know



how many marks are going to be copied and gives a pictorial view of what is going to happen. **This is how you should save your daily data** (the save mark button on the button bar will do the same and faster). Backup will not serve this purpose because backup only makes a backup copy of the data on the hard drive **DISK** for safety reasons and never saves what you have in RAM that has the most current data. Once you have **SAVED** your data to the hard drive then it is a good idea to use *Backup* to back a backup copy of the hard disk to a external memory disk like a memory stick.

Search & ADD marks from any drive/or directory (Use this step if using a CD to get data).

If you have marks on a thumb drive or CD or anything else that you want to add to your WindPlot program then call the *Disk Data Manager* window and click the *Search & ADD* button.

- 1) You are given the choice to search automatically (click **YES**) or manually (click **NO**).
- 2) Click *Yes* in most cases for the automatic method and then click the *Search Now* button to begin.
- 3) In a few minutes a list of all mark files found will appear. The file names are “**MARKPNTS.DAT**”.
- 4) Look for the mark file date, location that you want and click on it so it is highlighted.
- 5) Click on **OPEN** to add the marks.

If you selected *No* to manually load them you will need to steer the windows explorer window to where the “**MARKPNTS.DAT**” file that you want to add is located and click on *Open* to add the marks.

Mark Data Compression (for old floppies only that are now obsolete)

Save more marks to floppy with data compression turned on. Just make sure the *Disable Compression* check box is not checked in the WindPlot *Backup* menu (Compression may not work on all computers giving you an error when saving marks). Data loss is more likely to happen with compression turned on, it is recommended to turn compression when disk space is **NOT** an issue.

To save marks to default hard drive:

(Default drive is the drive WindPlot loads marks from when first started.)

- 1 Click *Data* in the WindPlot menu then click on *Marks*.
- 2 A dialog box will appear indicating the number of marks that will be saved and where the marks will be saved too.
- 3 All you have to do is click on *OK* and the marks will be saved (or in one step: Press **F9**).

To save marks to another drive (floppy, hard drive or USB memory stick):

- 1 Click *Data* in the WindPlot menu then click on *Marks*.
- 2 A dialog box will appear indicating the number of marks that will be saved and where the marks will be saved too.
- 3 Click the down arrow next to where it indicates the current drive and select a new drive.
- 4 Click on *Ok* to complete the save (place a floppy in first if you selected A or B).
- 5

Changing default load/save drive or Getting (LOADING) marks from another drive:

Each time you start WindPlot, it loads marks and tracks automatically. The drive where it loads this from is called the DEFAULT DRIVE. The current default drive is shown in the marks or tracks SAVE dialog box (menu path: Data ' Marks or Data ' Tracks) next to the down arrow on the right.

- 1 Click *Data* in the WindPlot menu then click on *Marks*.
- 2 A dialog box will appear indicating the number of marks that will be saved and where the marks will be saved too. If you are getting marks from a memory stick then place the memory stick in before starting WindPlot. Click on *Get*.
- 3 Click on *Ok*.
- 4 A warning message will appear warning you that if you proceed, marks in RAM will be lost. If you want to proceed, then click on *Ok*.
- 5 A second dialog box will appear asking if you want to make this the default drive, click on *Yes*, if you want this as the drive WindPlot will load marks from when first started up, otherwise click on *No* and the default drive will remain unchanged.

Adding marks from another computer to yours (see next page for a new/better way) :

- 1 Click *Data* in the WindPlot menu then click on *Marks*.
- 2 A dialog box will appear indicating the number of marks that will be saved and where the marks will be saved too. (If using a memory stick, be sure it was plugged in before stating WindPlot).
- 3 Click the drive letter box and change it to the memory sticks drive letter.
- 4 Click the *Add To* check box. At this point, you the dialog box should indicate how many marks you presently have and how many you are going to add. **NOTE: BACKUP** files can be loaded from this menu and added. Just be sure to check the *Use Backup Dir. check box*. You will NOT see this check box unless there is a backup file present on the disk.
- 5 Click on *Ok* and wait while the marks are added. If all marks look like they loaded ok, be sure to save them (**F9**) to have them appear the next time you start WindPlot.

Copying Disk to Disk

In the preceding example the data was retrieved to RAM then saved to the hard drive. You can save a step (although it is not recommended) in that example by using the *Disk-to-Disk* function. Click the *Disk-to-Disk* button and another drive box will appear. Click on the disk containing the data and then click the **OK** button to copy the data directly from the memory stick to the hard drive.

Long Menus, Mark Menu

Viewing data on external drives like memory sticks

Although using the *About* menu is more efficient, you use data manager to view another drive by placing the disk in the computer. Save the data in RAM if it has not been saved. Call the *data manager*, and then click the down arrow in the drive box above the *OK* button and select the appropriate drive. Click on the *Get* mode so the dot appears in front of it and the total number of marks that are on the disk will appear in the top of the *Disk Data Manager* box. You can click on *Cancel* at this point or click the *OK* button and the marks will load into the computers RAM memory where you can go to the *Mark Search & Edit* list to see the marks. ***Be sure to repeat the above procedure to go back to the original drive after you have finished.***

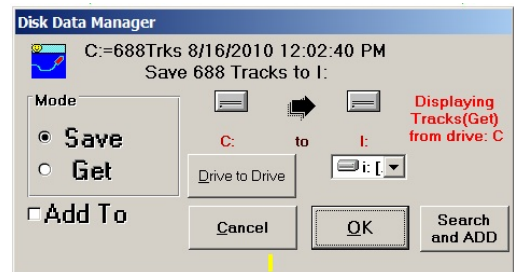
Getting/Adding data from other directories and Drives

WindPlot tries to keep things simple but sometimes mark files may end up in the wrong place or an experienced user may use My Computer to move files to another directory. The “Search and Add” button shown on the previous *Disk Data Manager* figure will do just that. Simply click the *Search & Add* button, click on “Yes” and select the drive and file folder and click on *Open*. You will be asked if you want to add the marks found to the ones already in RAM.

You can search for ALL AVAILABLE MARKS IN ALL DRIVES AND FOLDERS by clicking the *Search and Add* button and then click on *No*. A search for marks everywhere in your computer for marks and create a list. Simply enter the number in front of the marks file you want to load to add those marks. This method of adding marks works for tracks as well, use the same button.

Data ' Tracks

Unlike marks that are completely loaded into the computer's ram when powering up the program, each track is a separate file that are loaded into the computer as needed. Only the current tracks is always in RAM memory. Track files are named by number, track 1 would be “TRACK1.DAT” and track 100 would be TRACK100.DAT”. A separate track directory file is used to keep track of each tracks position, color, width, status, name and descriptions. The name of this file is “TRACKDIR.DAT” and MUST be included when transferring a group of files. WindPlot takes care of the updating of this file when you use the data manager to transfer track data.



This menu is only called for if you want to **copy track files from disk to disk** or when you want to GET tracks from another drive. When you click on *Tracks* in the *Data* menu you will be asked if you want to save the current track if you have not already saved it.

GETing tracks means that you are telling WindPlot where the tracks are that you want to work with on a day-by-day basis. When you power up the program looks for tracks from the drive that you have set it to GET from. Normally you set this to the computers main drive called drive **C**. To do this click on the dot in front of **GET** and set the drive letter to **C** by clicking on the button with a arrow pointing down and click on **C** then click **OK**. You do not have to use the C drive, those that work on many vessel's will use a thumb drive and assign this drive as the drive you GET tracks from.

Saving Previous Tracks: There are two methods of saving previous tracks from one disk to another. The compression type was for floppies since they could not hold much data. Now the new thumb drives are much bigger and hold as much as needed so compression is no longer needed. WindPlot will automatically switch between old and new methods when loading data as it detects which data type is on the disk.

Current Method (recommended):

The current track should be saved using the Tracks ' Current ' **Save**. Tracks must be turned on for this function to work. To save all tracks on C drive to an external drive (if using a memory stick, be sure it is plugged in before starting WindPlot):

- 1 Place a flash drive or re-write able disk in.
- 2 Click *Data* then **Tracks**.
- 3 If you are on the compression method, click the *Old Method* button. (Compression method was for use with floppies only, not recommended when using other media.)
- 4 Click *OK* in the *Disk Data Manager* dialog box.

Do not check *Add To* unless there are track files that were on the external drive that are different from the ones you have on your C drive. Otherwise, use the *Search and ADD* button to add tracks.

Search and ADD tracks from other drive and/or directories.

If you are adding data from another computer it may have been in another directory on the other computer and if so, you will not be able to use the *Add to* check box in the track data manager to get the tracks as it will not see them. Instead, always click the *Search and ADD* button to add tracks. With it you can find all track files from anywhere, CD, thumb drives or what ever and add them to your working track list. Search and Add will use the TRACKDIR.DAT file to know files to add.

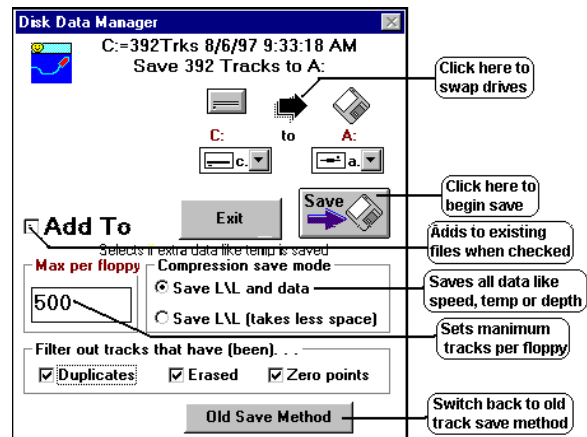
If you have tracks on a thumb drive or CD or anything else that you want to add to your WindPlot program them call the *Disk Data Manager* window and click the *Search & ADD* button.

- 1) You are given the choice to search automatically (click *YES*) or manually (click *NO*).
- 2) Click *Yes* in most cases for the automatic method and then click the *Search Now* button to begin.
- 3) In a few minutes a list of all tracks files found will appear
- 4) Look for the track file date, location that you want to add and click on it so it is highlighted
- 5) Click on **OPEN** to add the tracks to your WindPlot track list.

If you selected *No* to manually load them you will need to steer the windows explorer window to where the **TRACKDIR.DAT** file that you want to add is located and click on *Open* to add the marks.

Compact and Save Tracks (alternative way of saving tracks **WITH FLOPPIES!**)
“Track Compactor”

The old track save menu has been greatly improved. Now your don't have to worry about keeping the



Long Menus, Mark Menu

number of tracks down just because you want them to fit onto a floppy. Depending on the size, the new track save can hold as many as 1000 tracks onto a single floppy. It also is equipped with filters to keep duplicate, erased and zero length tracks from taking up wasted space on the floppy. When more than one disk is required, the disks are independent of each other. That is, they can be loaded back in any order, even if only one disk is reloaded it will work. You do not have to worry about loading a disk that is already loaded as the program will only load the same track once.

Saving tracks to floppy (floppies are outdated, you can most likely skip this part)

- 1 Place a floppy you want to save the tracks to in the floppy drive.
- 2 Click on *Data ' Tracks* menu in WindPlot.
- 3 If you have the old tracks menu, click the *Floppy compression* button so the above menu appears.
- 4 If you already have data on the floppy that is not the same that is on the hard drive, then click the *Add to* check box so that it is checked (°). You should NOT have this checked for every day track saving.
- 5 Select what tracks you want to filter out. Usually you should leave all of these filters checked.
- 6 Click the *Save* button. It should have a picture of a floppy disk on it if the drives are set right.
- 7 Wait several minutes for tracks to be saved. The top of the box will say DONE when finished.

Loading tracks from floppy (floppies are outdated, you can most likely skip this part)

- 1 Place a floppy you want to load tracks from in the floppy drive. If more than one disk, place one of the disk in the drive and repeat for the rest of the disk when this one is finished.
- 2 Click on *Data ' Tracks* menu in WindPlot.
- 3 If you have the old tracks menu, then the tracks on the floppy are the old style and you will have to load them the old way.
- 4 If you already have data on the floppy that is not the same that is on the hard drive, then check the *Add to* check box. You should NOT have this checked for every day track saving, it is for combining tracks from another source.
- 5 Select what tracks you want to filter out. Usually you should leave all of these checked (°). If you have a lot of tracks and have never used this method, you may be surprised to find out how many duplicate tracks you had when you end up with a much lower track count when finished.
- 6 Click the black arrow that is between the picture of the floppy and hard drive. It should switch the pictures around so it shows the floppy pointing to the hard drive.
- 7 Click the *Save* button. It should have a picture of a hard drive on it if the drives are set right.
- 8 Wait several minutes for tracks to be saved. The top of the box will say DONE when finished.

Data ' Charts

You can load just about any chart from this menu. (Except C-Map)

- 1 Place CD with the charts in the drive.
- 2 Click on *Data* then on *Charts*.
- 3 Some charts it will just ask to load, then just click on "Yes" and skip the rest of these steps
Otherwise it will ask if you are installing new charts, click on *Yes*.
- 4 It will then ask if your installing from a CD, click on *No* if from floppy or *Yes* if on CD.
- 5 If doing floppies, change drive to *A* for floppies then click on *.Begin Search*.
For CD's, just answer yes or no depending on if you want it copied to the hard drive.

Chapter 2, General Information

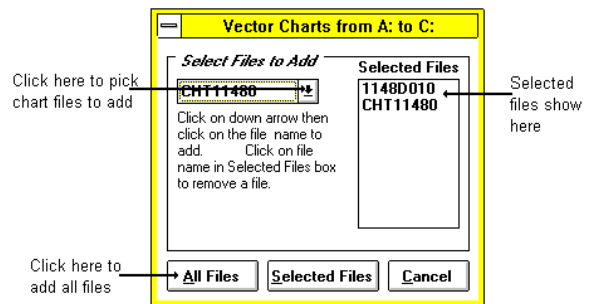
- 6 For floppies, a few seconds, a dialog box will appear. Select the files you want to copy from the drop down box and then click on *Selected Files*, or click on *All Files* if you want to copy all files to the floppy disk (land marks will not be copied).

NOTE: WindPlot scans all drives for charts to load when it is first started. So the easiest way to load charts is to place the chart CD in the drive before you start WindPlot and then follow the messages from WindPlot from there.

This menu is used to load P-Sea Vector charts made for WindPlot that comes on *floppy* diskettes (but not CD's). **To load a chart** just place the disk in the floppy drive and click on *Data* then *Charts*. A dialog box will appear asking if you are loading new charts or depths. Click on *Yes*, and you can load vector charts and MapTech True charts. If you answer no, the *Disk Data Manager* dialog box will appear where you can switch the drive to just look at vector charts. P-Sea Soft vector type of charts is the only ones you can copy back to the floppy. MapTech charts on floppies must be installed from the Windows *Start* ' *Run* from Win 98, 2000pro, ME/XP and then by typing **A:\install** or **B:\install** if this menu does not load them.

If you click on *Yes* and the files are anything but P-Sea Software vector charts, the program will automatically start loading the files. If more than one disk is required, the program will stop and prompt you for the next disk. When all disks are loaded, the program will ask you if you want to turn on the function and you can by clicking on *Yes*.

If loading **Vector charts** and you click on *Yes* the vector chart dialog box will appear as shown. Normally you would just click the *All Files* and all vector files will load. You can click the down arrow button and a list of vector files on the floppy will appear. Click on any file and it will be added to the list. When all the files are listed that you want copied, click on the *Selected Files* button and they will be loaded. There are



three types of files that make a vector chart. Island contours start with *ISL*, land contours start with *CHT* follow by the chart number. Depth contours start with the chart number then a *D* followed by the depth.

Vector chart files . . .

CHT18400.DAT = Land Contour

ISL18400.DAT = Island Contour

1840D010.DAT= 10 fathom/foot depth contour

After the chart files have loaded, you are asked if you have more charts. If you click *Yes* then wait until it ask for the next chart. You are asked if you want to load the land marks that are included with the vector charts. Click on *Yes* to add the land marks to your marks presently in RAM then place the next disk in if there is one. You can wait to install the marks from vector charts until later. If you do this, you will need to install the marks only. This is done through the *Data* menu then by selecting *Marks* instead of *Charts*. Instruct the program to *Get* the marks and *Add to Ram*. See the first part of the instructions for the data menu for more details.

Long Menus, Mark Menu

After all charts and land marks load you are asked if you want charts turned on. Click on *Yes* and the charts will begin to load into memory. After the charts load, click on the range button to call the range dialog box and click the *Show Mini chart box* if it is not "X"ed and the mini chart window will appear on the plotter screen in the lower right. Click the *Cancel* button to exit the range box.

Installing MapTech Charts True Charts (not BSB)

NOTE: This is a very old type of chart, most likely you can skip this section.

MapTech charts are not always loaded from the plotter program. If the plotter program says "NO CHARTS FOUND" while trying to install MapTech floppy charts then you will have to install them with the instructions that came with the disks. To install MapTech charts, click on the Windows *Start* button, click on *Run* and type in the following:

**A:\INSTALL
(or B:\INSTALL) Enter**

The follow the instructions as they appear on the screen. Be sure to select TRUE CHART when it asked for type of chart to install. When finished installing, go to the plotter and use the *Raster Control Panel* in the plotter *Window* menu to turn them on.

To turn the new charts on, click on *Window*, then on *Charts/Cartography*, and then on *Raster* to call the raster chart menu. Click the *True Chart* button to activate the list for MapTech charts. Now select the drive they were installed on from the drop down drive list box that is on the lower left of the menu. Click the *Default* directory and *Update* buttons or select the MAPS directory from the directory list. You should end up with a path that looks something like C:\MAPS and you should see the new charts on the raster chart list.

If the install program did not put the charts in the MAPS directory then you will have to move them there but only the HDR files should be in the MAPS\CHARTHDR directory. The image files should be in a directory using the chart name like; MAPS\M00502S0.

Data ' About

Click on *Data* then on *About* to call the *About P-Sea WindPlot Data Files*. This dialog box is used to explore the data files the plotter program uses on any disk. It shows the number of marks, tracks and chart points that are available and how many are in the computer at present. If vector charts are on the disk, a list box will appear. Click on

Default Drives	Date	Time	On Disk	Total Loaded
Marks C:\PC-PLOTT\	8/10/98	8:35:30 PM	71	54
Tracks C:\PC-PLOTT\	9/5/98	10:38:34 AM	12	2
V.Chart C:	8/22/98	8:15:32 AM	100138	None

Available disk drives:
A No Disk
C 2%/24.1Mb
D 4%/41.7Mb

Free Disk Space: c: [...]

Buttons: Raster Charts, Exit, Directories

Callouts:
- If Xed, there is a backup file on this drive (points to 'Has Backup file')
- Vector chart list. Click on any to erase them from the hard drive. (points to 'Vector Chart List')
- Click here to change the drive you are viewing. (points to drive dropdown)
- Changes directories where marks, tracks and charts are started. (points to 'Directories')
- Available disk space remaining on all drives (points to disk space section)

the down arrow and a list of the charts will appear. Click on any file to delete it from the disk. Located

Chapter 2, General Information

near the bottom center is a drive select box, click on the down arrow next to this box to present a list of available drives. Click on any of these drive letters to change the drive you are exploring. It also lets you know if any backup files are on the disk. (It does not tell you what is on the backup. You have to use the back up box for that). It also lets you know how much disk space is available on the disk. *Be sure to change back to the original drive when you are finished.*

Note: *Available Disk Drives:* 2 Gigs is as high as the program will list, for drives that list as 2 gigabytes, they may have more available space than listed

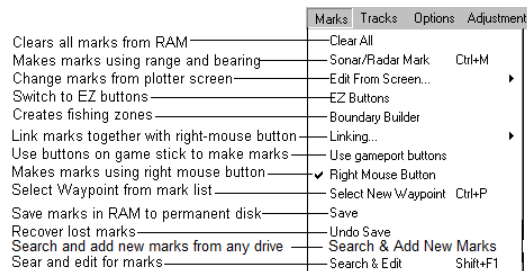
Directory Button

Click on the *Directories* button to select another directory in which to run the program. You cannot copy files from one directory to another without using an external memory drive in between but you can use different directories for different fishing areas. The default directory (the main directory) will always be the directory when the program is first turned on. You must switch to another directory after starting the program. The directory names other than the main start with *MAP_SET* because this is the way the *DigiChart* program sets up the vector chart files when charts are made. That way the two programs are compatible. If you have the *DigiChart* program, it is recommended to put the tracks and marks in the same directory as the charts you make. That way you when you switch directories, all marks, tracks and charts will be on the same directory.

Long Menus, Mark Menu

Mark Menu

Marks can be the same as waypoints in P-Sea WindPlot. They can be used to mark and identify any spot in the world. They can have descriptive notations to tell you why the mark is there. A user definable symbol can be used or no symbol at all and up to 92 colors. Any number of marks can be connected to another mark with a line. The range and bearing from the ship to each mark is provided to aid you in planning your fishing strategy or in navigating to the spot. A proximity alarm can be placed on any mark.



If you are in *Short Menus*, you will need to click on *Long Menus* in the plotter menu bar in order to get all menus to show before continuing in the long menu section. Clicking on *Marks* in the plotter menu bar brings down the following menu list. When a group of buttons show, click the *Buttons off* button.

Marks ' Clear All

Caution! This will wipe out any marks in the computer's volatile RAM memory. If you have made any marks that you want to keep and have not saved to permanent disk storage, then you should do so before clearing all marks. Marks on any disk are not cleared unless you instruct to do so. This will clear all marks, links and descriptions from the computers RAM memory without changing any marks on any disk. You are given a chance to clear all but land marks also. Then you are given a choice to remove the mark file from the permanent default disk drive, then at this point all of your marks are gone for good.

To clear all marks, click on *Marks* in the plotter menu bar to get mark menu shown above. Click on *Clear ALL*, and then a message box will appear asking if you want to save land marks? Click on *Yes* and all except land marks will clear and the plotter screen will redraw. Click on *No* and all marks will be cleared and then it will ask if you want to erase the marks from the disk drive. Click on *Cancel* to abort clearing any marks. The marks are cleared from RAM only if you choose to do so. Marks that are saved in this fashion can still be recovered with the *Undo Save* that is described later whereas those that are erased from the drive can never be recovered.

Marks ' Sonar/Radar Mark

Most radars and sonar's have a cursor that will give you the range and relative bearing to any target on their screen. Call this function to make a mark on the plotter screen from the range and bearing. It requires that you set the type of distance measurement; feet, fathoms, meters or miles. It also requires a good bearing input to the plotter. The bearing either comes from a NAV device or best is from a fluxgate compass input. DGPS will give a good bearing but you must be moving in a steady direction for the bearing to be correct. Loran or GPS most likely may not give a satisfactory bearing, it is best to select the non-relative target bearing input and use your ships compass and the relative bearing.

To enter a Sonar/Radar mark

- 1 Click on *Marks* in the plotter menu bar then click on *Sonar/Radar Mark*.
- 2 Check the *Relive to present heading* if you have a good heading input.
- 3 Click on the type of distance measurement.

Long Menus, Mark Menu

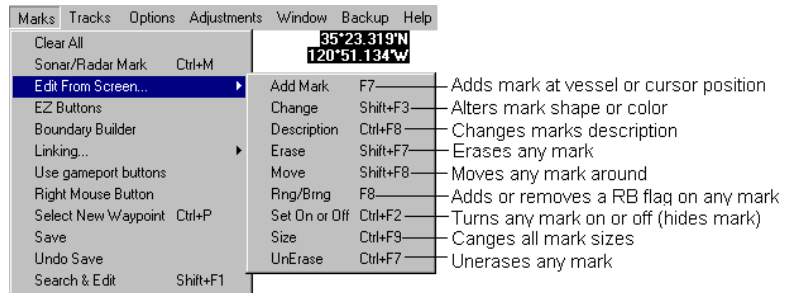
- 4 Click the *Range* box, enter the range and press **Enter**.
- 5 Enter in the bearing (relive to boat or true reading) and press **Enter**.

The mark is made on the screen when the last **Enter** was pressed in the last color and shape.

Marks ' Edit From Screen

Click on *Marks* then click on *Edit From Screen* to call the mark editor menu.

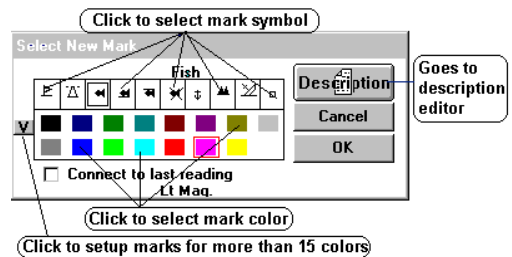
This will only edit marks that are appearing on the present plotter screen. You must use the *Marks Search & Edit* menu to find and edit any other mark not showing on the screen.



Marks ' Edit From Screen ' Add Mark

This will add a mark at the vessel's current position when the cursor is turned off. It will put a mark at the cursor's location when the cursor is on. After selecting this option you have 30 seconds to change the default mark settings. If you do nothing in 30 seconds the mark is made for you and the make new mark window closes.

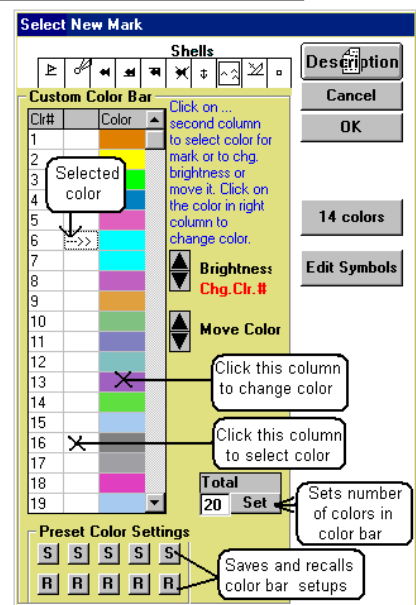
To add a mark at the vessels position, make sure the cursor is off by pressing the **Esc** key and then click on *Marks* in the plotters menu bar to call the mark menu. Then click on *Edit from Screen* then on *Add Mark* (or press **F7** key on the keyboard). The *Select New Mark* dialog box will appear. Click on **OK** to accept current settings or select a new color and shape by click on the appropriate boxes then click on **OK**.



To add a mark at the cursor position, turn the cursor on (**F2**) and place it to where you want the mark to be made (enter the Lat/long, range and bearing or drag it). Click on *Marks* in the plotters menu bar to call the mark menu. Then click on *Edit from Screen* then on *Add Mark*. The *Add mark at Ship* dialog box will appear. Click on **OK** to accept current settings or select a new color and shape by clicking on the appropriate boxes then click on **OK** (selections are boxed in).

Expanded Mark Colors

The manual color bar that was created for the 3D SeaBed program has been adopted to work with the marks/hangs in WindPlot. To get the expanded window simply call up the *Select New Mark* window by pressing **F7** or edit a mark. Then click the "V" button located on the left of the window as shown above. The expanded window will




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appear as shown on the right. Enter the *Total* colors for the color bar (125 maximum) and click the *SET* button. Then one by one, go down the right-most column and click each row to select the colors you want in the color bar by clicking on the color in the *Windows Custom* color window. Then click on the center column to select a color for a mark or to change the brightness or position of the color in the color bar. When done with the color bar be sure to click one of the “S” buttons in the *PRESET COLOR SETTINGS* box located at the bottom of the window to save it (*R* button recalls preset color bars). Click on *OK* to exit or click on the *14 colors* button to return back to the old marks color bar. You can also edit the mark symbols by clicking on the *EDIT SYMBOLS* button and follow the directions in your manual on how to use the mark symbol editor (Look for “Window ' Marks ' Mark Symbol Editor”).

You can erase a mark on the screen when the cursor is on simply by placing the cursor on any mark and click on the description that appears in the lower middle of the screen. The mark dialog box will appear with an additional *Delete* button under the *OK* button. Just click this button to erase the mark from the screen and RAM memory.


Marks ' Edit From Screen ' Change

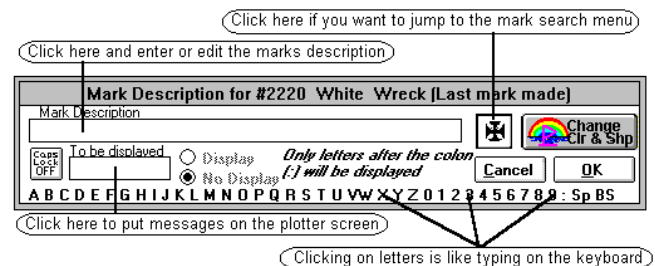
This function allows you to alter the shape and color of any mark showing on the plotter screen by placing a change icon  over the mark and clicking the mouse to select it. (A change icon is a yellow and a red circular arrow.) The changes are then done through the *Select New Mark* dialog box that appears.

To change a mark, first click on *Marks* in the plotter menu bar. Then click on *Edit from Screen* to call the mark edit menu. Now click on *Change* and the change icon will appear. Place this icon directly over the mark to change using the mouse or the keyboard arrow keys. Click the left mouse button to select the mark or press the space bar twice if you used the arrow keys. The *Select New Mark* dialog box will appear. Click on *OK* to accept current settings or select a new color and shape by clicking on the appropriate boxes then click on *OK*. Click on *Stop Changes* button in the upper left of the screen when finished to return to plotting or just press the **Escape** key.

If you need to move beyond the plotter screen, move change icon to the edge of the screen and press the **Home** key.

Marks ' Edit From Screen ' Description

This function allows you to change the description of any mark showing on the plotter screen by placing a change icon  over the mark and clicking the mouse to select the mark. The changes are then done through the *Mark Description* editor dialog box that appears.




To change a mark's description, first click on *Marks* in the plotter menu bar. Then click on *Edit from Screen* to call the mark edit menu. Now click on *Description* and the change icon will appear. Place this icon directly over the mark to change using the mouse or the keyboard arrow keys. Click the mouse button to select the mark (or press the space bar twice if you used the arrow keys). The *Mark Description* dialog box will appear.

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Click in the description box and enter the new description. Use the **Del** key to erase the old description if needed. Then click on *OK* when finished. Click on *Stop Changes* button in the upper left of the screen or press the **Escape** key when finished to return to plotting.

If you need to move beyond the plotter screen, move change icon to the edge of the screen and press the **Home** key. When you use the keyboard arrow keys, you can move beyond the plotter screen by moving the icon to the edge of the screen and releasing the arrow key.

Marks ' Edit From Screen ' Erase


This function allows you to delete (erase) any mark showing on the plotter screen by placing a change icon (shape of pencil eraser ) over the mark and clicking the mouse to select the mark. Any mark you erase using this function may be un-erased so long as you have not saved the marks to the disk. Use the un-erase function that is described later in this section.

To erase a mark, first click on *Marks* in the plotter menu bar. Then click on *Edit from Screen* to call the mark edit menu. Now click on *Erase* and the pencil icon will appear. Place the eraser end of the icon directly over the mark to change using the mouse or the keyboard arrow keys. Click the mouse button to select the mark (or press the space bar twice if you used the arrow keys). A dialog box will appear to ask you if you want to erase the blinking mark. Click on *OK* if the correct mark is blinking. Sometimes the marks are so close together that the wrong mark will be blinking. In this case, then click on *Next* and the next closest mark will be selected and begin to blink. Click on *OK* when the correct mark is blinking. Click on *Stop Changes* button in the upper left of the screen when finished to return to plotting.

When you use the keyboard arrow keys, you can move beyond the plotter screen by moving the icon to the edge of the screen and releasing the arrow key or use the home key to center the icon.

Marks ' Edit From Screen ' Move


At some time you may find you have a mark on the screen that is off just a little from where it should be. If you can visually tell where it should be you can use this function to move it to the correct location without entering in any numbers.

To move a mark, first call this function by clicking on *Marks* in the plotter menu bar. Then click on *Edit from Screen* to call the mark edit menu. Now click on *Move* and an icon will appear on the screen in the shape of a small hand . Place this hand over the mark to move and drag the mark to the correct location. Click on *Stop Changes* button in the upper left of the screen when finished to return to plotting.

You can also use the keyboard arrow keys to move the hand icon but this time the space bar is only pressed once to grasp the mark. Then use the arrow keys again to move the mark to the new location and press the space bar once more to release the mark. You can also place the icon near the edge of the screen and press the **Home** key to move the screen. When you use the keyboard arrow keys, you can move beyond the plotter screen by moving the icon to the edge of the screen and releasing the arrow key.

Marks ' Edit From Screen ' Rng\Brng


Any mark, showing or not, can have a flag attached to it to continuously display the range and bearing to the mark from the ship. There is no limit to how many marks you can have the flag set to show but only 50 or less flags can be displayed at any one time. For example, if you have 100 marks with all set to display an R/B flag, as long as less than 51 are showing then all can have a flag. If you increase the range so that all 100 marks are visible, then only the first 50 will have the flag showing. The *Window* menu can be used to turn them all on or off also.

To add or remove an R/B flag from a mark, first call the function by clicking on *Marks* in the plotter menu bar. Then click on *Edit from Screen* to call the mark edit menu. Now click on *Rng/Brng* and an icon will appear on the screen in the shape of a small flag . Place the end of the flag over the mark and click the mouse to add or remove the flag. Click on *Stop Changes* button in the upper left of the screen or press **Escape** when finished to return to plotting.

If you need to move beyond the plotter screen, move RB icon to the edge of the screen and press the **Home** key. You can also use the keyboard arrow keys to place a flag by pressing the space bar twice when the icon is over the mark. When you use the keyboard arrow keys, you can move beyond the plotter screen by moving the icon to the edge of the screen and releasing the arrow key.

You must have the R/B flag set on any mark that you want the mark proximity alarm to work on.

Marks ' Edit From Screen ' Set On or Off

This function allows you to change the display status of any mark on the plotter screen by placing a change icon in the shape of a yellow and a red circular arrow  over the mark and clicking the mouse to select the mark. A black mark indicates a mark that has the display status set to OFF.

To change a mark's display status, first click on *Marks* in the plotter menu bar. Then click on *Edit from Screen* to call the edit menu. Now click on *Set on or off* and the change icon will appear. Place this icon directly over the mark to change using the mouse or the keyboard arrow keys. Click the mouse button to select the mark or press the space bar twice if you used the arrow keys. The mark will turn black if it is off and the current color if on. Click on *Stop Changes* button in the upper left of the screen when finished to return to plotting.

A mark can display an R/B flag or a description next to the mark even if a mark is turned off (hidden). A good use of this feature might be to make a mark indicating a depth. You would set the display status of the mark to off but put in a depth value in the description so it will display on the screen. Then all you see is the depth number on the screen in place of the mark symbol.

When you use the keyboard arrow keys, you can move beyond the plotter screen by moving the icon to the edge of the screen and releasing the arrow key or use the **Home** key to re-center the plot.

Marks ' Edit From Screen ' Size

Marks can have 10 sizes. When marks are resized, all marks will change at the same time. You cannot have one big and one small mark on at the same time. When you select this, you are asked to input a value from 1-10 (1 being the smallest) use the keys along the top of the keyboard to enter a value and click on *Ok*. The screen will redraw with the new mark sizes.

Marks ' Edit From Screen ' Un-erase

This function allows you to un-delete (un-erase) any mark that would be showing on the plotter screen by placing a change icon in the shape of a pencil over the black mark and clicking the mouse to un-erase it.

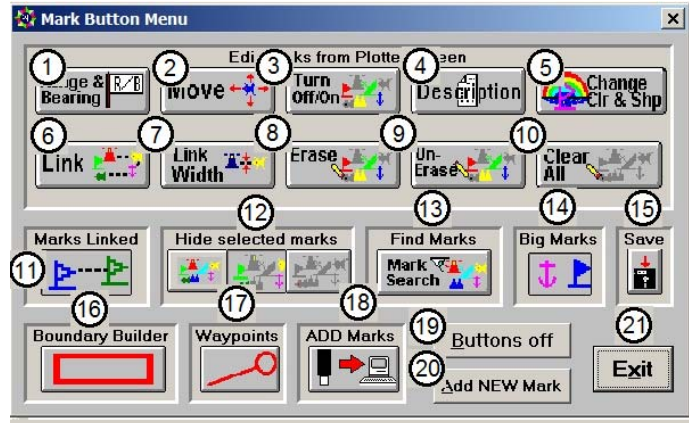
To un-erase a mark, first click on *Marks* in the plotter menu bar. Then click on *Edit from Screen* then click on *Un-erase* and the pencil icon will appear. The screen will redraw with all erased marks in black. Place the pointed tip of this icon directly over the black mark to un-erase using the mouse (or the keyboard arrow keys). Click the mouse button to select the mark (or press the space bar twice if you used the arrow keys). The *Select New Mark* dialog box will appear. Click on *OK* to accept current settings or select a new color and shape by clicking on the appropriate boxes then click on *OK*. Click the *Stop Changes* button in the upper left of the screen when finished to return to plotting.

When you use the keyboard arrow keys, you can move beyond the plotter screen by moving the icon to the edge of the screen and releasing the arrow key.

Marks ' EZ Buttons

By clicking on *EZ Buttons* in the *Marks* menu you change the menu to a set of buttons that provide point and click access to some of the programs most useful features as shown below.

It is the preferred mode when in Touch Screen mode.



#1 For example, clicking on the *Range & Bearing* button located in the upper left corner of this *Mark Button Menu* is the equivalent of clicking on *Marks* in the main menu bar and then clicking on *Edit From Screen* in the *Marks* menu and then clicking on *Rng\Brng* in the sub-menu.

Thus, the results of clicking on a button in the *Mark Button Menu* are the same as going through the menus *Marks ' Edit From Screen ' Rng\Brng*. These results are described above.

#2 Click the **Move** button to drag a mark to a new location on the plotter screen.

#3 Click the **Turn Off/On** button to select what marks will display from the plotter screen.

#4 Click the **Description** button to change the description of any mark on the plotter screen.

#5 Click the **Change Clr & Shp** button to change the color or shape of any mark on the plotter screen.

#6 Click the **Link** button to link any two marks on the plotter screen with a line.

#7 Click the **Link Width** button to change the width of the line that links two marks together.

#8 Click the **Erase** button to erase any mark from the plotter screen.

#9 Click the **Un-Erase** button to bring back a mark that had been erased but not cleared from memory.

Erasing a mark just changes the color to black so you can bring it back with this function but if you clear erased marks from memory then they are permanently erased and can not be brought back.

#10 Click the **Clear All** button to erase all marks from memory. You will be asked if you want to clear land marks out as well. They are marks that were included with the old vector charts, most likely you do not have any so click *No*. Then you are given the choice to remove them from the hard drive too.

#11 Click the **Marks Linked** or **Mark Links Off** button to turn links between marks on and off.

#12 Click the **Hide selected marks** or **Hide all marks** or **Show all marks** to set mark status.

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- #13 Click the **Find Marks** to call the *Mark Search & Edit* window.
- #14 Click the **Big Marks** or **Small Marks** button to change the size of the marks on the plotter screen.
- #15 Click the **Save** button to save marks that are in RAM memory to the permanent hard drive.
- #16 Click the **Boundary Builder** button to call the boundary builder window.
- #17 Click the **Waypoints** button to call the *Waypoint and Routes* window.
- #18 Click the **Add Marks** to load and add marks from another drive/directory to your WindPlot program.
- #19 Click the **Buttons off** button to switch back to normal Windows menu list.
- #20 Click the **Add NEW Mark** button to create a new mark at the boats position or at the cursor..

The only drawback from the EZ buttons is that it only has the most often used items of the normal mark menu. You will need to turn off the EZ buttons (by clicking the *Buttons Off* button) if you want to access the other mark menu features.

Marks ' Boundaries

New from version 7.0 on the Boundary Builder was added by request of many WindPlot users. It allows you to enter create boundaries with names using the plotter screen to drag and drop corners. You can also select points from the *Mark Search and Edit* in WindPlot or enter corners in Latitude/Longitude. You can even enter in TD's but be aware the corners are not calibrated like Marks are. The program can be setup to alarm on the boundaries too. Each boundary can be shaded as well.

General information

Each boundary is a separate file located in the **BndryWP** folder of the WindPlot directory or a folder of your making. Each file begins with BND followed by the number of the file and with a DAT extension. Unlike track files, the boundary files are self-contained and you can copy these individually without any problem as long as the name isn't the same (renaming is allowed as long as you follow the proper format). The maximum distance between any line is 3000 miles. The *On Color* alarm is set to the current *Line Color* when the *Boundary alarm* is set.

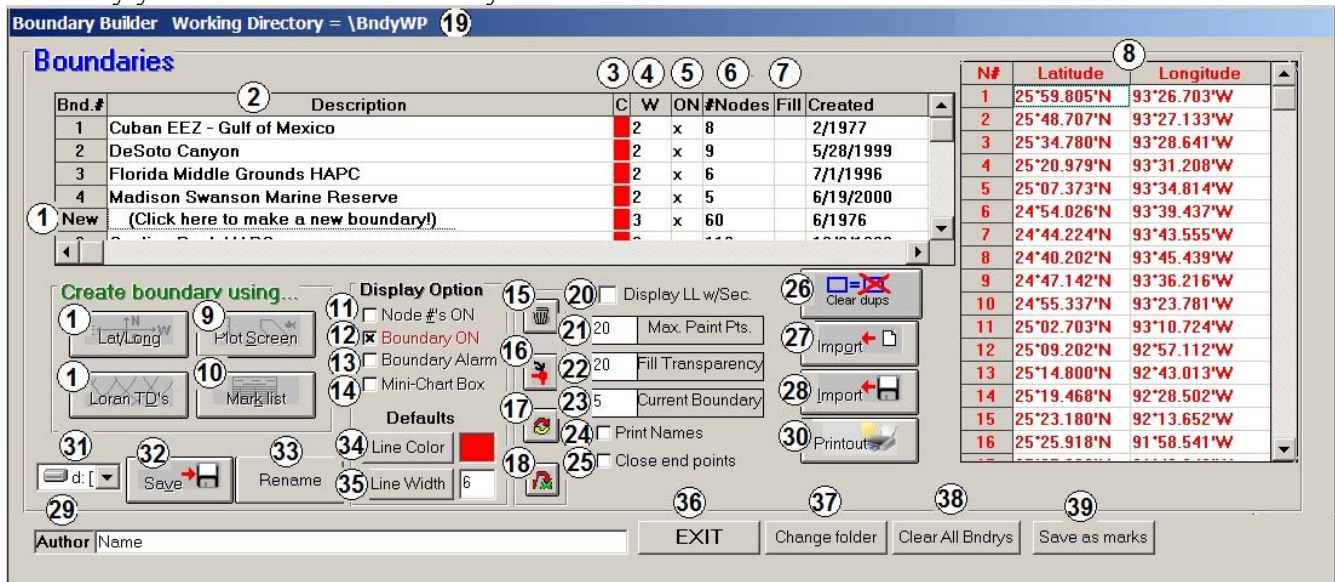
Things to do first to get your Boundary Builder setup

The first thing you should do before you start using the Boundary Builder is to determine the maximum number of links (from now on the corners will be referred to as NODES) or nodes you will have in any one boundary. Once you have set the number you should never change it. Keep in mind that you can always go to a larger number without any problems but you run the risk of losing nodes if you go smaller. We suggest 18-20 for a starting point if you are not sure.

The next thing to consider while your are creating boundaries is how you want to close the ends. You have the option of letting the program do this by checking the *Close Ends* check box. The other way is to put the first and last nodes with the same Lat/Long. thus closing the end. If you are planning to import any boundaries from linked marks then it is best to leave it unchecked as the computer has no way of knowing if you want then ends joined or not from linked marks. This means that in order to make a four-corner boundary you must have 5 nodes. You will need to set the color and width of the lines surrounding the borders. If you are going to use the boundary alarm, you need choose a color that is not used much on the background of your plotter screen as the color alarm will sound on any color that is the same as the border of your boundary. The width has to be big enough for the computer to detect, usually 3 is good.

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The last thing you need to do is to put your name or company in the *Author box*. Then when you build a boundary your name will be on it and you can tell it from one that someone else made.



Boundary Builder Window Layout

- #1 Click on any of these 3 items to start a new boundary by entering in known Lat./Longs or TD's.
- #2 List of boundaries that are currently available to use, you can click to open the nodes or change it.
- #3 Color of the boundary, you can click to change it.
- #4 Indicates the width of the boundary line, you can click it to change it.
- #5 This column indicates if the boundary is displayed or not on the plotter screen. You can click it to turn it off and on. It is on when the column is marked with an X.
- #6 This column shows how many nodes or corners there are in the boundary.
- #7 This box indicates if the boundary will be filled with a transparent color. Click it to change fill mode.
- #8 This is a list of the nodes in the currently selected boundary.
- #9 Click this button to generate a boundary from the plotter screen using the cursor, dragging and double-clicking to set nodes.
- #10 Click this button to use the mark list to select the boundaries nodes.
- #11 Check this box if you wish to see the number of the node appear on the boundaries on the plotter screen.
- #12 Check this to show boundaries, un-checked and no boundaries will be displayed.
- #13 Click this to have the program alarm if you cross the boundary line. It sets the on-color alarm to the color of the boundary line so only those with the same color will sound the alarm.
- #14 Check this if you want to see the boundaries in the mini-chart window.
- #15 Click this to delete a boundary.
- #16 Click this to have the plotter display the last node that you enter while you are creating a new boundary from the Boundary Builder window.
- #17 Click this to switch the node list between TD's and Lat./Long.
- #18 Click this to put the cursor at the location of the currently selected boundary.
- #19 Title bar shows current folder for where the boundaries are loaded from.
- #20 Check this box to display Lat/Long with degrees, minutes and seconds or un-checked it is just degrees and minutes.

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- #21 Maximum number of nodes any one boundary can have.
- #22 Enter in here the level of transparency you want the boundary color to fill with.
- #23 This shows the number of the currently selected boundary.
- #24 Check this box to see the names of the boundaries on the plotter screen but only if they have a fill color set.
- #25 Check this box to have the program draw a line from the first point/node to the last which is required for the fill mode or the entire screen may be filled with the fill color.
- #26 Click this button to have the program delete any duplicate boundaries that may have been loaded twice by accident.
- #27 Click this button to import boundaries made with text files.
- #28 Click this button to import boundaries from WindPlot's marks that were linked together to create a boundary.
- #29 Click here to enter your name or who you want to give credit to for making the boundary.
- #30 Click this button to print the currently selected boundary to a printer attached to the computer.
- #31 Shows what drive the boundaries are saved to, click the down arrow button to change to another drive.
- #32 Click this button to save the currently selected boundary or all boundaries to the selected drive.
- #33 Click this button to rename the currently selected boundary. It will change to SAVE when you are entering a new or editing a boundary.
- #34 Indicates the default boundary color used when creating a new boundary, click to change to a new color.
- #35 Indicates default boundary line width when creating a new boundary, click to change to a new width.\
- #36 Click to close Boundary Builder window.
- #37 Click to change to a different folder to get your boundaries from.
- #38 Click this to erase all boundaries.
- #39 Click this to convert the currently select boundaries nodes to WindPlot one 6.77 linked marks.

Calling the Boundary Builder Window

Call the Boundary Builder by selecting *Boundaries* from the *Mark* menu.

All procedures described here on assume you have the Boundary Builder Window already showing.

Setting Maximum Nodes

- 1 Click the white area next to *Max. nodes*.
- 2 Use the backspace & delete keys to erase the current value and enter a new one (do not press enter).
- 3 You need to restart WindPlot to have the new value take effect.

Entering your name or Company name in the *Author* box

- 1 Click on the white area next to *Author*.
- 2 Use the backspace & delete keys to erase the current name and enter a new one (do not press enter).

Changing boundary border line width and color

- 1 Click the *Line Color* button located in the lower-middle of the Boundary Builder window.

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- 2 Click on one of the 16 colors so it is surrounded by a red line.
- 3 Click the *Width* button and use the scroll bar to set your line width.
- 4 Click on *Ok* complete the changes.

Converting your Linked Marks to Boundaries


Importing/converting linked marks to boundaries is simple. Be sure to backup your mark files before converting them because conversion removes ALL links from marks as it does the conversions. The major difference with linked marks and boundaries is a mark can be linked to two other marks and boundaries can not. Boundaries are like track points and go from point to point so you will see gaps that will need to be filled in on some converted boundaries. These gaps were ones that were linked in two different directions. Add a node using the Boundary Builder to fix it later.

To convert Linked marks to Boundaries



- 1 Set the driver letter to where the marks are and click the lower *Import* (#28) button to start.
- 2 Enter #2 and click *OK* in the next message box.
- 3 Click on *Yes* to load from the drive..
- 4 It will come back to report how many links will be added, click on *OK*.

Creating New Boundaries

Creating Boundaries using the Plotter Screen

- 1 Click the button labeled *Plot Screen* in the lower-left of the window.
- 2 A message box will appear giving you instructions, click *Ok*.
- 3 Either pan around or enter a Lat/Long in the cursor box to place the cursor at the position of the first point.
You can also enter TD's in the cursor box by click the  red/yellow arrow button so the box is displaying TD's. We do not recommend this as these TD's will not be corrected. You can also enter a range and bearing in the cursor box.
- 4 Place the mouse arrow on the CENTER of the cursor and double-click to set the node.
- 5 Continue steps 3 and 4 until all nodes have been set and then click *Stop Changes* button to finish.

Creating Boundaries using Lat./Long. or TD's

- 1 Click on *New* located at the bottom row of the first column in the boundary grid box. Move the scroll bar to the bottom if you can't see the word new.
- 2 The program will ask if you want to create a new boundary, click on *Ok* and a new node grid will appear.
- 3 Click the  red and yellow arrow button located in the middle set of buttons to select if you want TD's or Lat./Long.
The top row of the node grid should change to indicate if you can enter TD's or Lat./Long.
- 4 Click on the Enter in the Lat./Long. or TD's in the proper columns.
- 5 Click the "Save Changes" button when finished.
- 6 Click the  button and enter a plotter range to view boundary as you create it.

There is no need to hit ENTER if you are entering TD's, the program will jump to the next column when you enter in the tenths of microseconds. Be sure your GRI and slaves are set for within 100 miles of area you are going to be working with. Do a trial conversion using the first node in the *Options'* *Conv.TD's*

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to *LL menu* to be sure.

When using Lat./Long., you must enter degrees and minutes followed by a **N** or **S** for Latitude and **W** or **E** for Longitude. You can also just press enter and it will assume the same hemisphere as your current position.

Creating boundaries from the Marks Search and Edit list

- 1 Click the *Mark List* button located in the lower-left of the Boundary Builder window.
- 2 The program will instruct you to click on the mark number in the first column of the mark list to select the first node.
- 3 Click on *Ok*.
- 4 Use the search to find the first mark to link and click once on the mark number in first column.
- 5 Repeat clicking on the mark number for all remaining nodes and click EXIT to finish it.
If you choose to leave the menu without picking any marks you will end up with a boundary with no nodes. Be sure to delete the no-node boundary from the Boundary Builder.

As you create each boundary, the program automatically adds the current date, how it was created and the author. You will need to go back and put a description if you desire it.

Adding or changing a boundary description

- 1 Use the scroll bar to locate the boundary and click where in the description column of that boundary.
- 2 The list of nodes should appear. If the list is there then use the DEL and Backspace keys to erase the current description and start entering the new description. Click the *Save changes* button or changes are saved when you either move to a new boundary or exit the list.

Adding or changing nodes in a boundary (Entering Lat/Long Points)

Nodes can be added, deleted or changed very easily.

- 1 You must first call attention to the boundary by finding the boundary and clicking on the boundary number in the first column.
- 2 A list of nodes should will appear on the right, simply click on the node you want to change or double-click the node to delete it.
To add a new node be sure to click on the first empty grid box available.
- 3 Enter in the new value if changing.
- 4 Changes will be saved when you either select another boundary or exit but you can click the *Save Changes* if you wish.

Inserting Nodes

Left-click first on the boundary node below where you want to add a node in. Now right-click on it this time to insert a new node, then just fill in the Latitude and Longitudes for the new node.

Deleting Nodes

Left click first on the boundary node you want to delete then press the **Del** (delete) key on the computer's keyboard.

Trashing (deleting) Boundaries

Simply double-click in the boundary number column to delete a boundary. A deleted boundary is permanently erased and is not recoverable.

Jumping to a boundary on the plotter screen

- 1 Click on any boundary so the its number appears in the *Current Node* text box.
- 2 Click the jump button which is the very bottom button of the four buttons located in the bottom-middle of the Boundary window (same as button shown here).



Saving a single boundary data files to a removable drive

- 1 Find and click on the boundary number in the first column of the boundary you want to save.
- 2 Locate the drive change box in the lower-left and change it to “A” or “B” if floppy or “D”, “E” or what ever the drive letter of your removable drive is
- 3 Click the *Save* button located in the lower-left of the Boundary window.
- 4 Make sure drive is ready (write protect off?) and click on *Yes* to save the boundary.

Saving all boundaries to a removable drive

- 1 Make sure a memory stick is in the computer before starting WindPlot.
- 2 Locate the drive change box in the lower-left and change it to “A” or “B” if floppy or “D”, “E” or what ever the drive letter of your removable drive is (double-click on “My Computer” for a list of available drives.)
- 3 Click the *Save* button located in the lower-left of the Boundary window.
If you have clicked on one of the boundaries you will be asked if you just want copy it, in that case click *No*.
- 4 A message box will tell how many boundaries you will save and ask if you wish to continue, click on *Yes*.

Adding or retrieving data from a removable drive

- 1 Make sure the drive is ready.
 - 2 Locate the drive change box in the lower-left and change it to “A” or “B” if floppy or “D”, “E” or what ever the drive letter of your removable drive is
 - 3 Click on the *Get* button located in the lower-left of the Boundary window.
- ALL boundaries are added, you have no other choice.

Changing Folders

Click the “*Change Folders*” button to create or change boundary folders. When creating a new one be sure to use **Bnd** as the first three letters and then numbers or letters after that (Exp. **BndEast**) or just enter the number in front of the existing boundaries on the list to choose one that already exists.

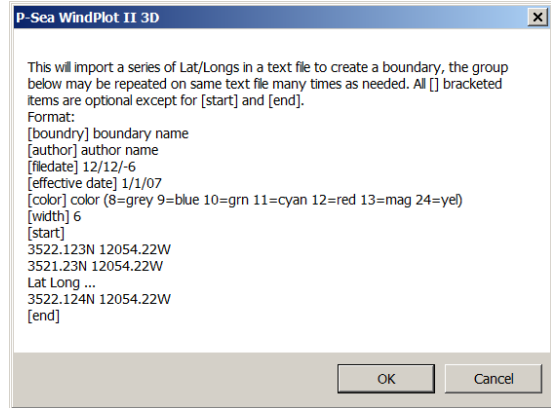
Checking and clearing out duplicate boundary files

Click the *Clear dups* button in the middle right of the window.

That’s It!

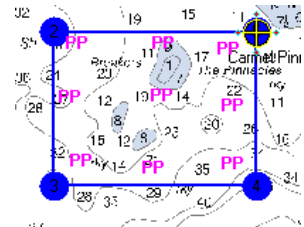
Importing boundaries from TEXT files.

Click button #27 to import boundaries made with a text editor in the format shown here to the right. Note: do not enter the Lat.Long.... this just means put as many Lat./Longs as needed. You may omit anything but the Lat/Longs to make a boundary but they must have the [Start] and [End] in brackets as shown.

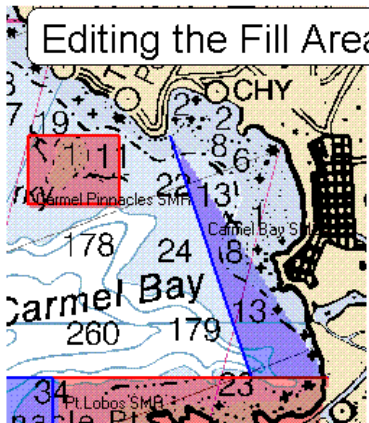
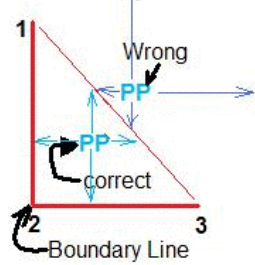


Color Fill In for Boundaries

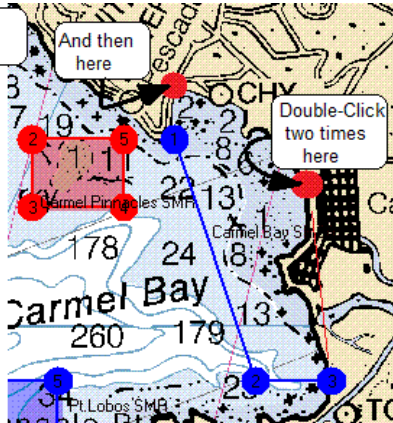
You can add color shading to your fishing boundary zones. The color of the shading will be the same color as the boundary line. You can change just how deep a color the shading is as well. It requires color Paint Point seeds to be placed within the boundary. Color bleeds out from these points until it reaches the boundary lines where it stops coloring. So you must make sure the seeds are placed with the boundary lines. When one is placed outside the lines, the entire plotter screen will fill with color. Since the seed must not be on the boundary line either, you should make sure the first point is as close to the center of the boundary as you can. The first point will be the only point that is used when you zoom out past 50 miles. Placing the first point close to a boundary line will cause the point to be on the boundary line when zoomed out and thus either not color in or even cause the entire screen to paint again. Make sure to put enough paint seeds in, especially if your working on small ranges, you can place as many as 20. If you find the boundary is not filling in when zoomed down then go back and add more paint seeds because the boundary won't color if there are not any paints seeds within the plotter screen view area. It is not required to join the last two points to close in a boundary when filling a boundary with color as the program will do this for you (it does it only when it does the coloring and then it removes this last line before it is displayed on the plotter screen).



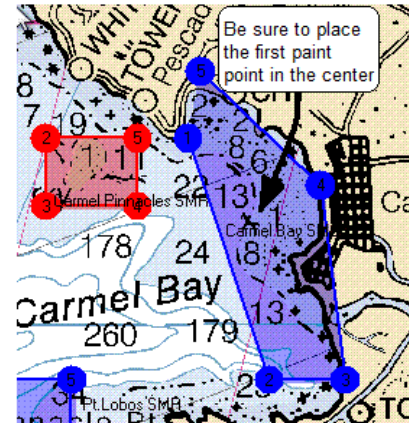
Place first Paint Point seed in middle then up to 20 distributed as shown here above



Editing the Fill Area
 With only three points given by the officials, you will need to add more points to make the area fill in.



And then here
 Double-Click two times here
 Click the Fill Column in the B.Builder & start the ADD PAINT POINTS mode for the boundary. Then Double-Click two times on the same point to create a new Node.



Then you will see the boundary fill in better after you are finished adding the paint point seeds

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To shade a boundary

- 1) you must first create the boundary using the boundary builder if it isn't already made.
- 2) If you want to view your points as you make them then click the jump to point button #18.
- 3) Then just click on the "Fill" column in the Boundary Builder window.
- 4) Click "Yes" that you want to add paint point seeds.
- 5) Click "Ok" to the information box.
- 6) The Boundary Builder window will disappear with the cursor in the vicinity of the selected boundary. Move the cursor to the first paint seed and double-click the mouse to set the Paint Point seed. You should see a PP where you double-clicked.

Double-Click on top of a Paint Point seed and select "Yes" **to delete** it or "No" to **add a new node**. Just make sure the place where you want to add a new node is close to the last node made (they are numbered on screen).

Click the "Stop Changes" button in the upper-left of the plotter screen when your finished.

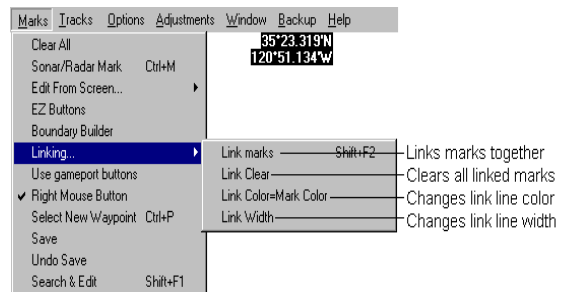
Changing the "Transparency" level of the fill color: You can change just how transparent (deepness) of the fill color by entering a value between 0 (solid) to 250 (very little color) by entering the value in the "Fill Transparency" box of the Boundary Builder window.

Print Boundary Name on the Plotter Screen

Check "Print Names" check box to have the boundary names printed on screen (paint point seeds must be set for this to work)

Marks ' Linking...

You can link any mark to another with a solid or dashed line. The lines can all be yellow or they can take on the color of the previous mark. They can have up to 15 different widths but all lines will be the same width at any one time. The link lines will only be dotted when set to a width of 1, any wider and they become solid.



Linking can be turned off completely without effecting the links themselves through the menu path; *Window ' Marks ' Linking on*. All previously linked marks will reappear when the linking is turned back on.


Marks ' Linking ' Link Marks

This function links or unlinks marks. You can have as many marks linked as you want but each link line requires computer time to draw so keep linking down to a minimum.

There is also a method of temporally turning off all link lines using the *Window ' Mark ' Show Link Lines* menu.

To add a link from a mark, first call the function by clicking on *Marks* in the plotter menu bar. Then click on *Linking...* to call the mark linking menu. Now click on *Link Marks* and an icon in the shape of

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an open hand will appear  Use the mouse (or keyboard arrows) to move the icon to the first mark to be linked. Drag (or press the space bar if your' using the keyboard) to the other mark to be linked. (Press the space bar again to release the link end if using the keyboard). Repeat this procedure as many time as needed.

To remove a link line, call the function just as described above but place the icon over one of the linked marks. When you click the mouse (or press the space bar twice) and the mark has only one link line, you are asked if you want to remove a link. If you click on *NO*, you can add a link but when you click on *Yes* the link is removed. If the mark has two lines, you are also given a choice of which link to remove. A box will appear with two check boxes in red and green. The links in question will also be redrawn in red and green. X the red box to remove the red link and/or the green box to remove the green link and click on *OK*. Click on *Stop Changes* button in the upper left of the screen when finished to return to plotting.

Marks ' Linking ' **Link Clear**

This function allows you to permanently remove all links from all marks at once. To remove all link lines from all marks, first call the function by clicking on *Marks* in the plotter menu bar. Then click on *Linking...* to call the mark linking menu. Now click on *Link Clear* and a dialog box will appear asking if you are sure you want to do this. All links will be cleared when the *Yes* button is clicked.

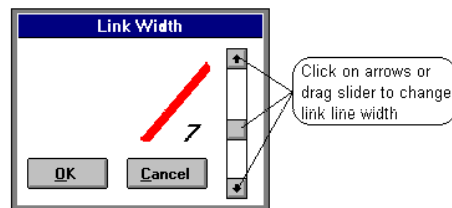
Marks ' Linking ' **Link Color = Mark Color**

This is a checked item. When this item is not checked, all link lines will be yellow. When this menu item is checked (°), the color of the link line will depend on the mark it is linked to. The line will take on the color of the first mark as it appears on the *Mark Search and Edit* list. Be careful, if the color is important do not use the sorting function provided in the *Window ' Mark ' Sort Marks* menu as it will rearrange the order of all marks and thus change the link color.

To activate this function, first call the function by clicking on *Marks* in the plotter menu bar. Then click on *Linking...* to call the mark linking menu. Now click on *Link Color=Marks Color*.

Marks ' Linking ' **Link Width**

This function calls a dialog box that alters the width of the link lines. All link lines will take on the same width. The link lines are always solid except when the width is set to one in which case the lines are all dashed.



Marks ' **Use game port buttons**

Game Pad/Joystick control

Days of the mouse are not gone but the joystick can provide a marginal improvement. It can take the place of the mouse when used with standard 2-D plotter display. Instead of click and drag with the mouse, just move the joystick to pan around charts. You can also program the joystick buttons to make a variety of mark shape and colors. Turn the 2D WindPlot cursor off when doing any programming of Joystick or game pad controls.

Long Menus, Marks Menu

Joystick setup for 2D WindPlot

WindPlot will work with just about any game pad or Joystick but it must first be installed in Windows. Follow the directions that come with the joystick, usually you just need to plug it in and make sure it is listed in the “Gaming Options” found in the Windows Control Panel. **Then you must install P-Sea WindPlot 3D** in order for the joystick to work, even if you have not purchased the 3D option. If you do not have a 3D WindPlot install disk, just take your standard WindPlot 7.08 or newer setup CD and run “SETUP3D” from the CD using Windows Explorer.

To program buttons 1 and 2, start WindPlot running and select the *Marks* menu and click on *Use game port buttons*. Now click on the yellow *Button 1* and pick a color and symbol from the *Select a color* box. Now repeat this for button 2.

If you have Windows 2000 you can check the “Joystick mouse” check box. When you use this feature you can turn the cursor on and pan around the charts by just tilting the joystick.

Some technicians know how to wire a couple of switches to work like a game pad and run the wire to the back of the boat where the action is.

Joystick setup for 3D WindPlot

The Joystick can be a great improvement over the mouse when trying to control the 3D camera position as it handles camera rotation, distance and tilt with just the stick. It also can provide a number of programmable buttons that can be programmed to make any mark, control tracking, change ranges, turn cursor on/off and more.

Assuming you have the joystick/game pad installed in Windows, get your P-Sea WindPlot 3D running in 3D mode. Select the *Options* menu and click on *Joystick Setup*. The window has setup for 3-axis rotations, 2 slider controls, 4 point of views and 8 buttons. Your joystick will not have all of these controls, if your not sure just push a button or move a slider and see what value changes on the setup window.

First Time Joystick Activation and Programming

You must activate the joystick by putting an X in the *Joystick ON* check box before you can start programming. Figure out what controls you have on your joystick or game pad by playing with it's controls while watching the Joystick setup window. To program any one of the controls, simply click the drop-down box button located next to the control and select what you want it do to. You can go back into this setup and change any one of them at any time while 3D is running. The computer will remember these settings the next time you bring up the 3D screen. Be sure not to give two controls the same function and we suggest you label the buttons with the function they provide. There is a default setup button that will start with a recommended setup, just click the *Sidewinder Defaults* button. The Sidewinder Defaults is good for may types of controllers.

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Note that the 3D Joystick settings supercedes the Joystick Setup for 2D WindPlot outlined above.

Joystick Sensitivity

The Axis and slider controls may work too fast or too slow for your 3D program. You can change the sensitivity of these controls by clicking the *Joystick Sensitivity* button. Click this button and enter a percent of control, that is 100 is the fastest and 1 would be the slowest response for the controls.

No Mouse Control

If you use a joystick to pan and tilt the 3D camera view then it is recommended to deactivate the mouse on the 3D window. To do this you just put an *X* in the *Mouse OFF* check box of the Joystick setup window. When deactivated the mouse will only work on the 2D plotter screen.

Marks ' Right Mouse Button

This is a checked item in the menu list. When it is checked (°), it assigns the right mouse button to making instant marks. The color and shape of the mark will be the same as the last mark on the *Mark Search & Edit* list. This is usually the same as the last mark you made.

Note: See section on *Keyboard Assignments* for programmable short cuts to making marks using any key on the computer.

To change the status of the instant mark, click on *Marks* in the plotter menu bar and click on *Right Mouse Button*, which is the eighth item in the menu that pops up. Answer the dialog box that appears asking if you want the right mouse button activated by clicking on the appropriate button in the box. When you want to change the shape and color you will have to use *Add Mark* from the mark menu to make the first mark, then use the right mouse button to make the rest of the marks.

Marks ' Select New Waypoint

P-Sea WindPlot allows only one waypoint to be used at one time unless you are using routes (see section *Options ' Routes/Waypoints*). It can be created in many ways or from any mark that is presently in the RAM memory. The default is assigned from the NAV. (GPS) device. Each time the plotter program is started it looks at the NAV. device for a waypoint. If the NAV. device is putting out WPL sentence, the program will then show any waypoint you have put into it. You can override this default NAV. waypoint and assign any mark to be a waypoint by using the function *Select New Waypoint*. When you click on this item, you are taken to the *Mark Search & Edit* list. From there you use the text search or the scroll bars to locate the mark you want to assign as a waypoint. When you have found the mark, you click on the number in the first column of the list, the plotter will ask to confirm your choice and then it ask if you want the 3D XTE box on also. Then you are brought back to the plotter screen. It assigns the mark as a waypoint with a line from the vessel to the mark and the range and bearing appearing in the lower right of the plotter screen. You can reassign the NAV. device as the waypoint by choosing this category again and click on the *No* button when it asks if you want to assign a mark as a waypoint.

To select a mark as a waypoint

- 1 Click on *Marks* in the plotter menu bar to call the mark menu.
- 2 Click on *Select New Waypoint*.

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- 3 The *Mark Search & Edit* list will appear and a dialog box will ask if you want to select a mark. If you click on *No* then the NAV. device is used for the waypoint. If you click on *Yes*, then you use the menu to find the mark.
- 4 When you have the mark appearing on the list, click on the mark number in the first column. The plotter will redraw with the new waypoint showing.

There are several other ways to set a waypoint, try placing the cursor over a mark on the plotter screen and then click on the marks name as it appears in the lower center. Or,... if you would rather not make a mark at all, place the cursor were you want the waypoint and press **Shift-W** or click the “*Go To*” in the “*Cursor Info*” box.

All of the waypoints setup methods and functions can be set from the *Options* ' *Routes/Waypoints* window described later in this manual. If you are using the NAV. device as a waypoint you can save this waypoint as a new mark in the plotter by pressing **Ctrl-W**. This is an easy way to down load information into the plotter from a Loran or GPS.

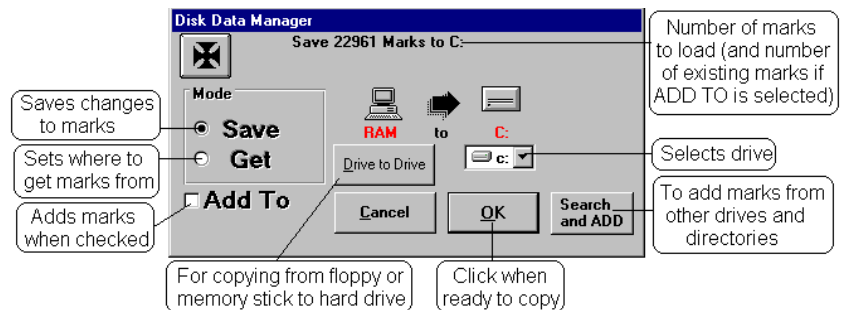
Marks ' Save

Marks are kept in a memory that will vanish when the program ends. They must be saved to a permanent memory like a hard drive or memory stick. With today's permanent memory they have are usually large enough you never have to worry about running out of space.

To save marks to default hard drive:

(Default drive is the drive WindPlot loads marks from when first started.)

- 1 Click *Marks* in the WindPlot menu then click on *Save*.
- 2 A dialog box will appear indicating the number of marks that will be saved and where the marks will be saved to.
- 3 All you have to do is click on *OK* and the marks will be saved. (one step, press **F9**)



To save marks to another drive (memory stick or hard drive):

- 1 Click *Marks* in the WindPlot menu then click on *Save*.
- 2 A dialog box will appear indicating the number of marks that will be saved and where the marks will be saved to.
- 3 Click the down arrow next to where it indicates the current drive and select a new drive.
- 4 Click on *Ok* to complete the save (to use a memory stick, place in before starting WindPlot).

Changing default load/save drive: See *Data* ' *Get* menu item

Marks ' Undo Save

This will partially undo a mistake of saving a file to a wrong disk when the file you saved was much smaller than the file that was on the disk. This function, *Undo Save* will retrieve the marks that were

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lost. For example: say you had 10,500 marks on your hard drive and you wanted to look at your buddy's marks. You put his disk in containing only 400 marks, and load them in. As you are viewing the marks you accidentally hit the save button. You try to reload your 10,500 marks and find only your buddy's 400. Now, if you call the *Undo Save* then the marks after the 400 will be retrieved but the first 400 will still be lost.

To call this function click on *Marks* in the plotter menu bar and the mark menu will appear. Click on *Undo Save* and a dialog box will appear with a report of how many marks this will bring back. Click on *Yes* to retrieve your marks. You must do another save in order to keep the changes.

Marks ' Search & Add New Marks

Click this menu item when you are trying to add marks from any drive (like a CD or thumb drive) to **Search & ADD** marks from any drive/or directory (Use this step if using a CD to get data).

- 1) Click on "Marks" then "Add New Marks"
- 2) You are given the choice to search automatically (click *YES*) or manually (click *NO*).
- 3) Click *Yes* in most cases for the automatic method and then click the *Search Now* button to begin.
- 4) In a few minutes a list of all mark files found will appear. The file names are "MARKPNTS.DAT".
- 5) Look for the mark file date, location that you want and click on it so it is highlighted.
- 6) Click on *OPEN* to add the marks,

If you selected *No* to manually load them you will need to steer the windows explorer window to where the "MARKPNTS.DAT" file that you want to add is located and click on *Open* to add the marks.

Marks ' Search & Edit

The screenshot shows the 'Search Text' dialog box with the following annotations:


- To search for a mark, enter part of the description to look for here** (points to the SEARCH TEXT input field)
- Click here to change the type of mark to look for** (points to the INCLUDE checkboxes)
- Click this button for a new mark** (points to the New Mark button)
- Sets a new waypoint** (points to the WP button)
- Double click here to jump to the mark** (points to the Num column in the table)
- Click on any one of these columns to change it** (points to the Latitude, Longitude, Range & Brng., Symbol, Show, R&B, Print, Color, and TD columns)
- Changes LL to TD's** (points to the TD column in the table)

The dialog box contains the following table:

Num	Latitude	Longitude	Range & Brng.	Symbol	Show	R&B	Print	Color	TD	Description
1	28°56.851'N	94°29.928'W	1324nm 108°	Wreck	On	Off	Off	Lt Cyan	*	11063.1 25795
2	28°51.951'N	94°41.954'W	1317nm 108°	Top Fish	On	Off	Off	Lt Cyan	*	11065.8 25608.8
3	28°53.406'N	94°41.497'W	1317nm 108°	Top Fish	On	Off	Off	Lt Cyan	*	11065.8 25608.8

Click on **Search & Edit**, or press **Shift+F1**, to call the *Search Text* dialog box that contains a list of marks you have saved.

Mark Search & edit, Long Menu

The marks can be listed in either TD's or Lat./Long. Simply click the change button  located in the upper right of the list. The headings of the columns will change accordingly.

The *SEARCH TEXT* dialog box serves as a mark locator from which you can easily locate a mark or groups of marks from a pool of thousands. Each letter typed in this box launches a mark description search routine as specified by the *INCLUDE* and *SEARCH METHOD* settings. The marks will appear on the list as the computer finds the match.

Click on *Land Marks* in this dialog box, you can change whether or not land marks are included in this list. If there is an X in the box next to the words *Land Marks*, they will be included, otherwise the land marks will not be included in the list. (Land marks are cities, buoys, points etc.)

The *SEARCH METHOD* box allows you to choose where the search starts from in the mark description. For example; say you enter "**berry**" in the text box. If the *Search Anywhere* method is selected then all marks that have berry (or **Berry** because this is not case sensitive) in any part of the description will appear. But if *Search from left to right* then only the marks that have **berry** at the very beginning of the description will appear on the list.

You can look through the marks in this list by clicking on the buttons in the vertical scroll bar. Each time the button is clicked the marks scroll 15 marks.

Note: Pressing the **Page Up** key will cause the marks to scroll up 15 at a time. Press the **Page Down** key will cause the marks to scroll down 15 at a time. Pressing the **Home** key will take you to the top of the list. Pressing the **End** key will take you to the end of the list.

Mark Shortcut Buttons & Check boxes

Four buttons are located at bottom of the marks list as shown below.



These are just extensions of the most commonly used items in the SAVE menu of the *Mark Search & Edit* window.

The first button, *Update TD'S*, will go through all marks and put an X in the TD column if it thinks it sees the TD listed in the marks description. It does this by scanning the first 5 characters of the marks description. If the value in the first 5 characters is greater than 999 then it sees it as a TD and places an X in the TD column and removes the X if it doesn't.

The next button, *Clear duplicates*, will look for duplicate marks and erased marks then clear and save them.

The third button, *Auto Save*, will allow the computer to check for any changes in marks every so often.

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How often is up to you, just enter in the minutes or click on **Cancel** to turn it off.

The last button, **Password protect**, click this button to enter in a secret password to lock or unlock your data. With a secret password set, no one can save any tracks or marks to a memory stick or backup disks thus protecting your vital information. Be sure to use some word you will remember because you will need it to save any of your data to disks or to unlock the password protect. The button changes to say **Unlock Drives** when the password protect is activated.

To set a password:

- 1) Click the **Password Protect** button. (If it says **Unlock Drives** then you need to unlock it)
- 2) A red box will appear, enter in your password. Enter your password. (You will see only "*" stars when you enter it.)
- 3) Click the **OK** button and a message box will say *Enter Password in again to verify please.*
- 4) Enter in the same password again and click on **OK** again.

If you didn't enter the same word twice then you have to start over at step one otherwise you are all set with password protection. Be sure to write down the word and put it in your wallet.

To unlock your password protection:

- 1) In the *Mark Search and Edit* list, click on the **Unlock Drives** button located in the lower-middle of the window.
- 2) Once again, the red password protect box appears. Enter in your password. (You will see only "*" stars when you enter it.)
- 3) Click on **OK** and a message box will appear telling you the drives are now unlocked if you entered the correct password.

A check box labeled, **Plot only listed marks**, will also appear below the buttons. When this box is checked, all marks are turned off except the ones that meet the search criteria you have entered. The check box is cleared each time you start the program. It also disappears when the search button described below clears out the search criteria.

A check box labeled, **Show Totals**, will display the total marks found in the search just below these buttons.

A check box labeled, **No TD offsets** located to the right of the **Show Totals** check box. When checked (°), WindPlot will not apply any TD offsets to anything. This check box may not be visible unless you drag the right side of the list to make it bigger.

Mark Search Buttons

If you have **Display Totals** activated in the under the mark list **Extended Search** menu, you will have access to some other options. With **Display Totals** activated and as soon as you type in any search criteria, you will see some new buttons and check boxes appear at the bottom of the mark list. They will perform different functions on the marks in the list that match the search criteria you type in leaving the unlisted marks alone. They will disappear as soon as search is cleared. The following describes each button or check box in detail.



Mark Search & edit, Long Menus

Going from right to left, the first button, **Clear Search** will reset the search, as it is when you first call up the list. The search buttons will disappear and ALL marks will show on the list.

The second, **Change** will allow you to change all listed by the current search. Click it and it will give you the total marks it will change and ask if you want to change them all. Click on *Yes* and a dialog box will appear with the current description of the mark. You can either change the description or click on *OK* to keep current or change. Clicking *Cancel* does nothing at this point. Next, the dialog box to change the color and symbol appears. Change the color and/or symbol and click on *OK* to continue on to the next mark. Clicking on *Cancel* here aborts the mark changing process. Otherwise just keep repeating this procedure for the rest of the marks you have listed.

The third button, **Delete** allows you to erase all of the marks listed or not listed. Click this button and a dialog box will appear asking if you want X amount of the marks listed deleted. Clicking *Yes* will delete all marks that match the search. Click *No* and it will ask if you want to delete X amount of marks that are NOT LISTED. Click on *Yes* here to remove all but the listed marks. Click on *Cancel*, and the delete operation is aborted.

The fourth button, **Copy** allows you to copy the marks listed to any disk or file. When you click this button it will ask if you want to copy X number of marks to a memory device. If you are going to copy to a memory stick be sure to put it in before starting WindPlot. Click on *Yes* to copy marks listed or click on *No* to copy marks that are not listed by the search criteria. Then another dialog box will appear with a list of available drives “CDH” letting you change the drive, directory or file name for where you want the marks to go. You must enter one of the drive letters (a flash drive will not show on the list unless you put it in before starting WindPlot, open Windows *Computer* if you are not sure of the correct drive letter). You can change the drive or name if you like but be careful when changing the name. First, WindPlot will only recognize the MARKPNTS.DAT file and will not load any file by any other name. Second there can be no more than 8 letters in front of the period and they must be only numbers or letters, NO PUNCTUATION!

The fifth button, **Move to front**, will put searched marks to the front of the mark list. Click this button and you are told how many matching marks will be moved to the front of the list if you click *Yes*. If you click on *No*, it will tell you how many NON-matching marks will be moved to the front of the list. This action is the same then as *Move to Back* described below.


The last button, **Move to back**, will move all marks listed to the end of the mark file. Click this button and you are told how many marks that match the search criteria that will be moved to the back of the list if you click *Yes*. If you click on *No*, it will tell you how many NON-matching marks will be moved to the back of the list. This action is the same then as *Move to Front* described above.

Please note that only the marks that match the current search will be affected whether it is color, description, range, symbol or any combination of search items.

HOW TO: The following paragraphs describe how to use many functions in this menu.

Use the plotter menu bar and click on *Marks* ' *Search & Edit* call this menu.

To add a mark to the list,

- 1 Click on *Marks* from the plotter menu bar and click on the last item, *Search and Edit*. The mark search and edit list will appear.
- 2 If you desired to enter your marks (or hangs) in TD's then click the change button  in the upper-right. You will see the 2nd and 3rd columns change to TD1 and TD2. So long as your GRI is setup the way you want it then you're ready to enter in TD's.
- 3 Click on the *New Mark* button in the upper right of the screen. You are automatically taken to the end of the list and a new mark is generated. The program will prompt you for all entries starting with the bottom left of the menu list.
- 4 Enter in the Latitude (DDMM.MMM do not enter in a degree symbol) and press **Enter** or press either N or S depending on which hemisphere it is. Then do the same for the Longitude.
- 5 Next select the color and shape or just press **Enter** to keep the defaults.
- 6 Then you can put in a description or just press **Enter** for none.
- 7 You can now either make another new mark by clicking *Yes* or click *No* to quit.

To add a mark by Range and Bearing,


- 1 Click on *Marks* on the plotter menu bar.
- 2 Click the last item, *Search and Edit* (the marks *Search and Edit list* will appear.)
- 3 Click then *New Mark* button on the upper right and press enter 4 times then click on *No* to add and set a new mark or select any other mark from the *Mark Search and Edit List*.
- 4 Click in the mark's Range and Bearing box (fourth box from left).
- 5 A dialogue box will appear asking you if you want to erase the mark. To enter a range and bearing, click the *Cancel* button.
- 6 Enter the range in nautical miles(n), add a space and enter the bearing(b) then press enter (nnn.n bbb).

The range and bearing must be separated by only one space. The program will calculate the Latitude and Longitude from the range and bearing you enter.

Moving marks within the list

If you need to move a mark to a different place in the *Mark Search & Edit list*, just right-click on the mark number to move. Then, type in the number of the mark just prior to where you want it moved to.

To generate lines using Lat/Long (or TD's) from the Mark Menu (this is not TD overlays),

- 1 Call the mark menu by clicking on *Marks* in the plotter menu bar then click on *Search and Edit* at the bottom of the list. The change button  switches between Lat/Long & TD's.
- 2 Click on *New Mark* button in the upper-right.
- 3 Enter in the Latitude for the start of the line and press **Enter**. (Or click on TD's or L/L button in the upper-right to switch to entering in TD's instead of Lat/long and enter in the first TD reading).
- 4 Enter in the Longitude in the next box followed by **Enter**.
- 5 When the *Select new Mark* dialog box appears, make sure the *Connect to last reading* check box is unchecked for the first line reading.
- 6 When the dialog box appears for color and shape, just press **Enter**.
- 7 When the dialog box appears for the description, just press **Enter**.

Mark Search & edit, Long Menus

- 8 Click on *Yes* when asked to do another mark.
- 9 Enter in the next readings position but this time check the *Connect to last reading* check box and select the color and line thickness with you want.
- 10 Repeat this process until all readings for that line are done. Then either exit the *Mark Search and Edit* menu or do another reading and uncheck the *Connect to last reading* check box for the first reading and check it for the rest.

To find a specific mark in this list,

- 1 Set the *INCLUDE* and *SEARCH METHOD* to your specifications.
- 2 Use the keyboard to enter the keyword that will identify the mark you are looking for. Search restarts each time a letter is typed. Text is erased if no match is found.

To select groups of marks for deletion/change

You can use the mouse arrow to select a group of marks to change or delete the entire group.

- 1 Get the group of marks showing on the Mark Search and List (press **Shift-F1**), place the mouse arrow on the NUMBER of the first mark and drag it down the list to the last mark. The marks that will be changed will be highlighted.
- 2 Then press the **Delete** key on the computer keyboard to delete or press the **Enter** key to change something about all of the selected marks. Clicking on the *Show, R&B or Print* when they are grouped and you will be asked if you want to change all listed or just the one you clicked on.

To change the color of a mark using this list,

- 1 Find the mark you want to change and click on it in the column labeled *Color* to call the *Select New Mark* dialog box.
- 2 Click on your color choice in this dialog box. The color you have selected will be framed in a thin red line. You can also alter the symbol at this time if you choose.
- 3 Click on the *OK* button to confirm your selection.

To change the description of a mark using this list,

- 1 Find the mark you want to change and use the horizontal scroll bar as necessary to bring the last column containing the mark's description into view.
- 2 Click on the description of the mark you want to change to call the *Mark Description* box.
- 3 Click in the box(s) this dialog box provides and make modifications.
- 4 Click on the *OK* button when finished.

To change a mark's display status (visible or hidden) using this list,

Click on the mark in the column that lists the aspect of the mark displays status that you want to change. That is, click on *Show* to turn on/off the mark on the screen, click on *R&B flag* to turn on/off the range and bearing flag displayed next to the mark, or click on *Print* to turn on/off that portion of the description which follows a colon.

To change a mark's geographic Lat/Long position,

- 1 Find the mark you want to change.
- 2 Click on the Latitude and type the new Latitude. If the Latitude is not showing, click the button in the upper right with the red and yellow arrows to change from TD's to Lat/Long. The program will insert the degree symbol and the minute's symbol. Just type the numbers, the decimal point and the

Chapter 2, General Information

letter N or S (or the Enter key). Use the format DDMM.MMM where D is degrees and M is minutes.

- 3 Click on the Longitude and type in its new value.
- 4 Click on the *Exit Search* button.

To change a mark's geographic position using TD's

- 1 Find the mark you want to change.
- 2 Click on the TD1 column and type the first TD. If the TD column is not showing, click the button with the red and yellow arrows located in the upper-right to change from Lat/Long to TD's. Make sure that TD1 and TD2 is the correct slave and your GRI is set up properly. If you leave the program in AUTO TD GRID, it will be automatically for you.
- 3 Click on the second TD and type in its new value.
- 4 Click on the *Exit Search* button.
- 5 Save your marks or quit the program using *Exit* from the Data menu and the marks will be saved automatically.

Note: An "X" is placed in the TD column and the TD's you entered are added to the description. The "X" in the TD column tells WindPlot that this is a TD that will require calibration. Do not remove this "X" unless you are sure it is not a TD hang.

To change the mark's symbol using this list,

- 1 Find the mark you want to change.
- 2 Click on the symbol for the mark you want to change (in the Symbol column). This will call the *Select New Mark* dialog box.
- 3 Click on the symbol you want the mark to have. The symbol will be framed in a thin red line.
- 4 Click on the *OK* button in the dialog box.
- 5 Click on the *Exit Search* button in the upper right of your screen when finished with all changes.

To change the display status of a group of marks,

- 1 Group the marks you want to control by giving them a common name in the mark description followed by a colon. You may follow that description by another (i.e., "City:Tampa" or "City:Mesa").
- 2 Click on one of these marks in the *Show* column of this list to change the display status of the entire group. You will be asked if you want to change all or just the one. If you make a mistake, you must click on one of the columns next to this one then go back to this column.

To turn an individual mark name on/off using this list,

Click on the mark in the *Print* column to toggle on/off the printing of the part of the mark description that follows the colon (:). (If there is no colon in the description, nothing will be printed.) If the mark is grouped, you will be asked if you want to change all in the same group at the same time (like City: or Buoy: land marks are considered grouped marks).

Mark Search & edit, Long Menus

To turn the range and bearing (R&B) flag on/off using this list,

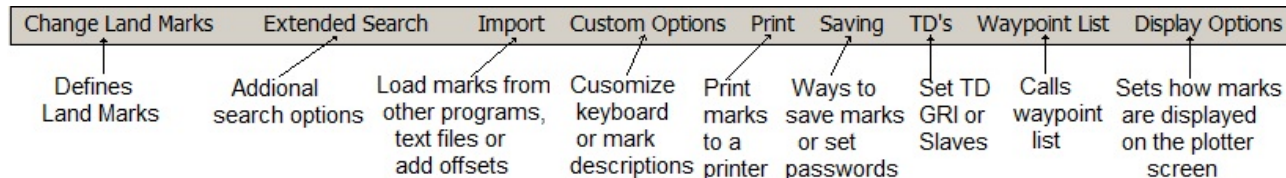
Click on the mark in the *R&B* column to toggle the R&B flag of that mark on/off.

To turn mark symbol on/off using this list,

Click on the mark in the *Show* column to toggle on/off the appearance of the mark symbol on the screen.

Mark Search & Edit Menu Bar

The *Mark Search & Edit* window has its own menu bar as shown below.

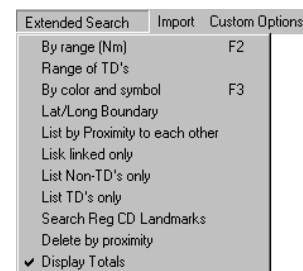
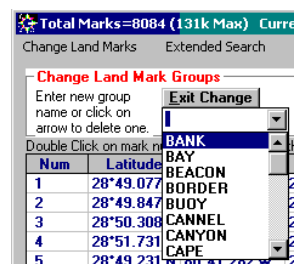


Marks ' Search & Edit ' Change Land Marks

Land marks are defined as any mark that came with the charts and was not made with the plotter. They include marks such as "Cities", "Buoys", "Rocks", "Points", "Capes" etc. in the marks name. This function will allow you to redefine any land marks by adding or deleting them from the normal list. All other marks are considered *Plot Marks*. One reason to classify a group of marks as land marks is to speed up the search for plot marks by eliminating them from the search. Also, when you use the *Clear All* in the main plotters mark menu, you are given a choice clear all but the land marks thus ending up with only the land marks in the mark search list.

These names like "Cities" and "Buoys" can be recognized in any mark by adding the name to the very beginning of the marks description and follow it with a colon to separate it from the rest of the mark's description. For example; you want to add a land mark and it is the city of Briton. After you have placed the mark where the city should be then call up the marks' description editor. Then you would first have to classify it as a "City" type land mark by putting "City:" in the beginning and then adding "Briton" to it forming the complete description that would look like "City:Briton." The computer then knows that it is a city type land mark by the name of "Briton."

To Change Land Marks: Assuming you have the *Mark Search & Edit* list showing, click on *Change Land Marks* in the menu bar and the text box will convert to the following picture. A new box named *Change Land Mark Groups* will have a down arrow button, an exit change button and a text box. Add a name to the list by typing it in the box and follow it with **Enter**. To delete a name from the list, find it in the lower right list, using the vertical scroll bar if necessary, and click on it. A dialog box will appear asking if you want to delete it. Click on *Yes* and it will be removed from the list. Click on the *Exit Change* button when you are finished.



Marks ' Search & Edit ' Extended Search

Extended Search allows you to extend the search parameters. It will generate a list of marks that contains only one color, or one type, or only marks that are

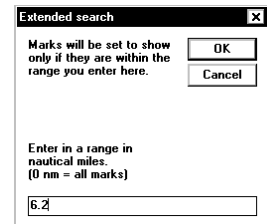
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located in a range that you specify from the ship. It can also list only those marks that are close to one another. The present extended search parameters are shown in the top of the search text box.

The third to last, *Search Reg CD Landmarks*, will only work when you have the VERSION 2.x or better BSB CD in the computer and set to run. It will give you thousands of land references to which you can jump to from. Click scroll bar or press **PgDn** to activate any new search when a parameter is changed.

Marks ' Search & Edit ' Extended Search ' By range

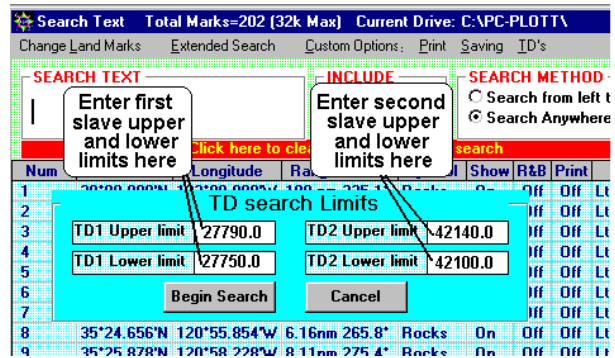
Clicking on *Extended Search* in the menu bar at the top of the *Mark Search and Edit* list will call a sub-menu. Click on *By range* in this sub-menu and a dialog box appears. Enter a range in nautical miles and press **Enter** or click on *OK*. A list will appear that contains only the marks within this range. This will remain in force until it is changed or the program is terminated.



Marks ' Search & Edit ' Extended Search ' Range of TD's

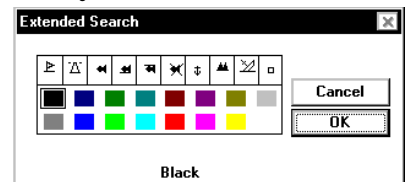
When you enter hangs in TD's, the TD #'s are added in the description. You can now search and list these hangs by limiting the range of the TD values.

- 1 Click on *Marks ' Mark Search & Edit* in the WindPlot menu bar.
- 2 Then click on *Extended Search ' Range of TD'S*.
- 3 This will bring up another box to enter in your upper and lower limits of TD's as shown above. Be sure to use the decimal point when entering TD's. After entering in the TD limits just click on *Begin Search* and all hangs in this range will appear. You can call this search again and click on *Cancel* button to show all marks again or to modify the range you had set.



Marks ' Search & Edit ' Extended Search ' By Color and Symbol

Clicking on *Extended Search* in the menu bar at the top of the *Mark Search and Edit* list will call a sub-menu. Click on *By color and symbol* in this sub-menu and a dialog box with mark symbols and colors will appear. Click on the color and/or symbol you want and click the *OK* button. The list will reprint showing only those marks with the selected properties. You can use the scroll bar, text search, or print this list. The program will lose these setting when you exit from the search menu.



NOTE: You can select just a mark or just a color. Click on color only and all symbols will still list. Click on a symbol only and all colors will still list

Marks ' Search & Edit ' Extended Search ' Lat/Long Boundary

Use this extended search in the event you want to list only marks from a certain area that you can define in Latitude and Longitude.

Mark Search & edit, Long Menus

To display a selected group of marks by a boundary, follow the menu path: *Marks ' Search & Edit ' Extended Search ' Lat/Long Boundary*. A dialog box will appear telling you to select two marks from the *Mark Search and Edit* list, one as the North-West corner and one as South-East corner of the boundaries and click on there mark numbers in the first column. Click on Ok and do as it says. The mark list will refresh with the bounded marks when the second marks is selected.

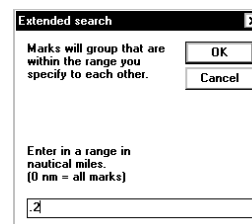
Marks ' S &E ' Extended ' **List marks by proximity**

The *Mark Search & Edit* menu can list marks according to how close they are to each other. Simply input a maximum distance and all marks will be grouped together that are within the maximum distance to each other. When you select delete by proximity, all marks but one will be deleted that come within the maximum distance to each other.

You have the option to have the program ask before deleting or just delete all. None of the marks are ever really fully erased. If you wish to recall the deleted marks back, you can simply quit WindPlot without saving marks or use the mark undelete feature in WindPlot. You will only loose the color information when marks are undeleted.

To list all marks by proximity to each other

- 1 Click on *Marks* in the plotter menu bar then click *Mark Search & Edit*.
- 2 Click on *Extended Search* in the mark list.
- 3 Select *List Marks by Proximity to each other*.
- 4 Enter in a maximum range in nautical miles. This can be as small as .001nm. Any smaller and the list by proximity is turned off.



Marks will be grouped together and displayed on the list that fall within this distance to each other allowing you to delete the ones you want. You can click on *Cancel* at any time to exit the search and do some editing. Go back to step one to start listing again. You will always have to restart at the top, just remember the page number you was on to return back to where you left off.

To delete marks by proximity to each other

- 1 Click on *Marks* in the plotter menu bar then click on *Mark Search & Edit*.
- 2 Click on *Extended Search* in the mark list.
- 3 Select *Delete Marks by Proximity to each other*.

Enter in a maximum range in nautical miles. This can be as small as .001nm. Any smaller and the list by proximity is turned off. Select whether you want automatic deletion or prompt before deleting. Remember, you can always restart the program without saving to recall deleted marks.

Marks ' Search & Edit ' Extended Search ' **List linked only**

Click this menu item to list only those marks that are linked to other marks. Then only those marks that are linked to other marks are displayed. It also adds the number of the mark that it is linked to in the description.

Marks ' Search & Edit ' Extended Search ' **List Non-TD's only**

Click this menu item to change the TD listing status from listing NON-TD's. When it is checked(°),

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only marks with the X in the TD column will be listed. Click on this category again to uncheck it or click the *Clear Search* button to go back to listing all marks.

Marks ' Search & Edit ' Extended Search ' **List TD's only**

Click this menu item to change the TD listing status from listing NON-TD's. When it is checked (°), only marks with the X in the TD column will be listed. Click on this category again to uncheck it.

Marks ' Search & Edit ' Extended Search ' **Search Region CD Landmarks**

BSB (Better Boating) has been producing the NOAA and NDI government chart on CD for some time now as version 1. As of June 1997, they introduced the new version 2.0 CD's. These CD's contained new picture format and other various new information.

One type is a list of land marks for each region. Click this category and a new page with a list of regions available listed as shown below. Click the region number of choice and the list loading process will start. Some of the CD's have as many as 64,000 landmarks so they may take a few minutes to load. Once loaded, you can use the text search to find a landmark of interest. Then, you are zoomed out to that point when you click on any one of the land marks listed.

Loading Landmarks

The landmark files are automatically copied every time you use the program to copy the BSB chart CD to the hard drive. All you need to do is set the drive box in the lower-right to the hard drive or place the BSB CD in the CD drive and change the drive box to the CD drive.

The screenshot shows a software window titled "REG3.GEO - total records: 21698". The main area contains a table with the following columns: Number, Land mark, Description, ST, Latitude, and Longitude. The table lists 22 items, including landmarks like "111 Wall Street Heli", "185 Monmouth", and "Abraham Lincoln High".

On the right side of the window, there is a control panel with the following elements:

- A list of region files: REG12.GEO, REG2.GEO, REG3.GEO (highlighted), REG4.GEO, REG6.GEO. A label "Current # of region showing" points to this list.
- Buttons: "Load Region" (labeled "Loads a new region"), "View Region" (labeled "View area covered by a region"), "Begin Search" (labeled "Start a search").
- A "Search Text" input field (labeled "Text to search for").
- A "Go To..." button.
- An "Exit" button.
- A drive selection dropdown menu (labeled "Change to another drive").
- Two checkboxes: "Plot landmarks" (labeled "Show region marks on plotter screen") and "Show Shortcut Icon On Screen".

Arrows from the text labels point to the corresponding elements in the screenshot.

When you do this the number of the region file should appear in the list at the top-right shown above. Simply click on the region number and the file will load. Only one file can be loaded at a time. If you

Mark Search & edit, Long Menu

want to manually copy the files to the hard drive they can be found in the INDEX directory of the BSB CD. Copy the files in this index to a folder on the hard drive with the same name INDEX.

Viewing a Region: To view a region just click the *View Region* button with a region loaded.

Jumping to a Landmark

Just click on the number of the landmark and you will be put there on the plotter screen.

Searching for a Landmark

Click the white area under *Search Text* and enter the name to look for then click *Begin Search*.

Displaying BSB landmarks on plotter screen

When t the *Plot Land Marks* check box in the lower-right of the Landmark window is checked (°), the landmarks will appear with the name on the plot screen.

A **shortcut icon** will appear on the plotter screen when the check box *Show Shortcut Icon on Screen* is checked (°). The icon appears just under the *Range* button when you touch the left side of the plotter screen. Click this button to jump to the landmark window.

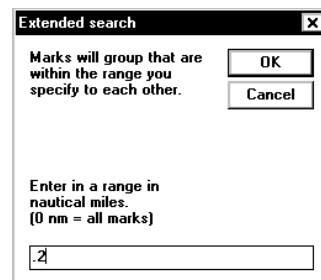
Marks ' Search & Edit ' Extended Search ' Delete by proximity

You can now go to the Mark Search & Edit menu and have them list according to how close they are to each other. Simply input a maximum distance and all marks will be grouped together that are within the maximum distance to each other. When you select delete by proximity, all marks but one will be deleted that come within the maximum distance to each other. You have the option to have the program ask before deleting or just delete all. None of the marks are ever really fully erased. If you wish to recall the deleted marks back, you can simply quit WindPlot without saving marks or use the mark undelete feature in WindPlot.

To list all marks by proximity to each other

- 1 Click on Extended Search in the mark list.
- 2 Select *List Marks by Proximity* to each other.
- 3 Enter in a maximum range in nautical miles. This can be as small as .001nm.

Any smaller than .001, the list by proximity is turned off.



Marks will be grouped together and displayed on the list that fall within this distance to each other allowing you to delete the ones you want. You can click on *Cancel* at any time to exit the search and do some editing. Go back to step one to start listing again. You will always have to restart at the top, just remember the page number you was on to return back to where you left off.

To delete marks by proximity to each other

- 1 Click on *Marks* in the plotter menu bar then click *Mark Search & Edit*.
- 2 Click on *Extended Search* in the mark list.
- 3 Select *Delete Marks by Proximity* to each other.
- 4 Enter in a maximum range in nautical miles. This can be as small as .001nm. Any smaller and the list by proximity is turned off. Select whether you want automatic deletion or prompt before

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deleting. Remember, you can always restart the program without saving to recall deleted marks.

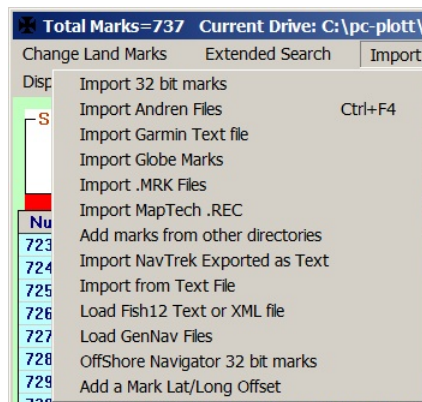
Marks ' Search & Edit ' Extended Search ' **Display Totals**

This option requires that the computer look through all marks every time you do any kind of mark search. Thus, it requires more time to search or to process any changes you make using this menu. It is however, the only way to knowing the total marks included in any search you do. Totals will display at the bottom of the mark list when this item is checked (°). This can also be turned off via a check box in the lower right of the mark list.

If you use this option, it is recommended that you test the speed difference of this option by turning it off and doing any kind of search. This will be especially true as you get more marks.

Marks ' Search & Edit ' **Import**

This sub-menu is used to import marks made from other programs or reside in a directory other than the WindPlot working directory. P-Sea Software does it's best to keep up with way outside sources of imports are performed. WARNING, the way data was saved from these outside sources can change over time with P-Sea Softwares knowledge so way we import may no longer work. It is strongly recommended to backup your marks before importing any marks from any other program as it may not work. P-Sea Software would like to know about this should it happen so we can be fixed for the next version of WindPlot when it becomes available.



If save your marks before doing any imports, check over your data after the import, if anything looks wrong then quit P-Sea WindPlot WITHOUT SAVING your marks when asked and the old marks will return back as before the import when you restart WindPlot again.

Marks ' Search & Edit ' Import ' **32(16) bit marks**

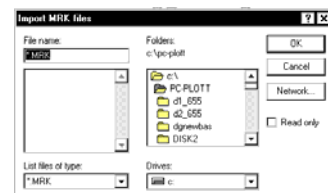
This menu will appear different depending on the type of marks your program is set to use. If set to the normal 16 bit marks (default) then this menu will import marks from another WindPlot program that were saved in 32 bit mode. If WindPlot is set to use 32 bit marks then this menu will import 16 bit mars from another WindPlot that is using 16 bit marks.

Marks ' Search & Edit ' Import ' **Load Andren Files**

If you have any hangs or marks entered in using the Andren Loran program you can import them using this menu item. Just click on *Load Andren Files* from the Extended Search menu and they will be added to the mark list. Be sure to save them to disk if you want a permanent record. **You will need to recalculate TD's after loading Andren files.** Click on *TD's* then *Recalculate Single TD*.

To add Andren marks to WindPlot,

- 1 Click on *Marks* from WindPlot's menu bar.
- 2 Click on *Mark Search & Edit*.
- 3 Click on *Import* in the *Mark Search & Edit* Menu bar.



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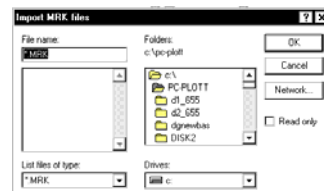
- 4 Click on *Import Andren Files*.
- 5 Click on one of the files that appear in the list and the marks will load into WindPlot.

Marks ' Search & Edit ' Import ' **Import Garmin Text file**

If you have a Garmin GPS and it allows you to save as a text file then you can use this menu item to convert the text file to WindPlot marks. Put the text file on a memory stick then install in WindPlot:

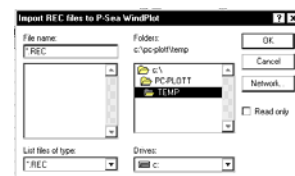
To add Garmin marks to WindPlot,

- 1 Click on *Marks* from WindPlot's menu bar.
- 2 Click on *Mark Search & Edit*.
- 3 Click on *Extended search* in the *Mark Search & Edit* Menu bar.
- 4 Click on *Import Garmin Text file*.
- 5 Navigate to the memory stick and click on one of the text file on the memory stick drive and the marks will load into WindPlot.



Marks ' Search & Edit ' Import ' **Import Globe Marks**

- 1 Click on this and search for the Globe marks that have the file extension **.mdb**. Click on the file name to import and click on *Open*.
- 2 A message box will appear asking if you want to add the Globe marks to you WindPlot marks. Just click on *Yes* to begin importing the marks.



Marks ' Search & Edit ' Import ' **Import .MRK Files** (MapTech?)

To add marks from .MRK file

- 1 If using memory stick, place in the computer before starting WindPlot.
- 2 Call the *Mark Search & Edit List* by clicking on *Marks ' Mark Search & Edit*.
- 3 Click on *Extended Search* and then on *Load .MRK files*.
Any legit file will quickly be added to the WindPlot mark list.

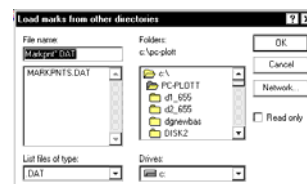
Marks ' Search & Edit ' Import ' **Load MapTech REC Files**

Use this feature if you have marks made using MapTech programs. Simply select this menu path then instruct the program where the files are. Then WindPlot will add all marks it finds to the ones already loaded in WindPlot. If These files names should all end with ".REC"

Marks ' Search & Edit ' Import ' **Load mark files from other directories**

Typically, marks are always loaded from directories assigned by the program. However, if a file gets misplaced this procedure will allow you to load any mark file from any directory or drive. In some older programs put the mark files in the root directory. **BE SURE TO HAVE SAVED YOUR PRESENT MARKS** to a backup folder or drive.

- 1 Click on *Marks* in the plotter menu bar then click on *Mark Search & Edit*.
- 2 Click on *Extended Search* in the mark list.
- 3 Select *Load Marks from other Directories*.



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- 4 Find the file MARKPNTS.DAT that contains the marks you want by selecting the drive and directory where it lies and double click the file. The program will then tell you how many marks will be loaded and how many are erased then proceed to load the marks, as you want. Be warned, the marks presently in RAM will be lost so be sure to have them backed up.
- 5 If you want to add these to you present marks then go to *Data ' Marks* and select *ADD TO* to get your other marks back off of the hard drive. Be sure to check your results with the *Mark Search & Edit* menu to be sure you have all of your old marks before saving.

Marks ' Search & Edit ' Import ' **Import NavTrek Export Text**

Select this menu path to add data to your WindPlot from a NavTrek program **EXPORT.TXT** data file. Then click on OK, change the data dialog box to the proper drive and directory until it is listed in the in the window. Click on the file and then click the *Open* button to import the files.

Marks ' Search & Edit ' Import ' **Import Text File** (with or without TD's)

To import TD's so they will convert and have the corrections added you must first scan the marks into a TEXT file that ends with the extension TXT using an OSCR. If you can't save it this way then use Microsoft WORD that is in Windows 95 accessories menu to convert it by pasting it to WORD then use the SAVE AS to save it as a text file (not DOS text).

The page you scan must have the following columns in order for it to work:

Mark# TD1 TD2 Latitude Longitude Description (Line Feed) (Carriage return)

To import a text file without TD's then use the following format to build your text file:

Mark# Lat.(DDMM.MM) Long. (DDDMM.MM) Description (LF) (CR)

Spacing is not critical and can be Tabs instead of spaces. Use DOS's TYPE command to see that the file is actually a text file if you know how. When saved as text properly, you can read the file by using the DOS TYPE command.

Once you have the text file you can load it into WindPlot by:

- 1 Calling up the *MARK SEARCH and EDIT* menu in WindPlot.
- 2 Then click on *EXTENDED SEARCH* in WindPlot menu bar.
Note: Before attempting to load the mark text file with TD's, you must make sure the program is setup properly to convert TD's to Lat/Long by manually converting one of the marks from the text file. First, if the marks are not listed in TD's in *the Mark Search and Edit* menu then click red and yellow arrow button in the upper right to have the marks list as TD's. Click the *NEW MARK* button also in the upper right and enter in a TD pair. If it does not convert then set up the proper GRI and slave then try again.
- 3 Then select *LOAD TEXT FILE* in the *Mark Search and Edit* menu. It will ask if it will have TD's too? Click on *Yes* if it does and *No* if it doesn't
- 4 Select the text file you created by setting the drive and directory where the file is located.

If you had TD's, and it is done the program automatically converts all TD pairs on the text file and adds them to you mark menu along with the TD's in the description. WindPlot will let you know how many conversions it was able to make.

Mark Search & edit, Long Menus

Note: Some may not convert if too far from GRI and will require manual recalculating.

Marks ' Search & Edit ' Import ' **Load Fish12 Text File or XML file**

If you use the C-Map Chart Planner program to load your Fish12 marks into it you can copy them to a text program like Word and save it as TEXT file. This file can be imported into WindPlot and it will add these marks into the program. To import the text file just click on “MARKS” then “SEARCH & EDIT”. Then in the mark list click on “IMPORT” menu and select “LOAD FISH 12 TEXT”. You will be asked if they are C-Map XML files so click on “No” then use the file dialog box to find the file you saved with Word and click on it then click on “OPEN”. It will as if you want to add these marks, just click on “YES”.

When you use C-Map Chart Planner to save the mark or track files to a file on any drive they are saved in XML format which WindPlot CAN import. In this case you would answer “Yes” when this section asks if it is a XML file and use the file dialog box to navigate were the file is and click on “OPEN”. If you have more than one file it will ask if you want to do all at once. Then you the program will attempt to convert the XML file, this may take a while depending on how many files you have to convert.

Marks ' Search & Edit ' Import ' **Load GenNav Files**

Select this menu item to import GenNav files. Simply select the file you want to convert and click on ok to the files imported.



Marks ' Search & Edit ' Import ' **Offshore Navigator 32 bit marks**

This will add marks from Maptech’s Offshore Navigator program. You must first save the marks in Offshore Navigator as TEXT files and save them to a memory stick.

To add Offshore Navigator marks to WindPlot,

- 1 Click on *Marks* from WindPlot’s menu bar.
- 2 Click on *Mark Search & Edit*.
- 3 Click on *Extended search* in the *Mark Search & Edit* Menu bar.
- 4 Click on *Offshore Navigator 32 bit marks*.
- 5 Navigate to the memory stick and click on one of the text file on the memory stick drive and the marks will load into WindPlot.



Marks ' Search & Edit ' Import ' **Mark Lat/Long Offset**

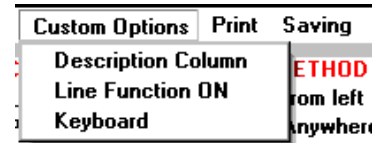
Careful using this feature as it will permanently change the location of marks. If you do plan to try this feature we strongly suggest using the BACKUP menu to backup your current marks and tracks.

When you click this menu you will get a *Lat/Long Offset* window. If you wish to add to the Latitude of all your marks then click on the left box and enter the offset in minutes, tenths and hundredths of a minutes. For example, you want to move the marks up by 1.32 minutes then enter 1.32 in the left box. Do the same for Longitude in the right box. When you have the correct values entered, then click on apply. A message box will appear that lets you know that if you find that you made an error in entering the offsets then you can cancel the offset by simply quitting the program without saving the marks. Click on *OK* and then it will ask if you want to apply this to tracks as well. However, if you apply it to tracks the offset will be permanent. We suggest that you move your marks only and when you find you have the correct offset value then quit the program without saving, then go back and apply the offsets to both marks and tracks.



Marks ' Search & Edit ' Custom Options

This menu contains three items. The first allows you to create custom description columns. The next turns the mark line function on or off. The last allows you to customize your keyboard to make any mark you want with any keystroke.

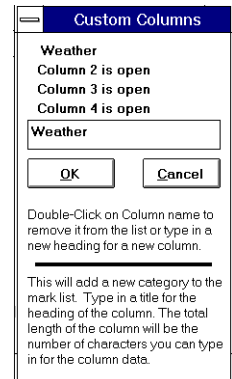


' Search & Edit ' Custom Options ' Description Columns

You have only one description as the program comes from the factory but you have the option of creating up to four of your own custom columns each with its own custom heading. It is good advice to set up these columns when you first get the program, as there are just 77 characters reserved for ALL descriptions. The number of characters in a custom column is equal to the number of characters in the title you give it and this same number of characters is removed from the end of the main description.

Here is what happens if you don't create them right away. For example, say you wanted to add your first custom column a year after you started using the program. You have accumulated many marks over the past year with long descriptions. You add a custom column called "TYPE OF DAY AND WEATHER." When a title is created it determines the number of characters for that column. So, since "TYPE OF DAY AND WEATHER" has 23 characters, all marks' descriptions will be truncated at 54 characters. (77 - 23 = 54.) Thus, the last part of some of your old descriptions will be lost.

To create a custom column, click on *Custom Columns*, in the *Mark Edit & Search* List and the *Custom Columns* editor dialog box will appear. To add a column, type in the title you want. If you need more characters in the column than the number of characters in the title, then add some space accordingly to the end and/or beginning of the title and press **Enter**. To delete a column just click on the title as it appears at the top of the box. Click on **OK** when finished. The new column will appear in front of the main description on the mark list.



Automatically add Temp/Depth to a mark's custom column

If you have a fathometer or a temperature gauge connected to the computer so the temp and/or depth is displayed in the upper right of the screen you can have the computer add them automatically to the description of a mark each time a new mark is made. It does require you to setup a custom column for each item (depth or temp).

Note: (Changing depth units) Default is in unit for depth is Fathoms but can be changed by clicking on the depth readout. Answer *NO* when it asks for Dead Reckon mode. Then, it will as two out of the three choices of depths, depending on what is presently reading for depth. Just click on *YES* when the kind of depth readout you want is asked. It will retain this setting as long as you shut down the program the proper way. You may change it again at any time by following the same procedure.

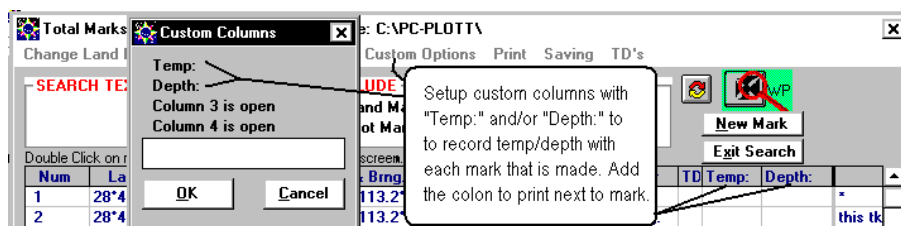
All that is required to have the temp and/or depth added to the marks description is to have a custom column set up with the proper heading. Make a custom column with the heading "Depth" to have depth automatically added. See next page.

Mark Search & edit, Long Menus

If you want it to print the depth next to the mark on the screen then make the heading “**Depth:**”, the addition of the colon makes it print on the plotter screen.

Make a custom column with the heading “**Temp**” for the temperature to be automatically added. Note the two spaces added after “**Temp**” these spaces must

be added to make the column wide enough. You can have the temperature printed on the screen by making the heading “**Temp:**”. Don't forget the space after the colon and do not put the colon in the Depth column if you want the temp to print.



Each time you make a new mark now the depth or temp will be added. If you plan to have temp or depth added in the future then you would either need an extra interconnect cable or a serial multiplexer.

You should also create the new columns NOW before you start making a lot of marks as you will lose some of the descriptions when the new columns are created.

Marks ' Search & Edit ' Custom Options ' Line Function

When this menu item is clicked so that it is checked (°), the *Line Function* will be turned on and off when not checked. *Line function* is NOT the same as mark linking. The *Line Function* adds a sentence to the marks description and the linking imbeds the line in the marks. Use *Line Function* if you want different line widths as linked marks the lines are all the same size.

... ' Custom Options ' Keyboard

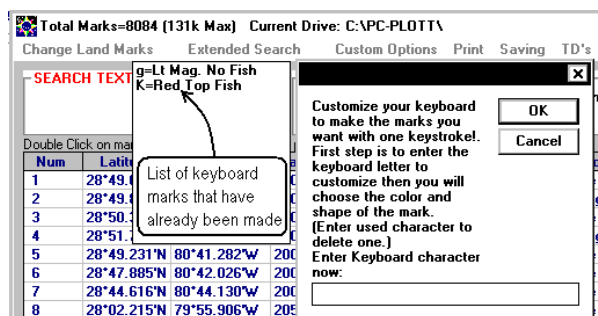
Any key A-Z can be programmed to make any mark in any color you want:

- 1 In WindPlot's menu bar click on *Marks ' Search & Edit*.
- 2 Then in the *Search & Edit* menu bar click on *Custom Options ' Keyboard*.
- 3 Then just enter the keystroke A-Z. A list will appear of the currently programmed keys.
- 4 Next, select the color and shape of the mark to be made.

Now when you are in normal plotting mode you can press the pre-programmed key you selected and the mark you selected will be made at the boats present position. If you program a key that is used for another function (like **H** is used to halt a track), the old function will be disabled and the key will now make a mark you selected instead.

To disable or change a pre-programmed key:

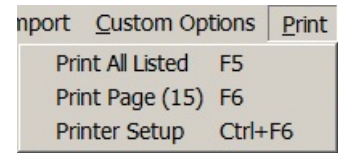
- 1 In WindPlot's menu bar click on *Marks ' Search & Edit*.
- 2 In the *Search & Edit* menu bar click on *Custom Options ' Keyboard*.
- 3 Enter the keystroke A-Z you want to change. A list will appear of the currently programmed keys.



- 4 To change the mark, just select another shape and color or click on *Cancel* now to remove it from the programmed key list.

Marks ' Search & Edit ' Print

With a printer attached you can get a hard copy of your marks with in the same format as they appear on the mark list. You can select to print all or just the current page. Only the marks listed will be printed in any case. If you set any of the search parameters, it will limit the number of marks displayed. This will also limit the printer to the same marks. There are three categories in this menu as shown to the right. The category not mentioned yet, *Printer Setup*, allows you to select the type of printer color, number of pages and so on if applicable. You cannot just connect any old printer and expect to start printing right away you must have a printer setup in order to print marks.



Marks ' Search & Edit ' Print ' Print All Listed

Prints all marks listed as set up by the search parameters.

Marks ' Search & Edit ' Print ' Print Page

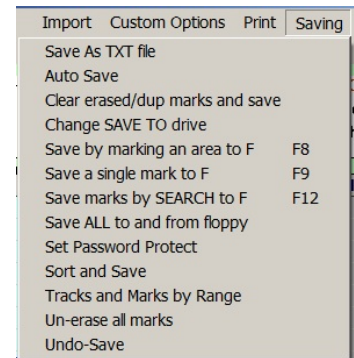
If you click on *Print Page* then all marks that currently appear on the list will be printed. You can use the search to find just the marks you want to print out and only they will print when *Print Page* is clicked.

Marks ' Search & Edit ' Print ' Printer Setup

(see your printer manual when setting up your printer)

Marks ' Search & Edit ' Saving

This menu gives you several options and saving methods. Some items will not appear in this menu if drives are locked.

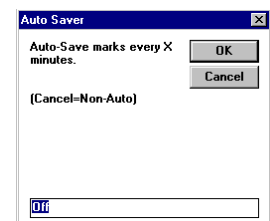


... ' Search & Edit ' Saving ' Save as TXT file

Click this menu to save your marks as a text file. It will come up with a dialog box where you simply type the name you want. You can just click ok and it will save it to the default file TEMP.TXT. You can also change the drive letter to the letter of the memory stick.

... ' Search & Edit ' Saving ' Auto Save

If you would like marks in RAM to be saved automatically to a hard drive every hour, half hour or whatever selects this menu item. Just enter the number of minutes that you want the computer to check. If, for example you entered 60, it will check once an hour to see if you made any new marks and save if there are any. Nothing happens if no new marks were made.



... ' Search & Edit ' Saving ' Clear erased/dup marks and save

Click this menu item to have the computer clear any erased or duplicate marks presently in RAM memory and save them to disk.

... ' Search & Edit ' Saving ' **Change SAVE TO drive**

Click this to change the default drive that the SAVE BY will use to save your mark data to. Just click this and select the desired drive letter.

Marks ' Search & Edit ' Saving ' **Save by marking an area to (drive letter)**

This will save a group of marks by setting a boundary with two marks. The first step is to define the geographic area containing the marks.

To save by marking an area:

- 1) Generated two marks if not already done, one in the northwest or upper-left of the area and another in the southeast or lower right of the area that will contain the marks you want to save.
- 2) Give these marks special descriptions such as bnd1 and bnd2 so that they can be identified.
- 3) Click on *Saving* ' *Save by marking an area* and then click on *OK*.
- 4) Use the mark search to find the first of the marks defining the area containing the marks, (bnd1 if you used our notation). Click on its first column (the mark number).
- 5) Click the *OK* button and repeat the process for the second mark.
- 6) Click on *Yes* to save to memory device. Note: If using a memory stick, be sure it is plugged in before starting WindPlot
- 7) The program will tell you how many marks you will save. Click *OK* to save them.

Marks ' Search & Edit ' Saving ' **Save as single mark to (drive letter)**

Click this category to save one mark at a time to another memory device like a memory stick. You can use the search to find any mark then just click on the mark number in the first column to save it. Click on either *Save a single mark to A:* or *Save a single mark to B:* depending the drive. A red label will appear just above the list and all you do now is search for the mark then click the number of the mark in the first column and it will be saved. Repeat the search and click for as many marks as you need and click on *Exit Search* button when you are finished. Marks will be added to any marks that already exist on the disk. It does not check for duplicate marks.

Marks ' Search & Edit ' Saving ' **Save marks by SEARCH to (drive letter)**

You can use the *Mark Search & Edit* list to copy marks that match the search parameters in the SEARCH TEXT, INCLUDE, SEARCH METHOD search boxes and *Extended Search* menu. All marks that match the parameters you set will be copied to the selected drive. It will ask you if you want to copy over any existing marks on the drive before proceeding and you can not stop the process one it starts.

To save a selected group of marks to another drive

- 1) Call the mark list by clicking on *Marks* in the menu bar then on the last item *Search & Edit*.
- 2) Setup your search parameters like search text, range color. You can use the scroll bar to examine what you have selected before you start to copy it.
- 3) Click on *Saving* and then select *Save Marks by Search*.
- 4) It will tell you how many marks were saved when done.

Marks ' Search & Edit ' Saving ' **Save ALL**

Simply calls the Data ' Marks file data manager menu for saving marks.

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Marks ' Search & Edit ' Saving ' **Set Password Protect**

Select this menu to activate password protection of your important mark and track data. When protected, you must enter a password in order to save your data to any other place than the normal saving using WindPlot the program.

To activate, select the above menu path, select and enter your password in twice. When locked, the *Set Password Protect* menu changes to the following path:

... ' Search & Edit ' Saving ' **Turn Off Password Protect** (only shows when protected)

Select this menu path and enter your password to fully unlock your mark and track data. You must call or E-mail P-Sea Software company with your SR# in order to get a unlock code. The code is only good for one day so you must enter the code the same day.

Marks ' Search & Edit ' Saving ' **Sort and Save**

P-Sea WindPlot has removed the option to always sort, instead now you have to manually call the procedure when you feel it is appropriate. This is because as mark files keep getting bigger, sorting takes longer and you do not want to wait 10 minutes for sorting to finish when your fishing. Just do it later when you have the time.

To begin sorting

1) Click on *Saving*, then *Sort and Save* from the *Mark Search and Edit* menu.

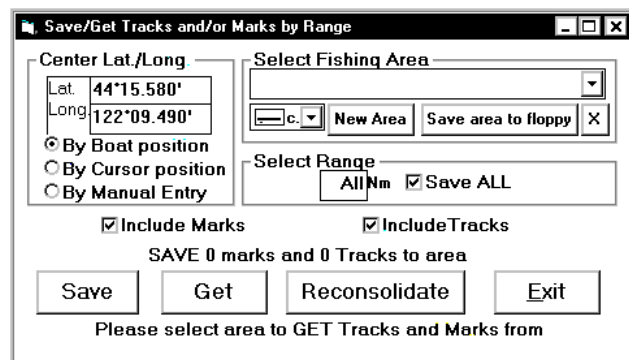
Marks ' Search & Edit ' Saving ' **Tracks and Marks by Range**

Imagine selecting a group of tracks and marks by the name of the area they are in. This new function does exactly that, it allows you to break down your current marks and tracks into smaller more manageable sizes. You simply enter the central area Lat./Long and a range in nautical miles from the area you want to encompass then give it a name. The marks and tracks within the area you set up are saved to that directory. Then when you want to fish a certain area you just select the area you want by name.

It can be called from either the *Mark Search & Edit* or *Track Search and Edit* menus. In the mark menu, you will find it under the menu item *SAVING* and *Tracks Search and Edit* under "RANGE". Look for the menu item *Tracks and Marks by Range*.

Setting up a new area:

1) Decide how you want to enter the central spot for you fishing area. You have three choices. You can move the cursor or boat to the spot. There is a check box for either of these methods. If you have the Lat./Long. then you can just manually enter the central position.



Window Menu, Long Menu Features

- 2) Click *Tracks* then *Search & Edit* then from the list that appears select *Range* then *Save Tracks and Marks by Range* from its menu.
- 3) If you selected the manual entry, click in the Lat. box and enter your Latitude in Degrees and Minutes. Otherwise click on one of the other two options, by boat or cursor position and it will be filled in for you.
- 4) You can choose to limit the process to just tracks or just marks by deselecting one or the other appropriate check boxes locate near the center.
- 5) Click the *Save All* check box so it is unchecked and enter the range you want to save. The program will save only the marks and tracks that fit within the range you specify. A report of how many marks and tracks will be save will appear above the buttons.
- 6) Click the *New Area* button and enter in an eight-letter description for the name of the area then press ENTER.
The program will ask if you have setup the Range and Lat./Long. boxes yet. If you haven't, do them now and go back to this.
- 7) Click on *Yes* and then click on *Save* to complete the process.

Retrieving marks and tracks for a previously set up area

- 1) Click *Tracks* then *Search & Edit* then in the *Track List* select *Range* then *Save Tracks and Marks by Range*.
- 2) In the *Select Fishing Area* box click the black down-arrow and click on the fishing area of interest.
- 3) Click on the *Get* button, click on *OK* then click on *Yes* or *No* depending if you want to add these marks to the existing marks you have loaded.

Please note that marks and tracks are not automatically updated as you go. YOU MUST SAVE/UPDATE YOUR FISHING AREA before you change to a new fishing area.

Deleting area file/folders

- 1) Click *Tracks* then *Search & Edit* then in the *Track List* select *Range* then *Save Tracks and Marks by Range*.
- 2) In the *Select Fishing Area* box click the black down-arrow and click on the fishing area to delete then click the X button.

Marks ' Search & Edit ' Saving ' Un-erase all marks

Select this menu Item to recall all marks that have been erased and not replaced.

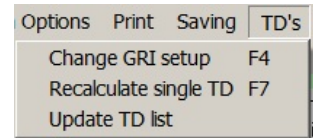
Marks ' Search & Edit ' Saving ' Undo-save

If it believe you have lost some marks it is possible you accidentally save your marks to the wrong file. This menu item *Undo-Save*, can bring back some if not all of the lost marks. When selected, you will be told how many marks if any will be recovered if you proceed. You can cancel and nothing will change or click on OK to proceed and recover your marks. Even then, if you do not like what you see then just shut down the program without saving to bring back your original marks.

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Marks ' Search & Edit ' TD's

This menu item will allow you to change the current TD setup for GRI and slaves. It will further let you recalculate a mark made with the TD converter. The only reason you would ever want to do this would be if you had used someone else's TD's or had added in a TD offset to the TD's when the conversion was made. It is best to do TD calculations without adding a TD offset and calibrate it using the TD grid that way the original TD L/L remains altered.



Marks ' Search & Edit ' TD's ' Change GRI Setup

GRI and slave setup is described in detail later in this chapter. Simply click this category then click on *Set GRI* button. Select the proper GRI and *Slaves* and click the *Exit* button.

Marks ' Search & Edit ' TD's ' Recalculate single TD

When you setup the GRI and slaves, you will notice you can enter a TD offset in micro seconds. If you have been using TD offsets while making marks with TD's then use this menu to recalculate the TD's. Especially if you are going to use the Automatic TD grid. TD's micro second offset must be zeroed if you want the TD grid to be accurate. The grid will change the Lat/Long position to calibrate from one area to the next and a TD offset will insert an unwanted error. In such cases you do not need to re-enter each TD. Just go to the GRI setup and set the offsets to zero and press enter on each zero entry. Then go to the mark list and follow the method mentioned below to recalculate the TD's.

To recalculate any TD, simply select this function and then click on the number in the first column for the mark to recalculate. This recalculates the TD's according to the current GRI, slaves and TD offsets in then GRI setup. It does not change the TD or Lat/Long offsets. This will have no effect on the mark if the TD pair does not show in the description column.

Update TD list

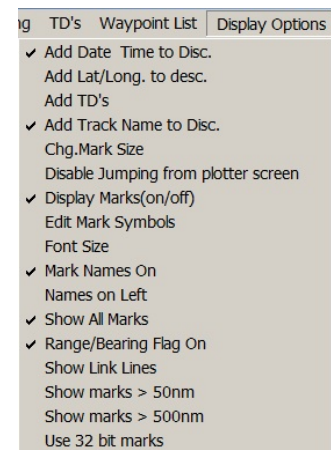
Click this and the program will search all mark descriptions for TD numbers and mark the TD column for all TD numbers it finds in the mark description.

Marks ' Search & Edit ' Waypoint List

This calls the Waypoint list so you can setup a waypoint from a pre-assigned waypoint list instead of using a mark for a waypoint.

Marks ' Search & Edit ' Display Options

Clicking on this menu item, will call a sub-menu (shown on the right) that controls how marks are displayed.



Marks ' Search & Edit ' Display Options ' **Add Date & Time to Desc.**

Clicking on *Add Date & Time*, the first item in the *Marks* sub-menu, will toggle on or off adding the date and time to the description of each mark as it is made. When it is on this menu will be checked.

Marks ' Search & Edit ' Display Options ' **Add Lat/Long To Desc.**

Clicking on *Add Lat/Long to Desc.* will to add the position of the mark to the mark's description in Lat/Long. when checked.

Marks ' Search & Edit ' Display Options ' **Add TD's**

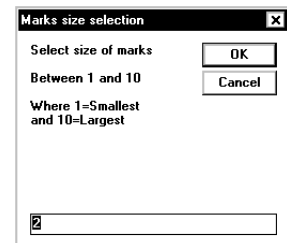
If TD's are available, clicking on *Add TD's* will toggle on or off the addition of TD's to the descriptions of marks when any new marks are made. A check mark will appear to the left of the item in the menu when this feature is turned on. (Note: When TD's are not available the second item in this sub-menu, *Add TD's*, is dimmed and cannot be turned on.)

Marks ' Search & Edit ' Display Options ' **Add Track Name**

Clicking on *Add Track Name*, the fourth item in the *Marks* sub-menu, will toggle on or off adding the current track name to the description of each mark as it is made. A will appear to the left of the item in the menu when this feature is turned on. (Note: The current track must be named before the name can be added to the descriptions of marks. Adding the track name to the marks' descriptions enables you to turn on or off these marks by turning on or off the track. Each mark made with a track name in its description will have an ascending number assigned to it.)

Marks ' Search & Edit ' Display Options ' **Chg. Mark Size**

Clicking on *Mark Size*, the fifth item in the *Marks* sub-menu, bring up the dialog box shown to the right here. Select the size you wish by entering a number from 1 to 10, 1 being the smallest. (Note: All marks are changed to the size selected.)



Marks ' Search & Edit ' Display Options ' **Disable Jumping from plotter screen**

When this is unchecked, you can double-click on a mark on the plotter screen to have it jump to the Mark Search & Edit list with the mark you clicked shown on the top of the list. Uncheck this menu item to disable the jumping to mark list function.

Marks ' Search & Edit ' Display Options ' **Mark On**

Clicking on *Mark On*, the seventh item in the *Marks* sub-menu, will toggle on or off all marks. If you have changed or added marks but not saved them to disk, you will be prompted to save them when you turn marks off using this function. You will also be asked if you want to clear them from memory. You will reclaim memory if you turn them off. A will appear to the left of the item in the menu when this feature is turned on.

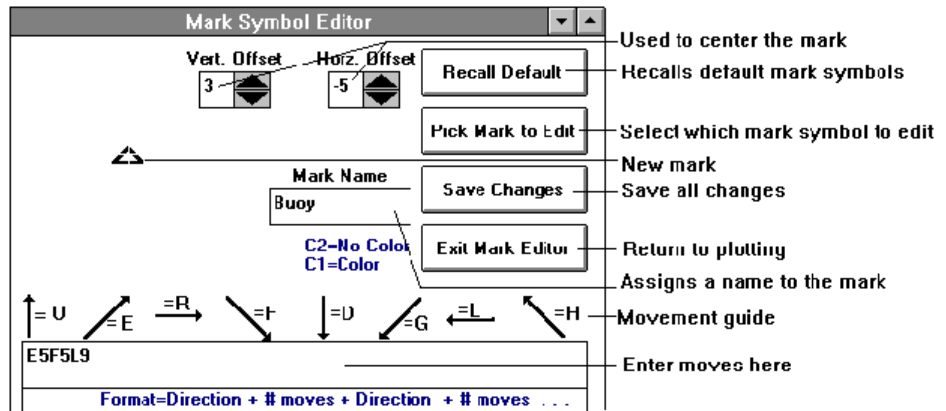
Marks ' Search & Edit ' Display Options ' **Edit Mark Symbols**

Customize your own mark symbols with this mark symbol editor. The marks will remain the shape you create until you change them again. Old marks will also take on the new shape.

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To call the mark editor click on *Window* in the plotter menu bar then click *Marks* then *Edit Mark Symbols* and the mark editor will appear as shown here.

To edit a mark symbol, first pick a mark by clicking on the *Pick Mark to Edit* button. Click on one of the 10 mark symbols that appear and click on *OK*. The mark will now be on the editors cross hair and the text box at the bottom will have the symbol drawing code.



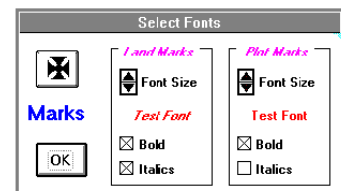
Use the **Delete** key to erase the mark. Look at the movement guide located just above the code box and figure the first move you need to make. Put the letter in followed by the number of moves to make. The number of moves must be in the range of 1-9, no more or no less. If you need to move further than 9, use another move code and number. The mark picture at the center of the cross hair will update for each move. Experimenting with this, you will quickly find out how easy it is to create a mark.

After you have the symbol, you must center it on the cross hair. Click on the up and down arrows in the **Vert. Offset** and **Horz. Offset** buttons located just above the mark symbol to move the mark up, down, right and left until the mark is centered.

Then click in the *Mark Name* text box and enter in a name for the new mark. When everything is the way you want it, click on the *Save Changes* button. Click on the *Exit Mark Editor* when you have finished creating or editing marks.

Marks ' Search & Edit ' Display Options ' **Fonts Size**

Clicking on *Fonts*, the ninth item in the *Marks* sub-menu, will call the *Select Fonts* dialog box. This box allows you to control the size and font of the descriptions of marks that shows on the screen. This dialog box has two boxes in it; one to change the land marks and the other to change the plot marks. Click on the font size buttons to change the size



of the type and use the boxes below to select either the bold or the italic font. The print under the size buttons shows how the print will look on the screen. (Note: These changes are saved in the plotter INI file so that the fonts will be the same the next time the plotter program is run.)

Marks ' Search & Edit ' Display Options ' **Mark Names On**

Clicking on *Mark Names On*, the tenth item in the *Marks* sub-menu, will toggle on or off land marks such as cities, points, etc. and any portion of the plot marks' descriptions that are set to be displayed on the screen. A ° will appear to the left of the item in the menu when this feature is turned on.

Marks ' Search & Edit ' Display Options ' **Names on Left**

The program comes set up to print the names of cities, etc., to the right of the land mark. This is appropriate for the West coast, as the names are not printed in the Ocean. However, on the East coast you may want to print the names on the left. Clicking on *Names on Left*, the ninth item in the *Marks* sub-menu, will toggle on or off printing the names to the left of marks. A (check) will appear to the left of the item in the menu when this feature is turned on.

Marks ' Search & Edit ' Display Options ' **Show All**

Hidden marks will all be forced on when this category is checked () regardless of their show status.

Marks ' Search & Edit ' Display Options ' **Mark RB On**

Clicking on *Mark RB On*, the thirteenth item in the *Marks* sub-menu, will toggle on or off the range and bearing flags that have been assigned to marks. A will appear to the left of the item in the menu when this feature is turned on. (Note: A flag showing the range and bearing from the boat to the mark can be placed on any mark. A flag must be assigned to a mark before they can be turned on using this function. See *Marks ' Edit From Screen ' Rng/Brng.*)

Marks ' Search & Edit ' Display Options ' **Show Link lines**

Any mark can be linked to another mark by a dotted line referred to as a link line. Once the links are established, they can be toggled on or off using this function. Clicking on *Show Link lines*, the next to last item in the *Marks* sub-menu, will toggle link lines on or off. A check mark will appear to the left of the item in the menu when link lines are turned on.

Marks ' Search & Edit ' Display Options ' **Show Marks > 50nm**

Displays marks when plotter range is greater than 50 nautical miles when checked, otherwise show marks just as dots.

Marks ' Search & Edit ' Display Options ' **Show Marks > 500nm**

Displays marks when plotter range is greater than 500 nautical miles when checked, otherwise show marks just as dots.

Marks ' Search & Edit ' Display Options ' **Use 32 bit Marks**

This should only be checked () if you are going to use more than 64000 *Linked Marks*. The older program was limited to this amount.

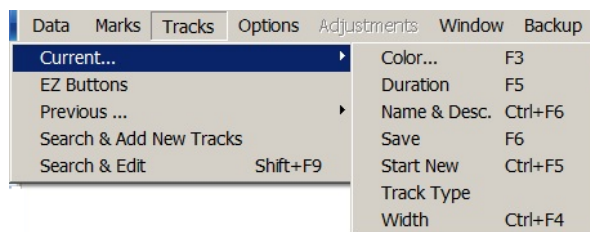
Click this menu and it will convert your current marks to the new 32 bit marks where you link as many marks as you want. **Warning**, once you go to 32 bit you will no longer be able to share or get marks from older versions of WindPlot. Use the new *Boundary Builder* in the *Mark* menu to make linked marks.

Marks ' Search & Edit ' Display Options ' **Sort Marks**

This menu has been removed in P-Sea WindPlot. It use to automatically sort marks if it was checked. It was removed for several reasons, sorting can cause data loss and it was also getting slow with the increase in the number of marks. Now you have to manually sort marks if you wish them sorted. See the *Mark Search & Edit* window through the **Mark Menu**. There is a button located on that menu to do your sorting now. Check your data, then save it if ok otherwise you can shut down without saving and your marks will be restored when you restart WindPlot.

Tracks Menu

Click on **Tracks** in the plotter long menu bar and the Tracks menu will appear.



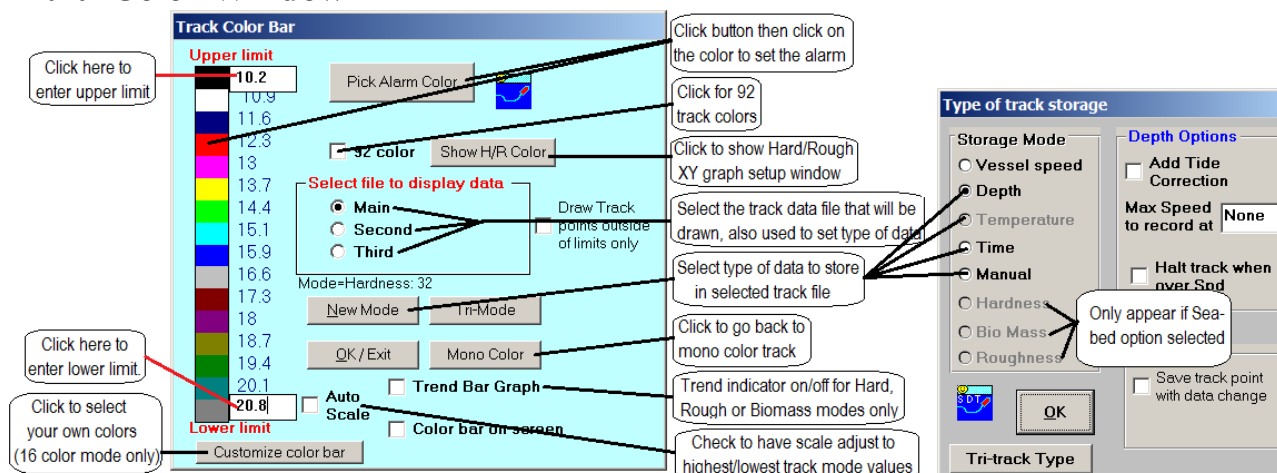
Tracks ' Current...

If you click on *Current*, the first of the three items in this menu, a sub-menu appears. This sub-menu allows you to set several features of a track, save the current track or to start a new one.

Tracks ' Current... ' Color...

Clicking on *Color*, the first item in this sub-menu, and one of two windows for changing track color will appear; Mono or Multi-color window menus. Buttons are provided within each menu that allows you to switch from one color mode to the other.

Multi-Color Window



Tracks can be set to change color manually or according to vessel speed, time, water temperature, or depth. The latter two require a fathometer or temperature gauge to be attached to the plotter. There is also an **option** for three additional modes when connected to a P-Sea FishFinder or the American Pioneer FishFinder or just hardness with the JRC model JFV200/250/700 fish finder. When you purchase this option, it will give you the following three new data modes; Biomass, Bottom Hardness and Roughness (just hardness with the JRC fish finder). When in the Multi-Color mode, the *Multiple Colors* dialog box shown below will appear.

First you should decide if you want a Tri-Mode/Color track. In Tri-Mode, the track will change color for THREE types of data. This is good in the event of the American Pioneer option. Just click the *Outside*, *Center* or *Middle* track then click the *New Mode* button to set up the type of information you want displayed. The current mode is displayed just above the *New Mode* button for the current selected track. Click and set the upper and lower limits for all modes except *Manual* and *Time* modes where you

Chapter 2, General Information

click to select the track color that will be displayed. If you do not like the extra thick tracks that Tri-Mode offers then click the “Single Mode” button to go back to single thickness of tracks. You can still store 3 types of data at once but only show one at a time.

Manual and Time Modes:

When *Manual or Time* modes are selected, the color of the track will only change when you want it to. With the Manual mode, you can have a single track have a variety of colors. Whereas if you selected *Single Colors*, the entire track would be a single color. Time comes from the GPS if a GPS is connected otherwise it comes from the computer.

Speed, Temp. or Depth Multiple color modes (and JRC/American Pioneer modes):

These selections require you to enter the upper and lower limits of the range of values in the *Upper limit* and *Lower limit* boxes. The computer will then calculate the intervening values and display them for each color in the color bar as seen above. Without a depth sounder or a temperature gauge attached, you can only display the ship's speed as it comes from the NAV. Device

Setting the current track to multiple colors also switches all of the previous tracks to be displayed in multiple colors. Changing the multiple color limits on the current track also changes the previous recorded tracks to the same limits. You can switch back and fourth from solid to multiple colors whenever you want without changing the track by calling either of the *Multiple Colors* dialog box or the *Single Color* dialog box described below and doing nothing but clicking on the *OK* button.

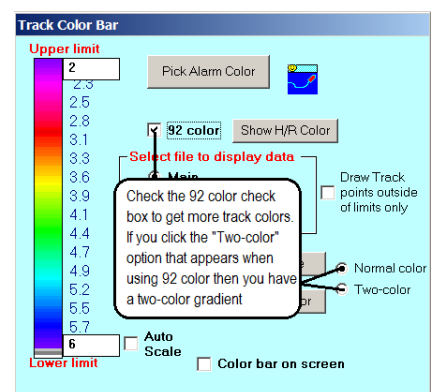
Note: (Changing depth units) Default is in unit for depth is Fathoms but can be changed by clicking on the depth readout. Answer *NO* when it asks for Dead Reckon mode. Then, it will as two out of the three choices of depths, depending on what is presently reading for depth. Just click on *YES* when the kind of depth readout you want is asked. It will retain this setting as long as you shut down the program the proper way. You may change it again at any time by following the same procedure.

The Track Color Alarm:

When ever you set a track for multiple colors you can also set an alarm to go off when any one of the colors become the current track color. To set the color for the alarm, from the multiple tack color box, click on any one of the colors in the color bar. The alarm is not available in the manual multicolor mode. When you click on the color for the alarm, a box will appear in this dialogue box in the color you selected and the *Pick alarm color* alarm button will change to *Turn alarm off*. Click this button to either turn the alarm off or to select another color that is different.

Increased Track Color Resolution

The total track colors are 15 by default but can be increased to 92 by checking the 92 color check box. This option should be selected once and left there because the tracks you make while in 92 colors will all show up the same color when you switch back to 15 colors.

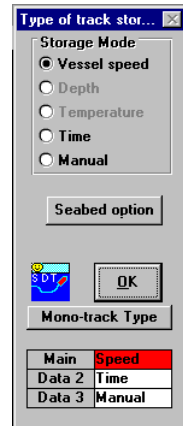


Window Menu, Long Menu Features

A new option for a *Two-color* gradient option will appear along with the *Normal color* option. The two color gradient is easier to see when a lot of multi-color are in the same area.

JRC/American Pioneer Seabed Class Option

This option lists for \$300 and is not included with the upgrade or normal program purchase. It allows you to interface an American Pioneer or the JRC model JFV-200/250/700 fish-finders to display and log the bottom characteristic outputs. It also allows you to gather seabed data from the P-Sea FishFinder in the track files too. There are three outputs; biomass, bottom hardness and roughness that the A.P. unit has shown to the right here in the last three data types (JRC only has hardness). The track line can be adjusted to change color to any one or all of these three outputs as well as a trend indicator bar for all three along the left side of the plotter screen. Entering a start code does activation of this option and it only has to be entered once. The code is burned into your security key. You know you have data coming in if the program allows you to select one of these function.

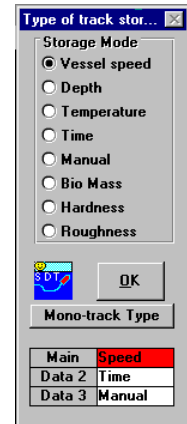


To activate the Bottom Characteristics option:

- 1 Purchase the start code for the Seabed Option from your local dealer.
- 2 Click on *Tracks* in the WindPlot menu bar.
- 3 Select *Current... ' Color ' Multiple Colors*.
- 4 Click the *New Mode* button.
- 5 Click the *Seabed Option* button and enter in the start code you purchased.
- 6 Then check the *Average Hardness* box if your hardness values jump around a lot. Check the *Track point must be within a cursor width to show* if your points are spread far apart and check the *Save track point with data change* if you want to save every change in hardness that happens (this can eat up a lot of track points causing the program to generate a lot of track files).

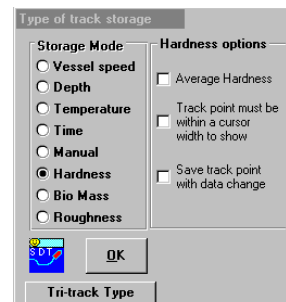
To change bottom characteristics tracking modes:

- 1 Click on *Tracks* in the WindPlot menu bar.
- 2 Select *Current... ' Color ' > Multiple Colors*.
- 3 Click the *New Mode* button.
- 4 Click on one of the features on the list.
- 5 Click the *OK* button.
- 6 Change the color bar limits as per manual by clicking the upper and lower limits label values and enter in new ones. At first, this may take some experimenting.
- 7 Click the *OK* button when satisfied with limit settings.



Hardness options

When you select hardness, a panel will slide out to the right with three check boxes. The top check box adds some averaging when checked (hardness values jump around a lot). The middle check box changes how close the cursor has to be to a track point in order to pick up the hardness value. The bottom check box causes a track point to be generated as soon as there is any change in hardness. If track interval passes anyway, then a track point is still saved.



Trend Indicator

A check box is provided on the Track Color Bar window for use with bottom characteristics. When checked three vertical bars will appear along the left side of the normal plotter screen. These bars represent the current trend of the bottom hardness (H), roughness (R) and Biomass (B). If the value is increasing the bars will grow and shrink when they are decreasing.

Turning the trend indicator on/off:

- 1 Click on *Tracks* in the WindPlot menu bar.
- 2 Select *Current... ' Color' Multiple Colors*.
- 3 Set the mode to one of the bottom modes as described above.
- 4 Click the bar graph check box that appears in the multi-color track box.
The trend indicator bar graph will appear when the box is checked (°).

Changing the color order of the color bar:

- 1 Click on *Tracks* in the WindPlot menu bar.
- 2 Select *Current... ' Color' Multiple Colors*.
- 3 Click the *Customize Color Bar* button.
- 4 Click on one of the 16 colors you want to change.
- 5 Select a new color from the color dialog box and click on *Ok*.
- 6 Repeat 4 and 5 until the color bar is the way you want it.
- 7 Click the *Apply Colors* button to finish.

A new button will appear if you have purchased the Bottom Characteristics option titled *SHOW H/R COLOR*. Click this to display a XY graph of hardness to roughness (JRC users need not click this as they only have hardness). A dot represents the current levels, set you max and min. values and click to set colors and bottom types. Track will change color accordingly.

A dot represents the current value of Roughness as compared to Hardness which can be used to determine the type of bottom such as mud, sand, rock and so on. This graph gives a quick view of the relation of the hardness to roughness. With experience, you will be able to tell what kind of bottom your currently going over just by where the dot is at. A hard bottom with little roughness may be clay bottom where a real rough bottom with some hardness will most likely be rocky and a combo of both are most likely shell mounds.

The top screenshot shows the 'Track Color Bar' window. It features a vertical color bar on the left with 'Upper limit' at 20 and 'Lower limit' at 0. On the right, there are buttons for 'Pick Alarm Color' and 'Show H/R Color'. A checked box for '92 color' is present. Below, there are radio buttons for 'Main', 'Second' (selected), and 'Third'. A 'Mode=Hardness: 0' label is shown above 'New Mode' and 'Tri-Mode' buttons. At the bottom, there are 'OK' and 'Mono Color' buttons, and checkboxes for 'Trend Bar Graph' and 'Colorbar on screen'. A 'Customize color bar' button is at the very bottom.

The bottom screenshot shows the 'H/R COLOR' graph. It is a grid where the vertical axis is 'HARDNESS' (0 to 20) and the horizontal axis is 'ROUGHNESS' (0 to 20). The grid cells are colored based on bottom characteristics: R=Rock (red), M=Mud (green), C=Clay (yellow), S=Sand (orange), L=Shell (cyan), G=Gravel (magenta), H=Hard (blue), and F=Soft (purple). A legend on the right lists these classes. A dot indicates the current value. A 'Current color: ?=Unknown' label is at the top right. A 'Click to change limits of hardness & roughness' label points to the grid. A 'Click to turn XY graph off' label points to the 'OFF' button.

Annotations for the top screenshot:

- Check the 92 color box and click the SHOW H/R Color button

Annotations for the bottom screenshot:

- Click on color bar to change just color
- Click any one of these class's to set the color and class then click on a square to set it's value
- Current value of hardness and roughness
- Clears all colors
- Click to save color setup
- Click to recall saved color setup
- Click to turn XY graph off
- Click to exit setup

Changing Colors of Bottom Class Box

There are 9 different boxes that represent bottom class types like rock sand and so on. You can change from the default colors at any time by the following method.

- 1) Click on one of the 9 different bottom class squares located on the right, the top square should change to match the color and bottom type.
- 2) Click anywhere on the color bar to change the current color the click again to set the new color.

Changing Bottom Class Descriptions

The descriptions of any of the 9 different bottom class boxes can also be changed by the following method

- 1) Click on one of the 9 different bottom classes and start typing. The first letter you put in will be the one placed in the graph
- 2) Click the "Save" button to keep your changes.

Changing Roughness and Hardness upper and lower level limits

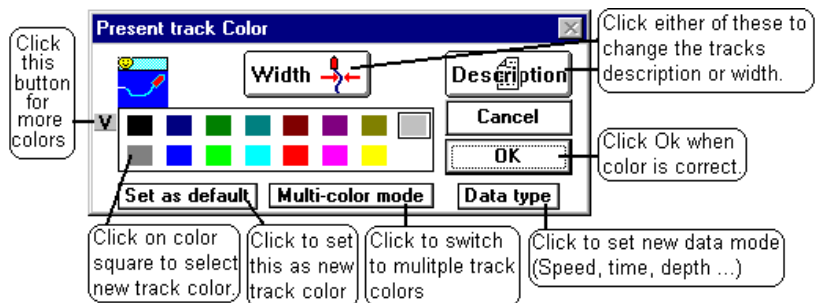
You will need to adjust the values for the upper and lower limits of this graph to match the output of your bottom discrimination fish finder. You can see the maximum harness value located on the top-left side of the graph, the minimums for both located along the bottom-left and the maximum roughness located on the lower-right. Click on any one of these to change there values. But to do this you should monitor the actual values of them over a period of time and for all of the different bottom types you can go over. When you have a good idea what the maximum and minimum values will be (approximately) then simply click on the values on the graph and enter the new ones. A Rough/Hard limit box will appear for you to enter the value then click on ok. You can change any of these at any time, just be sure to click the SAVE button when you do.

Other Tricks to the Bottom Graph.

Right-click a square to pick up a color from any square. Hold down the left mouse button over the squares to create a color path for several squares.

Tracks ' Current... ' Color (Single Color mode)

When Single Color is chosen, the track stays the same color for the duration of the track. Note: even though the computer is displaying a solid color the track will still continue to record the depth, temp., time, speed or whatever has been set up by the multiple color section (Data type).



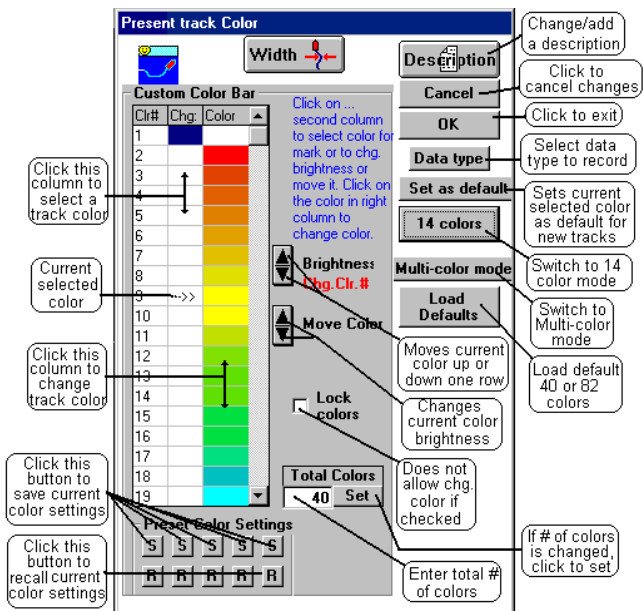
You can change the track color at any time but the entire track will change to the color selected.

More than 14 track colors

You can select more colors if your in the 14 track color window above by clicking the left-most button with the down arrow (v). You will get the new window shown to the right here. If you decide to use more than 14 colors then you should give a lot of thought on how you want it set up. Changing the track colors later will result in past tracks without the correct colors.

Default color bar setup

It recommended to select the default 40 or 82 colors by clicking the *Load Defaults* buttons. Then select either *Yes* for 40 colors or click *No* for 82 colors. Click the *Lock Colors* so that you can't accidentally change the colors by mistake.



Custom color bar setup

If you decide to create your own custom color bar then enter the total colors you want in the *Total Colors* box and click the *Set* button. Then click on each row in the *Color* column and pick a color from the windows color palette. You will have to perform this operation for every color in the color bar.

Brightness and Move Color buttons

Use the *Brightness* and *Move Color* buttons to aid in setting up your custom colors. The *Brightness* control changes the intensity of the color but not the hue. The *Move Color* buttons move the current selected color up or down one row so that you can rearrange the order of the colors in the color bar.

Save and recall buttons

There are 5 groups of *R* and *S* buttons located at the bottom of this window that are used to store 5 different color bar setups. It is recommended to click at least one *S* button even if your not going to setup multiple color bars in case you loose or someone changes your current setup. Just click the *R* button to recall the original setup.

To select a new track color (either window), click on *Tracks* in the plotter menu bar to call the track menu. Next click on *Current* and then on *Color*. If the multi-color window appears, click on *Mono Color* button. Then click the color you want the track to be and then click on the *OK* button. The plotter screen will return and the current track will adjust to the new color.

To set the default color of new tracks, click the *Set as default* after selecting the track color. Once you have clicked this button you can click on *Cancel* if you wish so you present track color does not change.

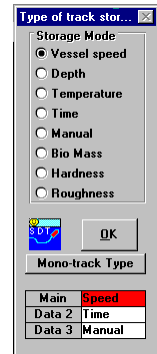
Selecting multi-data in single color mode

You can store 3 types of data while in the mono color mode. You must instruct the program to do this.

Window Menu, Long Menu Features

To select Tri-data mode:

- 1 First you must be in mono-color mode. If you get the multi-color box, click the *Mono Color* button.
- 2 Now select the data type window by clicking *Tracks* ' *Current* ' *Track Type* to get the *Track Data Type* window.
- 3 If you see a *Tri-Data Type* button at the bottom of the new track type window. Click this button to select the Tri-Type mode. The new window that appears will have a new list box at the bottom of the window for; Main, Data 2 and Data 3 types.

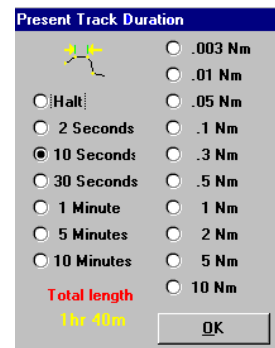


To select data types in Tri-mode

- 1 Call the track data type window (menu path: *Tracks* ' *Current* ' *Track Type*)
- 2 Click on one of the three data boxes in the bottom of the window that you want to change.
- 3 The data type currently selected will have a black dot in it on the top part of the window. To select the new data type simply click on it.

Tracks ' Current... ' Duration

Think of a track as a series of breadcrumbs that have been thrown behind the boat at timed intervals. The computer joins the breadcrumbs with a line thus forming a visible track that looks much like a snail's trail. The distance between the breadcrumbs is known as the DURATION. The duration of the track is important since you have only so many track points (default is 600) per track. When the points are use up a new track must be started. If you space out the bread crumbs too far apart, the turns in the track look jagged. Space them too close and you run out of points too quickly.



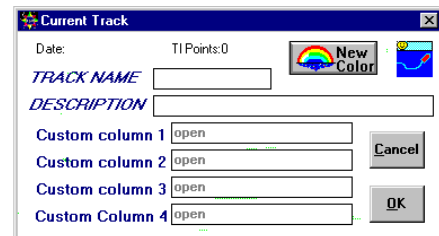
To change the duration, click on *Duration*, the second item in the current track sub-menu, and the *Present Track Duration* dialog box appears. This dialog box allows you to adjust the length of the track by adjusting how often a track point will be recorded.

Track points can be recorded at specified time intervals or at specified distance intervals. For example, clicking on the third button in the left-hand column of buttons will result in the vessel's position being recorded every 10 seconds.

Clicking on the fourth button in the right column of buttons will result in the vessel's position being recorded every one-tenth of a nautical mile. The total length of the track is reported in the lower left of this dialog box. After you have made your selection, click on the *OK* button to confirm it and the box will disappear.

Tracks ' Current... ' Name & Desc.

Each track can have an eleven-character name to identify it on the plotter screen. Each track can have up to 56 letters associated to it called the track description. This description can be divided into as many as five different categories. The first category is called the



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main description. The other four can be set up with special headings and are referred to as custom categories (columns).

Click on *Name & Desc.*, the third item in the sub-menu, and the *Current Track* dialog box appears. This dialog box provides a place for you to enter the name and description of the current track.

Type the name you want to assign to the current track. You can use up to eleven characters for the name. If you also want to enter a description, click in the box below and type in your description. Click on the *OK* to confirm your choice or on *Cancel* to delete what you have typed.

If you have set up custom columns for tracks, then one or more of the custom column rows (see above illustration) will have a title that you have assigned. This title could be the start or end of trip, type of tow, quantity, quality, etc. Then each time you call up the track after you have recorded it, you will see the same descriptions. See *Track Search & Edit* later in this section for details on setting up the Custom columns.

You are allowed up to 56 characters total for **ALL** descriptions of a single track. This means that if you set up four custom columns each with a width of 10 characters, you are left with only 16 characters for the main description.

If you click on the *New Color* button in the upper right of the box, you can change the color of the track. If you click the button to the right of the *New Color* button, then you are taken to the *Track Search & Edit* list.

Tracks ' Current... ' **Save**

Save the present track by clicking on *Tracks* in the plotter menu bar then on *Current*, then *Save*.

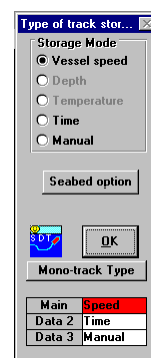
Tracks ' Current... ' **Start New**

This function allows you to keep the current track and start a new one or delete the current track and start another one without a lot of menu calls.

To start a new track, click on *Tracks* and then on *Current*, then on *Start New*, the fifth item in the sub-menu. The *Start new track* dialog box will appear and ask you if you want to save the present track. Click on the *Yes* button to save it or on the *No* button to delete the present track.

Tracks ' Current... ' **Track Type**

In order to form a track, the plotter saves the vessel's current position at intervals as specified by the duration. Each time the position is saved, the computer stores other data like vessel speed, the water temperature or the depth associated with that position. (Speed information is obtained automatically from the NAV device but water temperature or depth information must be supplied to the computer from a fathometer or temperature gauge and additional equipment and wires are required.) This menu item allows you to choose which of these values it will store.



Window Menu, Long Menu Features

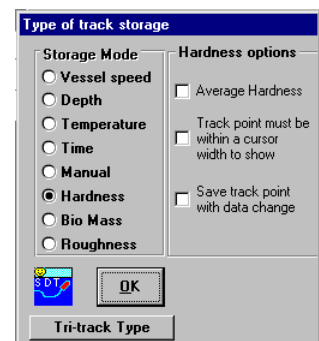
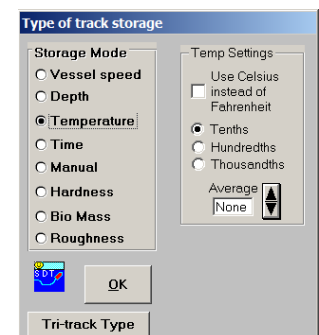
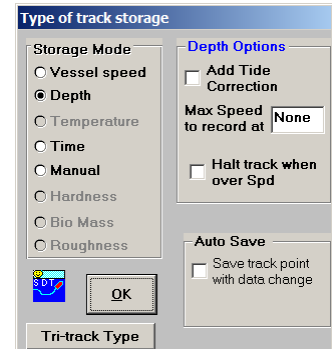
Note: Depth has several options when selected. Checking the *Add Tide Corrections* will use the current tide table setup to offset the depth to the tides. Usually you would only want to do this for recording 3D. Then, some vessels loose the bottom at higher speeds. If this is true then enter a maximum speed in the *Max. Speed to record at* and the depth will stop recording when the speed is faster than the speed you entered. Then just check the *Halt track when over Spd.* to have the stop recording speed at high speeds. Then another checkbox *Save track point when data changes* only saves a track point when the depth data has changed, again this is mostly for 3D data saving.

(Changing depth units) Default unit for depth is fathoms but can be changed by clicking on the depth readout located just under the speed and heading readout in the upper-right of the plotter screen (check the depth data coming to the plotter if you do not get this readout). Answer *NO* when it asks for Dead Reckon mode. Then, it will as two out of the three choices of depths, depending on what is presently reading for depth. Just click on *YES* when the kind of depth readout you want is asked. It will retain this setting as long as you shut down the program the proper way. You may change it again at any time by following the same procedure.

(Changing Temp. Units) When you select *Temperature* for a track type you will have another window slide open to the right as shown here. You can select Celsius and Fahrenheit and also select the resolution for the temp. as well to tenths, hundredths or thousandths. If your temperature is jumping around then you can increase the averaging between 1 and 99 or 0 for no averaging.

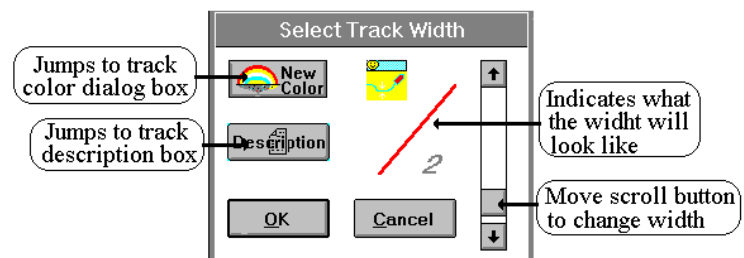
(Hardness settings) When you select *Hardness* for a track type as window will slide out on the right where you can add averaging, change the relation of the cursor when reading data and have the change in hardness be instantly recorded.

To select a different type of data for storage, click on *Tracks* in the plotter menu bar then click on *Current* to call the current track menu. Click on the sixth item *Track Type* to call the *Type of track storage* dialog box. Click on the dot next to the type of information you want stored and then click on the *OK* button.



Tracks ' Current... ' Width

Click on *Width*, the seventh item in the sub-menu called by clicking on *Tracks* and then on *Current*, to call the *Select Track Width* dialog box.



Each track can have its own width. When you select this function, you can set the present track width to any one of the 150 different widths. This width is stored when you save the current track and stays this width until you change it. **If you are using the off-color or on-color alarm you should set the width of the current track to one so that the current track does not interfere with the alarm.**

Use the scroll bar to adjust the width of the track. As you adjust the width, the dialog box will provide a visual example along with a related number. Click on the *OK* button to confirm your selection or you may click on the *New Color* button to change the track color or on the *Description* button to call the *Current Track* dialog box.

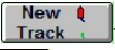


Tracks ' EZ Buttons

Click this menu item to change the regular track menu to a button type of menu. If you are using a touch screen you may want to switch to this type of menu as it is easier to hit with your finger than the menus.












This function provides a pictorial style menu for the track edit menu as shown below. You will notice that not all functions are available from this button menu.

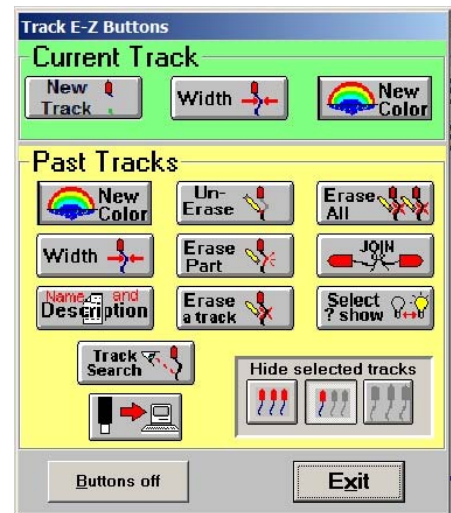
To summarize, click on:

Current track section (top set of buttons for ships track)

- % *New Track*  to start a new track and save old.
- % *Width*  Changes current track width.
- % *New Color*  to select current tracks color.

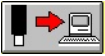
Past Tracks (tracks that were made at another time)

- % *New Color*  to change the color of a track showing on the screen.
- % *Un-erase*  to un-erase a track so long as it has not been written over.
- % *Erase All*  to erase all tracks.
- % *Width*  to change the width of any track showing on the plotter screen.
- % *Erase Part*  to erase part of any track that is visible on the screen.
- % *Join*  to join any two tracks showing on the plotter screen.
- % *Description*  to change the name or description of any track showing.
- % *Erase a track*  to erase any track that is on the plotter screen.
- % *Select ? show*  to select tracks to show or hide.
- % *Track Search*  to find and edit any track not showing on the screen.
- % *Hide selected track's*  buttons to control which tracks are shown on your screen. Starting



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from left to right, click on the first of these three buttons to show all tracks, the second to show only selected tracks, and on the third to turn tracking off completely.

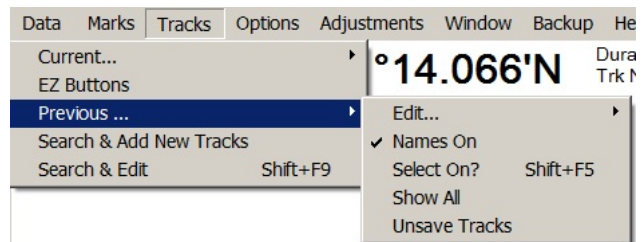
% Then the bottom-leftmost  button will search and add tracks from any drive and directory.

Click on *Exit* to exit the button menu. Click on *Tracks* and then on *EZ Buttons* to recall the buttons the next time. Clicking on the *Buttons off* button turns off the EZ Buttons to switch back to a non-pictorial type track menu. Then the next time you click on *Tracks*, the normal list type (non-button) menu will appear.

NOTE: You will have access to more track functions with the buttons turned off.

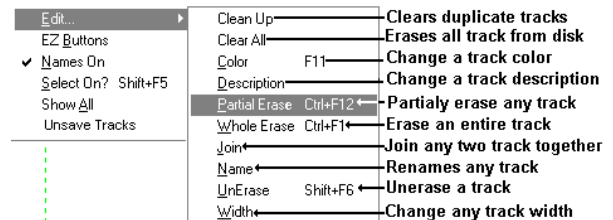
Tracks ' Previous...

Previous tracks are tracks made in the past that have been stored to disk. With this menu you can call the track edit menu, select whether the track names are presented at the beginning of each track, select which previous track you want to appear on the screen or have all tracks shown at once.



Tracks ' Previous... ' Edit...

All but the first two menu items on the *Edit* menu shown below require the tracks to be within the plotter screen in order for the function to work.



To call this menu, click on *Tracks* in the plotter menu bar, then click on *Previous...*, and then on *Edit*. The first item, *Clean Up*, deletes any tracks it finds with the same name and description so that only one is left on the disk. The next item, *Clear All*, will erase **ALL** tracks from the disk. The next item, *Color*, allows you to change the color of any track currently visible on the plotter screen. The next item, *Description*, allows you to change the description of any visible track. Next item, *Partial Erase*, allows you to erase part of a visible track. The next item *Whole Erase* will erase the entire track right from the plotter screen. The seventh item, *Join*, allows you to connect any two visible tracks together. The next item, *Name*, allows you to rename any visible track. The ninth item, *Un-erase*, allows you to un-erase a track if it has not been recorded over yet. The last item, *Width*, allows you to change any visible track's width.

Tracks ' Previous... ' Edit... ' Clean Up (clears out duplicates)

When using several disks to store your tracks, you can easily end up loading the same group of tracks twice. This function will clear any duplicates by finding any tracks with the same name, description and date, then erasing one of them. You are given a choice to clear the erased tracks and if you do, you will not be able to un-erase them. If you don't erase them, you may be wasting disk space. The only way to

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clear up disk space is to clear the tracks. However, you can repeat this procedure any time and clear the tracks then (we strongly suggest backing up data before using this clean up function).

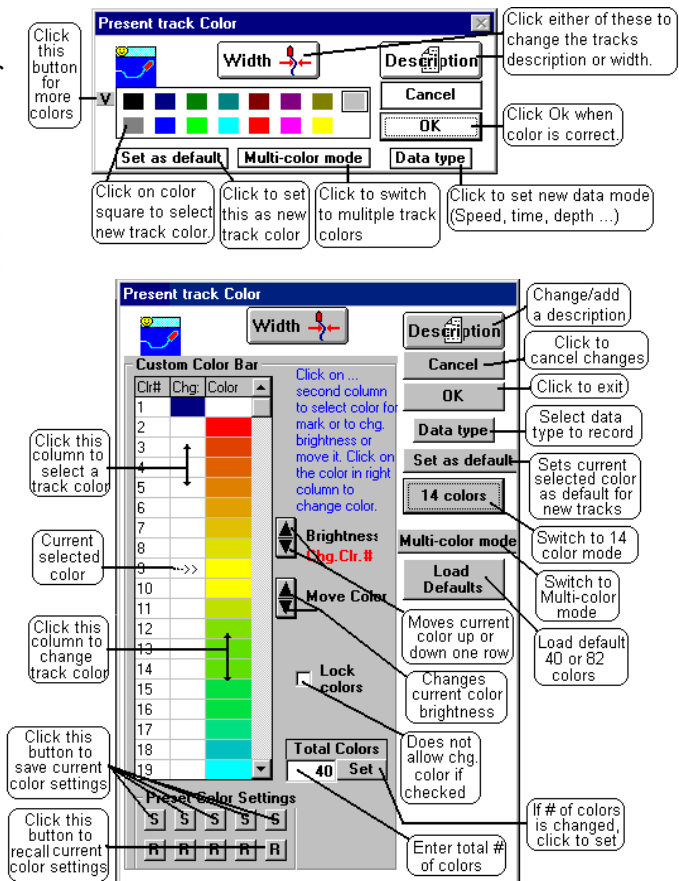
To call the clean up function, click on *Tracks* in the plotter menu bar, then click *Previous*, then *Edit* then *Clean Up*. You will be asked if you want to recalibrate then You will be prompted to confirm that you to go clear out duplicates. Click on *Yes* then you will be asked if you want to just check the Lat/Long's of the tracks or *No* to require name and description match too. When it has completed and dups were found, another dialog box will appear asking if you want to clear any erased tracks. At this point you must decide what you want to do and click on the appropriate buttons because once they are cleared you'll never be able to un-erase that track again. If you are not in need of the disk space you should choose not to clear the erased tracks. Tracks take very little hard-drive space so erasing is not necessary.

Tracks ' Previous... ' Edit... ' Clear All


This function will **erase all tracks from your disk**. Use it with caution and only when you want to start out with no tracks on file. You are given a second chance before the tracks are erased, as a dialog box appears asking if you are positively sure you want to clear all tracks and the drive you will clear them from. Clicking on either *Cancel* or *No* will stop them from being erased. Clicking on *Yes* will erase all tracks from the specified drive and directory. Once erasing all tracks is started there is no way to stop it and there will be no way to recover them.

Tracks ' Previous... ' Edit... ' Color

This function allows you to change the color of any visible track. The track must be appearing on the current plotter screen and it will only make the change for a single color. This does not affect how the track is displayed when multiple-color mode is activated. You must change those colors using the multiple color dialog box described in the previous track color selection. Setting the current track to multiple colors also switches all of the previous tracks to be displayed in multiple colors. Changing the multiple color limits on the current track also changes the previously recorded tracks to the same limits. You can switch back and fourth from solid to multiple color whenever you want without changing the track by calling either the *Pick Track Color* or *Multiple Track Color Limits* dialog boxes and clicking on the *OK* button.



Changing the color of a track:

To change a track color click on *Tracks* in the plotter menu bar then click *Previous*, next *Edit*, then *Color*. A red and yellow change icon  will appear. Use the mouse to place this change icon over the track you want to change the color of and click the left mouse button. (Instead of using the mouse, you can use the keyboard arrow keys to move the change icon over the track you want to change and press the space bar twice.) The *Pick Track Color* dialog box will appear (you may get a larger window if you have more than 14 color mode selected.) Click on the color you want the track to take on and click *OK*. The screen will redraw the track in the new color. Use the **Home** key to re-center the cursor. Click on the *Stop Changes* button when finished or press the **Esc** key.

More than 14 track colors


You can select more colors if your in the 14 track color window above by clicking the left-most button with the down arrow (v). You will get the new window shown to the right here. If you decide to use more than 14 colors then you should give a lot of thought on how you want it set up. Changing the track colors later will result in past tracks without the correct colors.

Default color bar setup

It recommended to select the default 40 or 82 colors by clicking the *Load Defaults* buttons. Then select either *Yes* for 40 colors or click *No* for 82 colors. Click the *Lock Colors* so that you can't accidentally change the colors by mistake.

Tracks ' Previous... ' Edit... ' **Description**

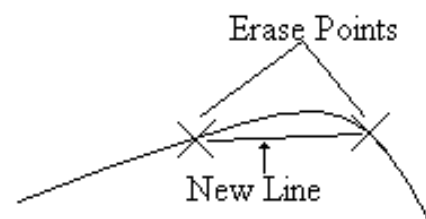
Each track has a description that can have up to 56 letters associated with it. The description can be further divided up into four more categories. The first category is called the main description. The other four can be set up with special headings and are referred to as custom categories (or columns).

To change a track's description, click on *Tracks* in the plotter menu bar, then click *Previous*, next *Edit*, and then *Description*. Place the red and yellow change icon  over the track you want to change and click the mouse button (try to aim at a bend in the track). The description edit dialog box will appear. Edit the description as desired and click on the *OK* button. Refer to the *Current Track Description* described earlier on how to use this dialog box.

Tracks ' Previous... ' Edit... ' **Partial**

Each track takes up the same amount of RAM memory regardless of how many of the 600 points were used by the track or how many you erase using this function. But, the smaller the track is, the quicker it will draw. This function allows you to erase meaningless parts of any track and thus make it draw quicker and clean up the screen at the same time.

To call this function, click on *Tracks* in the plotter menu bar, click *Previous*, then *Edit*, next *Erase*, then *Partial*. A dialog box will appear asking if you want to display the hidden tracks also. Click on the appropriate button and the screen will redraw accordingly. Place the erase icon over the track to be changed and click the mouse button. The screen will redraw with only



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the selected track showing. You must click on two points anywhere on the track then all track points located *between* these two points are erased. Repeat this as many times as necessary to erase what needs to be erased. It does not matter what point is clicked first.

This will not split a track into two pieces. It will always be a solid line as long as there are at least two points left. So erasing in the center of the track may look like you are not erasing the track at all as the program reconnects the two places that you clicked on. For this reason, it is usually best to erase from the ends. When finished erasing, click on the *Stop Changes* button located to the top left of the plotter screen or press the **Esc** key. A dialog box will appear letting you know how many points you will erase and ask if you still want to erase them. Click on *Yes* and the screen will redraw with the new track.

Note: this is a permanent change directly to the disk, once the points are erased there is no way to get them back again unless you have a backup copy on another disk.

Tracks ' Previous... ' Edit... ' **Whole**

This function will allow you to erase any visible track from the disk files. You can also use the *Track Search & Edit* list to erase any track, even those not visible on the screen.

To erase an entire track, click on *Tracks* in the plotter menu bar, then click *Previous*, then *Edit*, next *Erase*, then *Whole*. A dialog box will appear asking if you want to display the hidden tracks also. Click on the appropriate button and the screen will redraw accordingly. Place the erase icon over the track to be erased and click the mouse. A dialog box will appear with the selected track name and number. It will ask if you are sure you want to go ahead and erase this track. Click on *Yes* and the track will turn black indicating that it has been erased. When finished erasing, click on the *Stop Changes* button located to the top left of the plotter screen or press the **Esc** key.

Note: A track can be un-erased so long as another track has not been saved in its place. Erased tracks are used up before adding any new tracks to the end of the list.

Tracks ' Previous... ' Edit... ' **Join**

Two tracks can be joined together at the ends. If you have tracks that somehow became disjointed and the total points of both are less than the maximum track points, (usually 600) then you can use this function to reconnect (join) the ends that got disjointed back to form one-track file. If the total points of both are over the limit, then part of the other end of the second track selected will be lost as you cannot save more points than the maximum track points allowed. The default limit is 600 points. Joining tracks will free up a file and speed redrawing of the screen.

To join two tracks click on *Tracks* in the plotter menu bar, then click *Previous*, next click *Edit*, then *Join*. An icon that says *Join1* will appear. Place this icon on the end of the first track to be joined and click the mouse button. Now the icon changes to a *Join2* icon. Place this icon over the end of the second track to be joined and click the mouse button again. A dialog box will appear letting you know which tracks you have selected and what percentage, if any, of the second track will be lost. Click on *OK* to go ahead and complete the operation.

Tracks ' Previous... ' Edit... ' **Name**


To change the name of a track, follow the procedure that was described above for changing the track's description. You use the same dialog box but replace the name instead of the description. Just remember that you have only 11 characters for a track name.

Tracks ' Previous... ' Edit... ' **Un-Erase**

As mentioned previously in this section of the manual, you can un-erase any erased track so long as you have not saved another track over it. What we mean is that each track has a file number that associates it with the disk file. This is called the track number and it is the number that appears in the first column of the track search & edit list. If you erase track number 10, for example, it won't appear on the list. But if it is the first open (erased) track on the list, then the next track you save will be written in its place. After that, you cannot un-erase the old track #10.


If you want to un-erase ALL TRACKS AT ONCE then go to the *Tracks ' Search & Edit* window and select *Import*. Then click on *Bring back all erased tracks*.

Only tracks that are visible on the plotter screen can be un-erased. Use the dead reckoning feature or the cursor to move the screen so that the track you want to erase is visible.

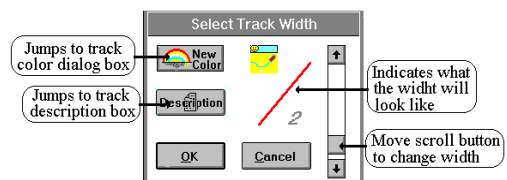
To un-erase a track, click on *Tracks* in the plotter menu bar, then click *Previous*, next *Edit* then *Un-erase*. The screen will redraw the erased tracks in black. Use the mouse to place the un-erase icon  over the track to un-erase and click. The *Track Name and Description* dialog box will appear and the track name will be *Erased* (when you erase a track the program renames it to *Erased*). Delete *Erased* and enter a new name for the track. When finished, click on the *Stop Changes* button located to the top left of the plotter screen or press the **Esc** key.

Tracks ' Previous... ' Edit... ' **Width**

Each track can have its own width. When you select this function, you can set the width of any visible track to any one of the fifteen different widths. This width is stored when you save the current track and does not change until you change it.

To change a visible track's width click on *Tracks* then *Previous*, next *Edit*, then *Width* and the red and yellow change icon  will appear on the plotter screen. Use the mouse to place the icon over the track to change and click. This will call the *Select Track Width* dialog box for the selected track.

Use the scroll bar to adjust the width of the track. As you adjust the width, the dialog box will provide a visual example along with a related number. Click on the *OK* button to confirm your selection or you may click on the *New Color* button to change the track color or on the *Description* button to call the *Track Description* dialog box. The screen will redraw the track to your new specification.



Tracks ' Previous... ' **Names On**

The name you give a track can appear on the plotter screen at the beginning of the track when this function is activated. When activated, a check mark will appear in front of *Names On* when the menu is called.

To change the track name display status, click on *Tracks* in the plotter menu bar to call the track menu. Next click on *Previous*, and then click on *Names On*.

Tracks ' Previous... ' **Select On**

This menu item, *Select On*, allows you to change the display status of any track within the plotter view screen area. (To change the status of a track that is not in view, you must use the *Track Search & Edit* list.) When selected, the plotter screen will redraw with all tracks in the area showing. The tracks that are currently turned off will be in black. (You are never allowed to use black as a track color for this reason.) Placing the change icon on an end or bend in a track and clicking the mouse changes track display status. The track will toggle from color to black or black to its color.

To select tracks to display, click on *Tracks* in the plotter menu bar to call the track menu. Click on *Previous* and next click *Select On*. Place the change icon near a bend in the track to change and click the mouse. You can also use the arrow keys on the keyboard to move the icon and then press the space bar twice to make the change. Using the arrow keys will allow you to go beyond the edge of the screen by moving the icon to any edge.

Tracks ' Previous... ' **Show All**

All tracks will show regardless of their display status when this menu item it is checked (°). Un-checking it will return the display to show only the selected tracks.

To change the *Show All* status, click on *Tracks* in the plotter menu bar to call the track menu. Click on *Previous* and click on *Show All*.

Tracks ' Previous... ' **Un-Save Tracks**

In the unlikely event you loose your track directory or it gets corrupted or maybe even a mistaken saving of tracks from another location without the ADD TO checked (°), we have provided this UNSAVE mode. If you find one day that all of a sudden you have fewer tracks than you had before, most likely you can get the majority back using this function. You will have to rename, redo the description, color and change status of each track that was recovered as this was as contained in the track directory.

To un-save tracks:

- 1 Click on *Tracks* then *Previous* and then *Unsave Tracks*.
- 2 If there is any tracks to regain a message box will appear with the total you can regain. Click on *Yes* to bring your tracks back. This will not affect the tracks you already have and you should see them back on the track list.

Tracks ' **Search & Add New Tracks**

Click on this menu item in the *Track* menu to add tracks from another drive and/or directory.

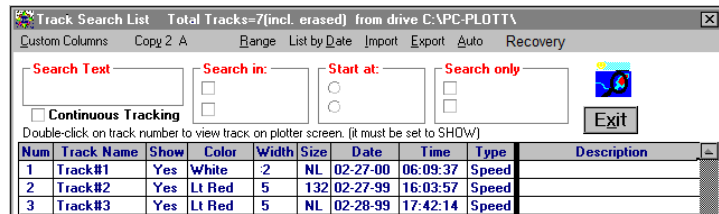
To add tracks:

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- 1) Click on the *Track* menu then click on *Search & Add New Tracks*
- 2) The *P-Sea File Search* window will appear. Click on *Search Now* button to start the search.
- 3) In a short while, all of the **TRACKDIR.DAT** files it can find will appear in a list. This file contains all the information on where and what the tracks are. Select the one you want to add by clicking on it so it is highlighted. You can make your decision based on location, size and date.
- 4) Click on *OPEN* button in the lower-right to add the tracks to your existing tracks. Not that unlike marks, once this is done you are stuck with the tracks until you go in and delete them from your working directory. You will be given a change to cancel as it will inform you first how many tracks you are going to add.

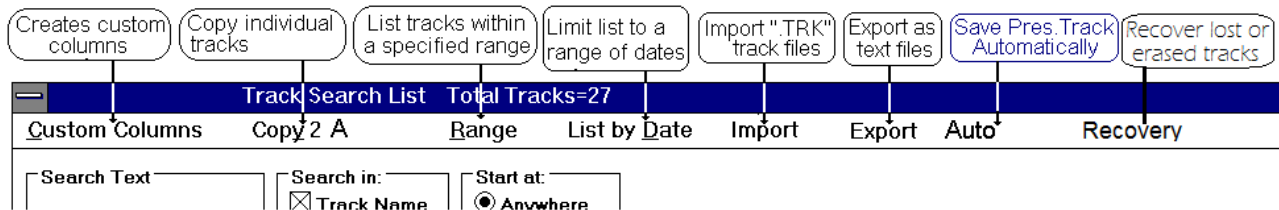
Tracks ' Search & Edit

A window is provided for editing any track and it is called the *Track Search List* as shown to the right. It can be used to quickly find any track and change just about any aspect of it. The title bar shows the drive the tracks are stored on and the total that are available on the disk.



Track Search & Edit window layout

The Track menu bar



Proceeding from top to bottom and from left to right, next is the menu bar containing 8 items. First is *Custom Columns*. Clicking this will call a dialog box to add or remove a custom column. The next item in the menu bar is *Copy 2 drive A*. This allows you to single out and copy individual tracks to another drive. The third item, *Range*, allows you to select a range from the current vessel location. Only the tracks that fall within this range will appear on the list. The fourth item, *List by Date*, limits the tracks you want to list by the date they were made. Set the greater than date and/or the less than date and only the tracks that fall within this range will show on the list. *Import* next item on the menu bar used to import track files made from other programs. Use *Export* if you want to save track files in TEXT format. Click on *Auto* if you want the program clean up and recalibrate or to save the current track automatically. If you think tracks are not showing up when they should, click the *Calibrate* button located at the bottom. This will cause the program to recalculate the highs and lows of the Lat/longs for each track that tells the program where the tracks are in order to display them or not. Click *Recovery* to regain lost or erase tracks if possible.

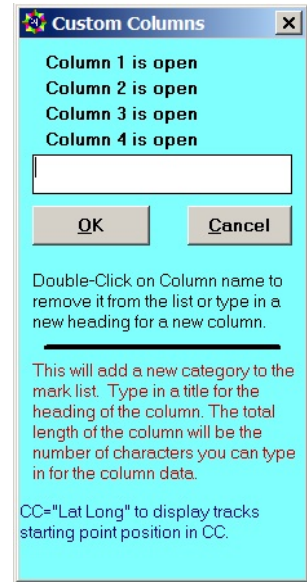
Track Search List Custom Columns:

A track has only one description as the program comes from the factory, but you have the option of creating up to four of your own custom columns, each with its own custom heading. It is highly recommended you set up these columns when you first get the program, as there are only 57 characters reserved for ALL five description columns. In the event you exchange data with other WindPlot users, they also must have the same custom column setup or your track descriptions will become scrambled. So do not use custom columns if you are planning to exchange track data very often.

The number of characters in a custom column is equal to the number of characters in the title that you give it. This same number of characters is removed from the end of the main description. For example, if after recording a number of tracks with long names, you decide to add your first custom column using the 10 character title "_WEATHER_" then all tracks will lose 10 characters in the last part of the main description. Note that 3 spaces were added to the title to make the title 10 characters long.

When you recall some of your old tracks, you may find that part of their description is gone if they were very long.

To create a custom column, click on *Custom Columns*, in the *Track Search List* menu bar and the *Custom Columns* editor dialog box appears as shown here on the right and type in the title you want and press **Enter**. If you need more characters in the column than the number of characters in the title, then add some blank spaces accordingly to the end and/or beginning of the title. Abbreviate the title when it has more letters than you need for the column description. To delete a column, just click on the title as it appears at the top of the box. Click on *OK* when finished. The new column will appear in front of the main description on the track list as shown below.



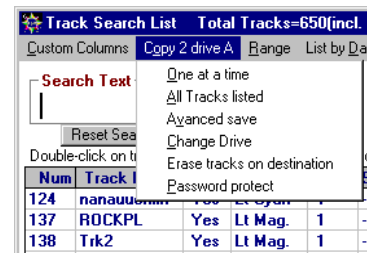
If you make the custom column named "*Lat Long*" and be sure to put only what is within the quote marks then you will get the starting position listed in the track list for each track.

Copy to Drive x

You can copy individual tracks from hard drive to another drive through the *Track Search & Edit* list. Each track will be added to the last one on the drive selected. The X can be any available drive letter.

Copy to Drive ' One at a time

- 1 Click on *Tracks* from the plotter menu bar and the *Track* menu will appear.
- 2 Click on *Search & Edit* from the menu that appears.
- 3 Use the search to find the track to copy.



Window Menu, Long Menu Features

- 4 Click on *Copy 2 Drive x* then click *One at a time* in the *Track Search List* menu bar then click the track number in the first column to copy the track to the selected drive.

Copy to Drive ' **All Tracks listed (To copy a group of tracks)**

- 1 Click on *Tracks* from the plotter menu bar and the Track menu will appear.
- 2 Click on *Search & Edit* from the menu that appears.
- 3 Use the search to find the tracks to copy. Use the extended search also to copy by color or range.
- 4 Click on *Copy 2 Drive* then click *All Tracks Listed* in the *Track Search List* menu bar.

Copy to Drive ' **Advanced Save**

This simply calls the *Disk Data Manager* so you can copy all tracks to and from any drive. See section on *Data ' Tracks*.

Copy to Drive ' **Change Drive**

Click this to select a new drive to send the tracks to when copying either *Single* or *All Tracks Listed*. Then click the down arrow in the drive box that appears and click on a new drive.

Copy to Drive ' **Erase tracks on destination**

Erases any track files on destination drive. Do not use this if the destination is the same drive as the default track drive. Usually this would only be used when you want to copy tracks to a floppy in order to free up room for the new tracks as the old floppies didn't have much room on them like today's memory sticks.

Copy to Drive ' **Password Protection**

Click this to enter in a secret password to lock or unlock your data. With a secret password set, no one can save any tracks or marks to another drive or backup disks thus protecting your vital information. Be sure to use some word you will remember because you will need it to save any of your data to disks or to unlock the password protect. The button changes to say *Unlock Drives* when the password protect is activated.

To set a password

- 1) Click the *Password Protect* button. (If it says *Unlock Drives* then you need to unlock it)
- 2) A red box will appear, enter in your password. Enter your password.
(You will see only "*" stars when you enter it.)
- 3) Click the *OK* button and a message box will say *Enter Password in again to verify please*.
- 4) Enter in the same password again and click on *OK* again.



If you didn't enter the same twice then you have to start over at step one otherwise you are all set with password protection. Be sure to write down the word and put it in your wallet.

To unlock your password protection

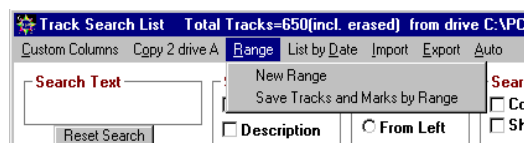
- 1) In the Track Search and Edit list, click on the *Unlock Drives* button located in the lower-right of the window.

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- 2) Once again, the red password protect box appears. Enter in your password. (You will see only "*" stars when you enter it.)
- 3) Click on *OK* and a message box will appear telling you the drives are now unlocked if you entered the correct password.

Range

This menu has two items: *New Range* and *Save Tracks and Marks by Range*.

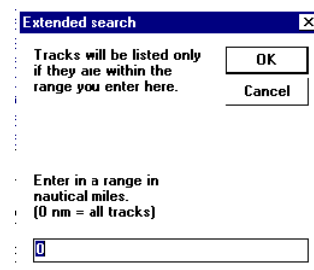


Range ' New Range

Finds and list tracks by range. Enter in a range in nautical miles to have only the tracks within the specified range from the current vessel location appear on the list.

To set a range limit:

- 1) Click on *Tracks* in the plotter menu bar
- 2) Click on *Search & Edit*.
- 3) Click on *Range* and enter in a range in nautical miles and press enter.



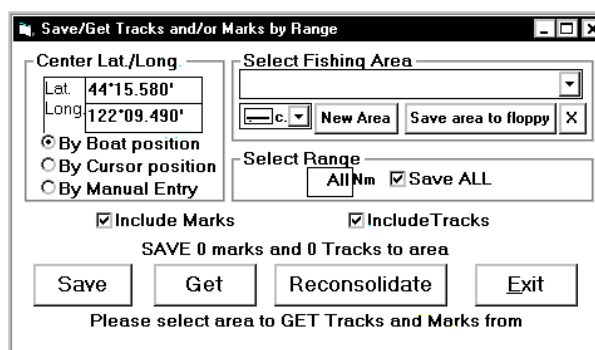
Range ' Save Tracks and Marks by Range

Imagine selecting a group of tracks and marks by the name of the area they are in. This function does that by allowing you to break down your current marks and tracks into smaller more manageable sizes. You simply enter the central area Lat./Long and a range in nautical miles from the area you want to encompass then give it a name. The marks and tracks within the area you set up are saved to that directory. Then when you want to fish a certain area you just select the area you want by name.

It can be called from either the *Mark Search & Edit* or *Track Search and Edit* menus. In the mark menu, you will find it under the menu item *SAVING* and *Tracks Search and Edit* under *RANGE*. Look for the menu item *Tracks and Marks by Range*.

Setting up a new area:

- 1) Decide how you want to enter the central spot for you fishing area. You have three choices. You can move the cursor or boat to the spot. There is a check box for either of these methods. You can manually enter the central position if you know the Lat./Long.
- 2) Click *Tracks* then *Search & Edit* then from the list that appears select *Range* then *Save Tracks and Marks by Range* from its menu.
- 3) If you selected the manual entry, click in the *Lat.* box and enter your Latitude in degrees and minutes. Click the *Long.* box and enter your Longitude. Otherwise click on one of the other two options, by boat or cursor position and it will be filled in for you.



Window Menu, Long Menu Features

- 4) You can choose to limit the process to just tracks or just marks by deselecting one or the other appropriate check boxes locate near the center.
- 5) Click the *Save All* check box so it is unchecked and enter the range you want to save. The program will save only the marks and tracks that fit within the range you specify. A report of how many marks and tracks will be save will appear above the buttons.
- 6) Click the *New Area* button and enter in an eight-letter description for the name of the area then press ENTER.
The program will ask if you have setup the Range and Lat./Long. boxes yet. If you haven't, do them now and go back to this.
- 7) Click on *Yes* and then click on *Save* to complete the process.

Retrieving marks and tracks for a previously set up area

NOTE: It is highly advised to BACKUP your data before proceeding here if you haven't already done so using the *Backup* ' *Do backup* menu before proceeding to the next step here.

- 1) Click *Tracks* then *Search & Edit* then in the *Track List* select *Range* then *Save Tracks and Marks by Range*.
- 2) In the *Select Fishing Area* box click the black down-arrow and click on the fishing area of interest.
- 3) Click on the *Get* button, click on *OK* then click on *Yes* or *No* depending if you want to add these marks to the existing marks you have loaded.

Note: Marks and tracks are not automatically updated as you go. YOU MUST SAVE/UPDATE YOUR FISHING AREA before you change to a new fishing area.

Deleting area file/folders

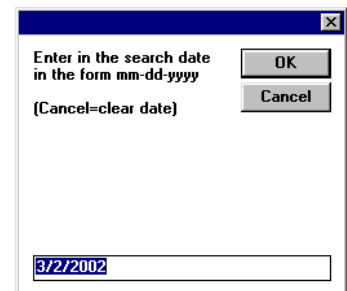
- 1) Click *Tracks* then *Search & Edit* then in the *Track List* select *Range* then *Save Tracks and Marks by Range*.
- 2) In the *Select Fishing Area* box click the black down-arrow and click on the fishing area to delete then click the X button.

List By Date

Find and list tracks by date. This date function allows you to have only the tracks show that match either the less than date or the more than date or both to have only a specific range of days to show.

To set a date:

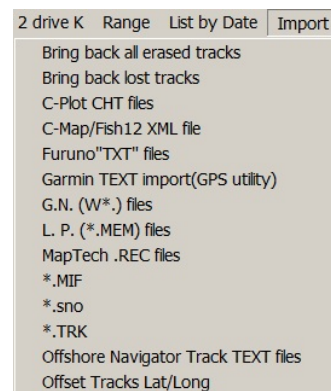
- 1 Click on *Tracks* in the plotter menu bar
 - 2 Click on *Search & Edit*.
 - 3 Click on *List By Date* in the track list menu bar.
 - 4 Click on *Less Than* or *Greater Than* and enter in a date and press enter.
- The list will update accordingly after the entry is made.



Import:

If you have tracks from another program, use the menu to import them into WindPlot. If the program you are using has one of the extensions listed here on the right, then select it from the import list and then switch to the drive and directory where it is located. The tracks are then added to the existing tracks in your WindPlot program. Please note that the import files are usually made by other software

manufactures and very possibly have changed their format since the import routines were made to convert them to WindPlot. So always backup your tracks before attempting to use any of the procedures listed below to protect your track files. That way you can always recall your old tracks in the event something goes wrong. These procedures will also erase your current track so you should save it before proceeding.



Import ' **Bring back all erased track**

The *Import* menu can also bring back all tracks that have been erased. Just click on *Import* then *Bring back all erased tracks*. You will be informed how many tracks will be recovered and given a chance to cancel if you wish. Click on *Yes* to proceed or *No* to quit without doing anything.

Import ' **Bring back lost tracks**

If you think tracks are missing it could be that your track directory is corrupted. Clicking this will do a quick check to see if you can recover any of the possibly lost tracks.

Import ' **C-Plot CHT files**

Click this menu item to import C-Plot track and mark (*.USR or *.cht) files into WindPlot. When you click on it, Windows explorer will appear. All you need to do is navigate to where the C-Plot files are located and click on them so they are highlighted then click *OPEN*.

Import ' **C-Map/Fish 12 XML file**

If you have a Sitex Fish12 that you want to import tracks from you will first need to use C-Map's PC-Planner to convert them to XML files. Just go into PC-Planners *File Manager* and load them from the Fish12 floppy into PC-Planners' memory. Then go back into PC-Planners *File Manager* and save them from the memory to a folder on the hard drive as XML files. Note that you can only convert a few at a time. Each time after you save as XML you will need to clear the PC-Planners user files in order to load and convert more.

Then after all files have been saved as XML then open up WindPlot, click on the *Tracks* menu then select *Search & Edit*. Click on the *Import* menu in the Search & Edit Window and select *C-Map/Fish12 XML file*.

Import ' **Furuno "TXT" files**

This will add Furuno Plotter tracks and marks that were converted by FURUNO as TEXT files. Note that Furuno use to do this for us but have now refused to do so. Click on this to open Window Explorer then just navigate to the Furuno Text file and click on *OPEN*.

Import ' **Garmin TEXT import (GPS utility)**

Click on this menu if you have converted your Garmin tracks to TEXT files using the Garmin GPS utility program that is provided with some units. Then click on this menu item and Windows Explorer will appear, then just navigate to the Garmin TEXT file and click on *OPEN*.

Window Menu, Long Menu Features

Import ' **G.N. (W*.) files**

Imports Gen Nav W*. files into WindPlot. Just click on this menu item and navigate Windows Explorer to where the Gen Nav files are located, click on one of them then click on *Open*.

Import ' **L.P. (*.MEM) files**

Import Laser Plot *.MEM files into WindPlot. Just click on this menu item and navigate Windows Explorer to where the Laser Plot files are located, click on one of them then click *Open*.

Import ' **MapTech .REC files**

Import older MapTech *.REC files into WindPlot. Just click on this menu item and navigate Windows Explorer to where the MapTech REC files are located, click on one of them then click *Open*.

Import ' ***.MIF**

This menu item will import track files from another format with the MIF extension. It is important to save your present track as it will be wiped out by this procedure.

Import ' ***.sno**

This menu item will import Snow tracks *.sno files into WindPlot.

Import ' ***.TRK**

This will import track files from another format with the TRK extension.

Import ' **Offshore Navigator Track TEXT files**

Click on this menu if you have converted your Offshore Navigator tracks to TEXT files. Windows Explorer will appear, then just navigate to the Offshore Navigator TEXT file and click on *OPEN*.

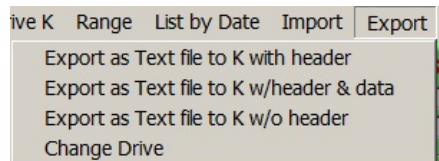
Import ' **Offset Tracks Lat/Long**

Use this menu item with extreme caution as it will change all tracks to a different location that is not reversible unless you know exactly how much offset you applied. It is strongly recommended to back your tracks up before using. It can be used to correct a Loran-C track to GPS if you know how much offset to apply. It can also be used to convert a track done in another coordinate system.

After selecting this option you will be presented with a *Lat/Long Offset* box. Simply enter in the offsets +/- in minutes with decimal point minutes and click on *Apply*.

Export:

WindPlot will export tracks as a text file if you desire. In text format, it can be used in almost any word processor. This is also handy if you want to list the tracks individual points in a text editor like Windows Notepad.



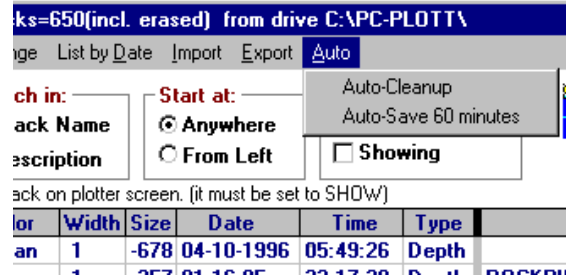
To export track file as TEXT

1 Select *Export* from the track menu.

- 2 Click on *Change Drive* to select the driver where you want the tracks to be saved to. If you just plugged the memory stick in you must exit the track list and go back in before you will see it listed.
- 3 Click on the type of text file to save, (see list above) it should appear on the root of the drive as TRAK#.TXT.

Auto

The *Auto* menu contains *Auto-Cleanup* that clears duplicate and erased tracks and recalibrates them. It also contains *Auto-Save* that will automatically save the present track to disk every so many minutes.

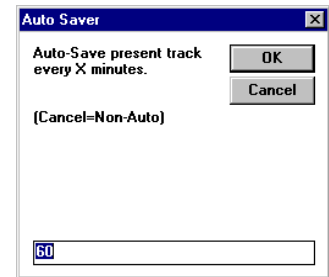


Auto Save:

Automatically save present track every so many minutes. You can also turn off auto by clicking the cancel button.

To set up tracks for auto-save:

- 1 In the Mark Search & Edit and in Track Search & Edit menu select *SAVING ' AUTO-SAVE*.
- 2 Then just select the number of minutes between each save and the program will check to see if they have changed and save if necessary.



RECOVERY ' *Un-erase ALL tracks*

Click this to recover all track that were set to be erased and ignored by WindPlot (tracks are never fully erased until another track is saved over it or you select track clean-up).

RECOVERY ' *Recover Lost Tracks*. If the track directory file (TRACKDIR.DAT) is missing or corrupted you may end up will less tracks than you really have. You can always select this menu item to see if you will regain any lost tracks. Just click it and if any tracks will be recovered you will be told how many you will regain and ask if you want to proceed. Otherwise, you can select cancel and nothing will change.

Track search setup

The next level down of the *Track Search and Edit* list comes to the *Search Text* box and other search setups as described below.

Search Text

When searching for a track when you know at least part of either the name or description, you can use the text search to bring it to the top of the list by entering the partial name or description into the *Search Text* box in the track search list. Before starting the search, you must set up the parameters in the *Search in*, *Start at*, *Width* and *Search only* boxes located to the right of the *Search Text* box.

Window Menu, Long Menu Features

Search in

The *Search in* box is for instructing the computer where to look for the text. When the boxes in front of *Track Name* and *Description* have an "X" in them, the computer will look for text in those places. You can change the status by clicking the appropriate boxes and the "X" will either disappear or reappear. Note: both boxes can be checked so that both names and descriptions can be searched simultaneously.

Start at

The *Start at* box instructs the computer where to begin the search and it can only be a choice of one or the other. When *Anywhere* has the dot in front of it then the word you are looking for can be anywhere within the description or name. When *Left* has the dot, the computer looks for a match at beginning of the name or description.

Search only

The *Search only* box is for eliminating certain tracks that are turned off or do not have a particular color. If, for example, you know that the track you are looking for is on the plotter screen, then you would click the *Showing* box so that it is checked then only the visible tracks will be listed. If you know the color of the track, then click in the *Color* box and select the color of the track you are looking for from the *Pick Track Color* dialog box that appears. Then only the tracks with the color you selected will be listed. You can use any combination of these search parameters in your search.

Width

The default is "Any" and in this mode the track width doesn't matter when it comes to the tracks list. If you want only tracks with a certain width to list then just click the down-arrow button next to *Any* and select a size number and only the list will refresh showing all tracks with the select width. If you check the "Plot only listed tracks" check box then the plotter screen will only display the tracks with the select size

Track List Column Headers

Num	Track Name	Show	Color	Width	Size	Date	Time	Description	↑
9	Track#130	Yes	Lt Yellow	3	15	09-16-95	9:55:35	big name	
10	Ckout	Yes	Lt Yellow	6	7	09-11-95	6:42:38	This is a test of the track displ	
11	Track#153	Yes	Green	5	11	09-16-95	11:44:37	Track description	

Click to change any of the columns shown (Size column will erase the track)

Starting from left to right, the first item is the track number. Next to it is the track's name. By clicking on this column you can enter a new track name. Next is the *Show* column used to control whether or not the track is visible on the plotter screen. Next is the color column that shows the tracks present color. Clicking on this column calls the *Pick Track Color* dialog box. Just click on the new color, then click *OK* button to change the track's color. Next is the track width in a range from 1 (thinnest) to 15. You can change the width by clicking on this column. The next column is the number of points currently in the computer for that particular track. A negative value means that no part of the track has been loaded or visible on the plotter screen. You can delete a track by clicking this column. The next

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two columns are the date and time when the track was **first** saved. The last column is for the track description. You can click on this column to change it. A vertical scroll bar is provided along the right side of the list for quickly scrolling through tracks by either sliding the button in the middle or clicking on the end buttons. You can also use the keys, **PgUp, PgDn, End, Home** and arrow keys to maneuver within the list.

The following is a description of the track list column headers and how to use them.

Num

This is the first column in the header and is the number of the track as given by the computer. It is the same number that identifies it in the files if you were to list them in DOS. When the program refers to the *Track Number* it is referring to this number! If you double-click this number, you will exit the list and the program will display this track on the plotter screen.

Track Name

This is the name of the track given either by the computer or by the user. To change the name, click on a track name in this column, enter in the new name and press **Enter**.

Show

When the column has a *No* in it, the track will not be displayed. When this column has a *Yes* in it, the track will be displayed if it is within the range that the screen covers. To change the show status, just click on this column.

Color

This column indicates the color of the tracks. To change the color, click the track's color and the *Pick Track Color* dialog box will appear. Click on the new color and then click on *OK*. The track's color column will change to indicate the newly selected color.

Width

Tracks can have any one of 15 different widths, 1 being the thinnest and 15 being the widest. The current width is indicated in this column. To change a track's width, click on the width number for that track and the *Track Width* dialog box will appear. Use the scroll bar to change the width and click on *OK* when finished. The width column will change to reflect the newly selected width.

Size

A track is never in RAM memory until part of it comes in range of the plotter screen and the *Show* column is set to *Yes*. This column will indicate whether or not the track is currently in RAM memory. When value in this column is negative, the track has not been loaded. Otherwise it will indicate the total points that make up the track. Click on this column to **delete** any track or group a number of tracks using the search and all tracks will the match the search will be deleted.

Window Menu, Long Menu Features

Date and Time

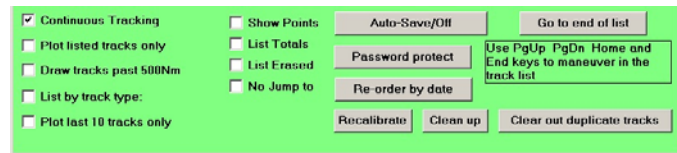
The next two columns indicate the date and time when the track was first made.

Description and custom descriptions

The last column(s) is the description column (and custom columns if you have set up any). Clicking in the column can change both the main description and any custom columns. Then type in the new description and press **Enter**.

Other Track Search List Options

You will find some additional check boxes and buttons located along the bottom of the track list window that will further aid you with managing your tracks shown here on the right.



Continuous Tracking check box: When *Continuous Tracking* is checked (°), tracks will be all solid from start to finish even when halted. Unchecked, the track will be broken where the current track was set on “Halt” (Just press the **H** key to toggle between halt and tracking). This is recommended when using a lot of short tracks or tows.

Plot listed tracks only check box: When checked (°), displays only the tracks that match the current search settings on the plot screen. This is especially helpful when you have a lot of tracks located in one area. All you have to do is set the search so it lists only those you want to see and make sure this box is checked (°).

Draw tracks Past 500 check box: When not checked (°), will stop drawing tracks when zoomed 500 mile range.

List by track type check box: This will list only the tracks that match the type of data they stored (time, temp...). Three buttons were added in the lower right of the *Track Search & Edit* window as extensions of the menu bar.

Plot last ## tracks only When checked (°), displays only the last number of selected tracks. When you check the box you will be asked for how many tracks to display. Then only the last selected number of tracks will show on the list.

Show Points: Tracks are composed of a series of points connected together with lines. When they are normally drawn, you do not see anything but the lines that connect the points together. Check this box to see the individual track points as they are made. It also resets to un-checked when the program is started up again.

List Totals check box: When checked (°), gives total erased tracks and the total that match the current search settings.

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List Erased check box: When checked (°), will display the erased tracks on the track list. Just change the name of the track to something other than *Erased* to un-erase it.

No Jump to check box: When checked (°), will stop the plotter program from jumping to the track list when double-clicking on a track in the plotter screen.

Auto-Save button: Click this button to set the automatic saving of the current track. It will ask for the number of minutes to set the auto-save at. Then every so many minutes it will look at your current track to see if you have added any new points since last save and save it to disk if necessary. Click the **Cancel** button to turn off *Auto-Save*. This button will display the current setting to the right of the word *Auto-Save* with a “\” bar between them.

Password Protect button: Click this button to enter in a secret password to lock or unlock your data. With a secret password set, no one can use WindPlot to save any tracks or marks to another drive or backup disks thus protecting your vital information. Be sure to use some word you will remember because you will need it to save any of your data to disks or to unlock the password protect. The button changes to say **Unlock Drives** when the password protect is activated.

To set a password:

- 1) Click the *Password Protect* button. (If it says *Unlock Drives* then you need to unlock it)
- 2) A red box will appear, enter in your password. Enter your password. (You will see only “*” stars when you enter it.)
- 3) Click the *OK* button and a message box will say *Enter Password in again to verify please.*
- 4) Enter in the same password again and click on *OK* again.

If you didn't enter the same twice then you have to start over at step one otherwise you are all set with password protection. Be sure to write down the word and put it in your wallet.

To unlock your password protection:

- 1) In the Track Search and Edit list, click on the **Unlock Drives** button located in the lower-right of the window.
- 2) Once again, the red password protect box appears. Enter in your password. (You will see only “*” stars when you enter it.)
- 3) Click on *OK* and a message box will appear telling you the drives are now unlocked if you entered the correct password.

Re-order by date

This will re-arrange the tracks so they are all in date order. They can get out of order when you add tracks from other sources.

Recalibration

Click the calibration button on the bottom of the track search menu to get rid of duplicate and to recalibrate the tracks should you lose the track directory. It will also ask you if you want to clear out erased tracks. If you answer yes, the erased tracks can not be recalled.

Window Menu, Long Menu Features

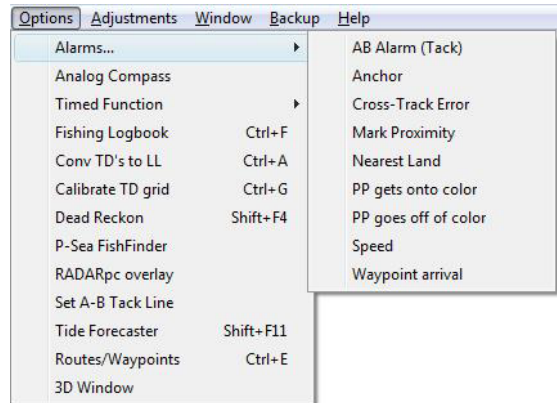
Clean up button will check for duplicates, remove erased tracks, recalibrate then remove erased tracks from the hard drive. It will also ask if you want to re-order the tracks according to date made. This is handy if you constantly add tracks from other sources.

Go to end of list button just takes you to the end of the track list when clicked.

Clear out duplicate button does just that, clears out duplicate tracks.

Options Menu

Clicking on *Options* in the plotter screen menu bar brings down the Options menu.



Options ' Alarms

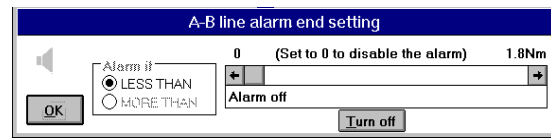
The plotter program has seven alarms setup by the options menu.

To set the alarms first click on *Alarms*, the first item in the *Options* menu. This brings down a sub-menu.

Options ' Alarms ' AB Alarm (Tack)

You have the option of setting up a tack line that will be described in more detail later in this section. This is a line you make by setting two points on the plotter screen with the mouse. Then the computer draws a line between them and calculates the range and bearing to whichever end you're heading for. This alarm function will set an alarm to go off when you get to a specified distance from either end.

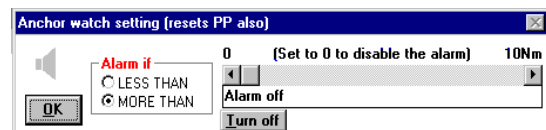
To set the alarm, click on the first item in the sub-menu, *AB Alarm (Tack)*, to call the *AB line alarm setting* dialog box. Use the scroll bar to adjust the distance from the ends of the A-B line that the arrival alarm will sound. (Set the distance to 0 to turn the alarm off.) When the distance you want shows in the box beneath the scroll bar, click on the *OK* button to confirm your setting.



Options ' Alarms ' Anchor

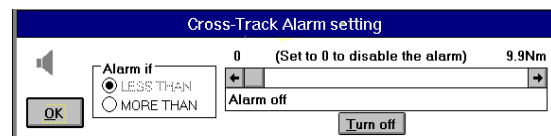
The anchor alarm warns you when the vessel goes beyond a specified distance in any direction from the point where the alarm is set.

To set the anchor alarm, click on *Anchor* in this sub-menu and the *Anchor watch setting* dialog box will appear. It is similar to the *A-B line alarm end setting* dialog box and operates in the same way. The alarm will sound when the vessel drifts more than the distance set. The center point is set at the time the *OK* button is clicked. To reset this point just set this anchor alarm again.



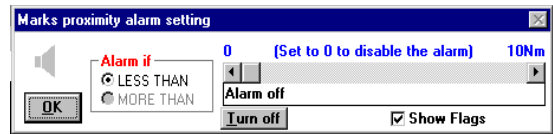
Options ' Alarms ' Cross-Track Error

This set an alarm to go off when you get too far off course from a waypoint that has been set. When the waypoint is first set, an imaginary line is draw between the vessel's location to the destination. **Cross-Track Error** is the distance the vessel is at any time from this imaginary line. The closer you stay to this line as you move towards the waypoint the straighter the course you will make.



Options ' Alarms ' **Mark Proximity**

This sets an alarm to go off when you get within a specified distance of any mark that has its range and bearing flag set. The screen will draw a circle around each of these marks at the distance you set the alarm to go off.

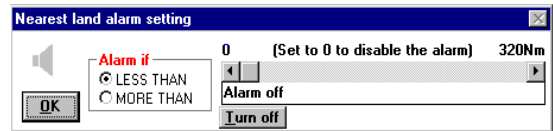


To set the alarm, click on *Mark Proximity* in this sub-menu and the *Mark proximity alarm setting* dialog box will appear. It is similar to the *A-B line alarm end setting* dialog box and operates in the same way. The alarm will sound when the vessel gets within the set distance from any mark with a range and bearing flag attached. The alarm will not sound if no flag is attached.

Options ' Alarms ' **Nearest Land**

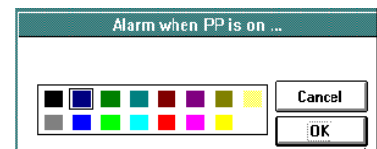
This program has a nearest land calculator that works with vector charts. When this calculator is turned on you will get the distance to the nearest land indicated just under the plotter range in the upper left of the screen and you can set an alarm to go off when you get either too far from or too close to land.

To set this alarm, click on *Nearest Land* in this sub-menu and the *Nearest land alarm setting* dialog box will appear **if vector charts have been installed and are turned on**. This dialog box is similar to the *A-B line alarm end setting* dialog box and operates in a similar way. You have the option of setting this alarm to sound when you get too far away or to close to land.



Options ' Alarms ' **PP gets onto color**

This alarm checks to see if the vessels **present position (PP)** is crossing the color you set. If for example, you have the alarm set to yellow and the vessel wanders onto a yellow link line the alarm will go off. Thus you have a boundary alarm. To use this function you must set the ship's track line to a color that is different from the alarm color and the track width to the smallest track width of 1. Click on *PP gets onto color* in this sub-menu and the *Alarm when PP is on ...* dialog box will appear. Click on the desired color in this box. Then click on *OK* in this dialog box to confirm your selection. The alarm will sound when the vessel crosses this color on the plotter screen.



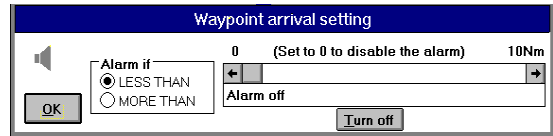
Options ' Alarms ' **PP goes off color**

Set this alarm when you want to stay on or follow a color like a widened previous track. The alarm goes off when the vessel wanders off the color you select.

Click on *PP goes off of color* in this sub-menu and the *Alarm when PP goes off of...* dialog box will appear. This dialog box is similar to the *Alarm when PP is on ...* dialog box shown above. Click on the desired color in this box. Then click on *OK* in this dialog box to confirm your selection. The alarm will sound when the vessel leaves the selected color.

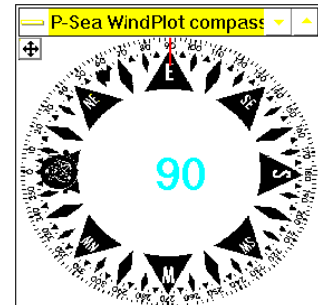
Options ' Alarms ' Waypoint arrival

Click on the last of these alarms, *Waypoint arrival*, and the *Waypoint arrival alarm end setting* dialog box will appear. Use the scroll bar to adjust the distance from the end of the waypoint line that the alarm will sound. (Set the distance to 0 to turn the alarm off.) When the distance you want shows in the box beneath the scroll bar, click on the *OK* button to confirm your setting. This distance is also known as the sequencing distance when using routes.



Options ' Analogue Compass

Click this category to call up a floating compass window. It has a picture of a compass card that will rotate as ships heading changes. Dragging the right or left side can change the size of the window. Heading information will come from a fluxgate compass if one is connected. The heading can come from a GPS but the vessel must be moving in order to get a proper heading. To close the window, click on the minus symbol (-) or plot icon in the upper left of the window and select Close.



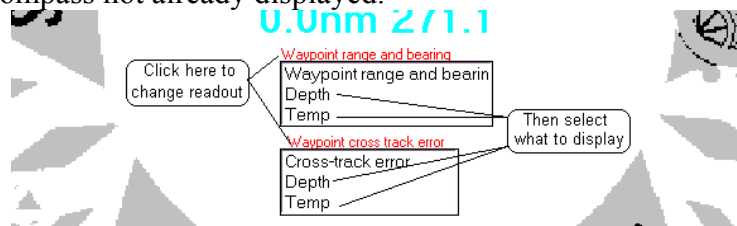
There are two modes of operation with this compass, floating and NAV modes. The default when you first select it is the Floating Mode. In the Floating Mode, the compass can be moved anywhere around the screen by dragging the blue header on the compass. The program will keep checking to see that the compass is on TOP of the WindPlot program. Therefore, whenever you click the WindPlot window or draw focus to it, the compass will disappear. Then the program will automatically bring the compass back to the top so you can see it. The only problem with this method is it does not allow you to see another program that you might be running at the same time.

To get the NAV Mode, click the button in the upper-left of the compass that has four arrows pointing out. The compass will expand to fill the left half of the window while the plotter program is shrunk down to fit the remaining right half. The present position, speed, heading and waypoint information is displayed in the middle of the compass. The program will no longer check to see that the compass is on top and therefore you can run other programs. Click the same button again to reduce the compass back to the floating mode.

When using the analog compass in the *Large* mode it displays present position, speed, course and waypoint information. You can change the waypoint display to either show depth temp temperature instead.

To change the Analog Compass to display temp. or depth:

- 1) Select *Options ' Analog Compass* if compass not already displayed.
- 2) Click the expansion button in the upper-left of the compass window if not already enlarged.
- 3) Click on one of the bottom two RED labels to show a selection box.
- 4) Click on the readout to change it.

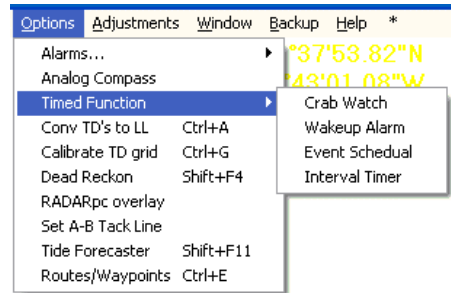


Options ' Timed Functions

Clicking on the third item in the *Options* menu, *Timed Functions*, you can select from three options for timed events; 1) Crab Watch, 2) Wake up Alarm and 3) Event Scheduler.

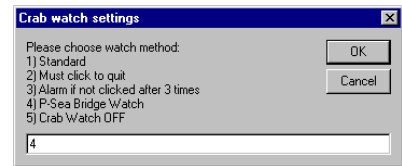
Options ' Timed Functions ' Crab Watch

This is a game that helps to keep the helmsman awake. When activated, a crab will move across the screen making noises. This occurs at random intervals from 1 to 20 minutes. Click on the crab while it is moving across the screen, it will sink to the bottom and a score will be displayed. The crab-watch feature provides three different options of operation. First the crab goes across the screen only once and you must click on it to get a score. Second, the crab continues to crawl across the screen until clicked. Thirdly, if not click after 3 attempts, the WindPlot alarm siren goes off.

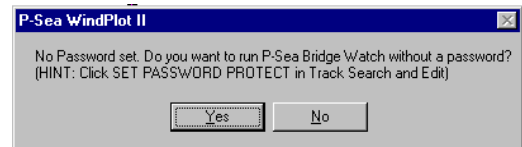


Selecting crab mode or turning off:

- 1 Click on *Options* in the WindPlot menu bar and select *Crab Watch*.
- 2 Enter a number from 1 to 5 as stated in the input box.



#4 – Bridge Watch, this takes the crab watch a step further by making the captain or crew member in charge of the wheel keep awake by just clicking a button.



Opening Bridge Watch: After entering #4 for the crab watch and you have not set a password for file protection, the message box will appear. If you answer *No* then you will be ported to the *Track Search & Edit* window where you can click on *Copy to Drive* menu and select *Password Protect* to set up a password. You do not have to set a password but without it the skipper at the wheel can permanently disarm the Bridge Watch.



Setting Bridge Watch: Click the *Setup* button. Enter your password in the top box if you have one setup and enter the number of minutes for the watch in the bottom box and click on *Close*.



Turning Bridge Watch off: Click on the *Setup* button, then enter your password if you have one set. Then just click the *off* button to disarm the watch.

Reset: The captain at watch can click the reset at any time. This will reset the time to the initial setting and begin counting down again. During the last minute, the display will begin to flash, an alarm will sound both with a beeper and a computer voice (if one is setup) if the *Reset* is not click before the count down gets to zero.

Options ' Timed Functions ' Wake up Alarm

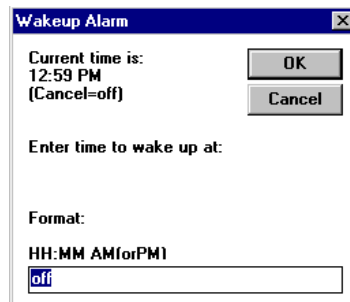
Wake up alarm will sound an alarm every day at the same time. The wake up sound will be a ringing the program can find the RINGIN.WAV file.

To activate the Wake Up alarm

- 1 Click on *Options* then select *Timed functions*.
- 2 Enter in #2 and press the **Enter** key.
- 3 Enter in the time as specified for your wake up alarm.

To deactivate Wake Up alarm

Follow the above steps but click on *Cancel* in step 3



Options ' Timed Functions ' Event Scheduler

The event scheduler can be setup to sound an alarm on any day at any time and it can repeat this event for any period of day you want. Set it up to go off yearly, monthly or by any number of days. The alarm will only go off on that day AFTER the time you have set in. If you turn off the computer and turn it back on the day of an event and it is after the time you entered for the event to be triggered, the alarm will still go off. It dose not reset until midnight of the day the event is to happen. When it does occur, the plotter screen will display whatever message you have entered and sound an alarm.

To set a timed Event Scheduler

- 1 Click on *Options* then select *Timed functions*.
- 2 Enter in 3 and press the **Enter** key.
- 3 Click on the first column in any one of the open rows or click the *New Schedule* button.
- 4 If you want this to be monthly press **M** now or if you

On	Time	Start date	Period	Alarm Event Discription
X	06:30 am	01-20-2000	7 days	Backup WindPlot data
X	09:00 am	01-10-2000	90 days	Change Eng. Oil
X	11:00 pm	01-10-2000	Monthly	Do Laundry
X	09:00 am	04-16-2000	Yearly	Wifes birthday in 3 days
X	09:01 am	04-12-2000	Yearly	Wifes birthday in 7 days

Click any column to change or delete any time schedual.
(All fields in the row must be completed for the event to work)

Enter single letter here: X=on, Y=yearly
T=temp. & M=montly

Click this or blank area to set new event

Enter time when event alarm is to sound off.

Enter the first day the events is suppose to happen.

Enter the number of days if not a year or monlty event.

Enter what you want displayed when the event alarm is triggered.

Click when finished

Deactivates all alarm events.

want this to be a yearly event press **Y** now or if this is a one time temporary event type **T** now. The third column, *Period*, will indicate your choice and an X will appear in this column.

When using the **T** or the temporary mode, the event is erased off of the schedule after the event happens.

- 5 Click on the second column, *Time*, and enter in a time that you want the alarm to activate in the "hh:mm:ss am/pm" format where hh=hour, mm=minutes, ss=seconds (not necessary to enter) and am or pm. The alarm will sound anytime after this time, it does not have to happen on the exact time.
- 6 Click on the third column, *Start Date*, and enter the date when you want the alarm to activate. The computer put in today's date, just backspace and enter the correct date.

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- 7 If you want to repeat it weekly or a specific numbers of days then click on the fourth column, *Period*, and enter the number of days you want between alarms. Weekly would of course be ever 7 days.
- 8 Click on the last column, *Alarm Event Description*, and enter in what the event is for. This will be displayed on the plotter screen when the event happens.

To delete an event

Just click anywhere on the row of the event you wish to delete and click the *Delete Event* button that appears at the bottom of the schedule.

Activate/Deactivate an event

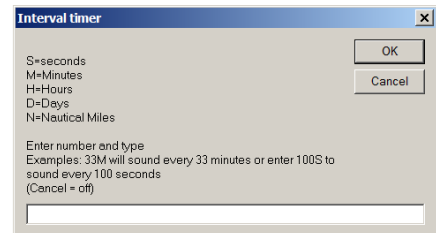
You can disable the any event without erasing it by clicking on the first column, *On*. The event will only trigger an alarm if this column has an X in it. Just click this column to toggle the X on or off.

Options ' Timed Functions ' Interval Timer

The interval timer will beep every so many minutes or miles when set. Double-click the speaker icon in the Windows task bar to set the volume.

To set the timer

- 1) Click on “*Options*” in the WindPlot menu bar and select *Timed Function/Interval Timer*.
- 2) Enter the value and follow it by the proper units as indicated in the window shown above.
- 3) You have the option to enter it in days, hours, minutes, seconds or Nautical miles. Just follow the instructions given in the box that appears after you selected



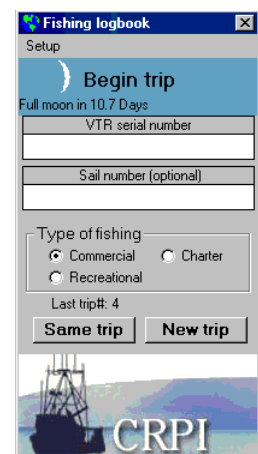
Options ' CRPI Fishing Logbook

This version incorporates a fishing logbook that has been developed using the guidelines from the Cooperative Research Partners Initiative study fleet program. The US Government provided funding for the development of this and other projects so that NOAA and the fishermen can come up with a plan to properly manage the fisheries and fish population. It seems to P-Sea Software Co. to be the first real step in solving the problem of managing the fish stocks so that our future fishermen will have something to harvest.

Starting up

The Logbook is activated via the *Options* menu in WindPlot and select *Fishing Logbook*. The opening window requires a couple of items to input before you can get into the logbook; VTR Serial Number, Sail Number and type of fishing (Commercial, charter or recreational). Then if your restarting the program within the same trip click the *Same Trip* button or for the start of a new trip click the *New Trip* button.

VTR Serial Number it the seven-digit number in the upper right-hand corner of the Fishing Vessel Trip Report, which is required to be filled out on every trip the NE Multi-Species permitted vessel.



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Sail Number is the number given to a captain when he/she calls in to NOAA Fisheries to declare he is going fishing in the NE Multi-Species Fishery. This is not applicable to fishermen equipped with, and using, an approved VMS system.

Type of fishing is self explanatory, just click on one of the three choices that best describes your type of fishing.

Setup

You must enter the setup data before you can start a trip. This is information only needs to be entered once. It involves data like operators name, vessel information, permit number, gear, port and satellite setups. To enter your setup information, click on *Setup* in the Logbook menu bar. This menu will only appear if your not currently doing anything with an effort. Be sure to click on all tabs and enter all of the information in all boxes. Do not setup the Satellite unless your going to communicate your logbook data back to shore.



Personal Info

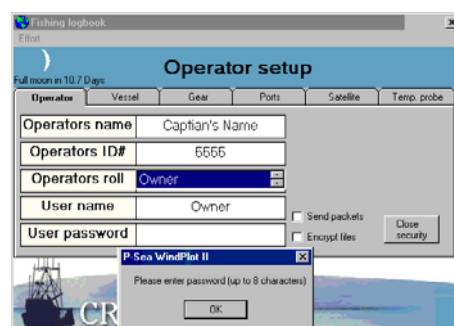
You must enter the Personal and Vessel info before you can begin an effort. Click on *Setup* in the Logbook menu bar. Enter in the *Operators Name* and *ID#* for the *Owner*, *Captain* and *Crew*. Just click on the white area in the *Operators Roll* and click on one of the choices to switch rolls.

Security

There are 3 choices to operators roll: Owner, Captain and Crew, each with there own level of security. The *Owner* has the most control including changes in passwords. The first time this is selected you will have to make up and enter a password. This password is burned into the key itself and CAN NOT BE CHANGED without knowing the password. Put the password in a safe place because you will have to return the key for reprogramming should you forget what it is. The Captain can do just about anything that the Owner can except changing the password. The Crew is limited to just data entry and locked out of any kind of file copy or editing. The *Owner* and *Captain* each have their own password.

First-Time Security Setup

Only the Captain and Owner have to worry about setting up passwords for the security and each is set the same way. First change to either *Owner* or *Captain* then click the *Change Security* button. You will be asked for a name for your security, this can be your name, just make sure to remember what you enter. Now make up a password of at least 5 letters and write it down somewhere where you will find it so you don't have to send the key back for reprogramming when you can't change your files. Enter the password, you will not see it when you type



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it so that someone looking over your shoulder will not know what your typing. Then you will be asked to enter it in again for verification then the security is set. Click the *Close security* button to end the setup.

Setting up for IRIDUM Satellite Communications

The Iridium modem may already be setup properly. It may be best to just connect the modem and antennas, then run WP. Then jump to *Setting up WindPlot logbook COM Port* and see if it works first.

Using the “Terminal Software” to setup the modem

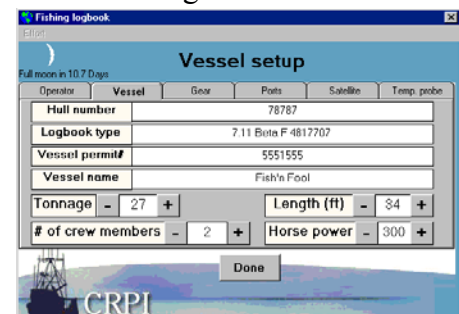
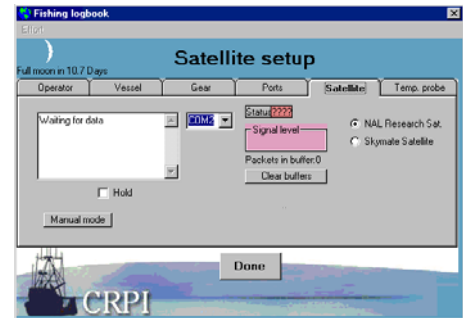
The SIM in the modem must be set for the REGULAR and SDB (send data burst) modes. Please perform the following steps required to setup the modem.

- 1) Connect the modem to the external antennas.
- 2) Install the Terminal software that came with the modem.
- 3) Run the *Terminal Software* program you will find under PROGRAMS/NAV.
- 4) If the COM# in the upper right is not the COM# that the modem is connect then disconnect by clicking the telephone icon with the red X on it, click on the *Options ' Properties ' Set Properties....* Then change the COM port: to the proper port that the modem is connected to and click on *OK*.
- 5) Click the connect telephone icon if not connected.
- 6) Click on *Configure* button in the lower-left.
- 7) In a minute or two the settings screen should appear. Wait until it does.
- 8) Make sure the *Start Up Mode* is set for *Regular*, put in a ID and Password. Maybe use the same as the log book captains password and ID.
- 9) Click on *Ok* and then click on *Close*.

Setting up WindPlot logbook COM port

- 1) You can leave the modem on if is already on.
- 2) Start WP II and open the logbook using *Options ' Catch and Effort* menus.
- 3) Click on *No* when it ask if this is a new trip (this prevents sending the begging packet when the modem is not setup yet or if you had to stop the program during a trip for some reason.
- 4) Click on *Setup* menu in the Logbook window.
- 5) Click the *Send Packet* check box if not already checked.
- 6) Click the *Satellite* Tab.
- 7) Change the COM number to the COM number the modem is connected to.
- 8) That is it, you should see a signal level in a minute or two when all is working ok.
- 9) Click on *Done* and close the Logbook then restart when you wish to start a trip.

Once the above procedure is successfully completed, there should be no need to change any of the satellite settings. You can start the modem before, after or anytime during the logbook session.



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Vessel Data

Click the *Setup* menu and then click on the *Vessel* tab. Fill in *Hull Number*, *Logbook Type*, *Vessel Permit#*, *vessel Tonnage*, *Length* and *Horse Power*. The Vessel Permit # is the six-digit permit # issued to a fishing vessel by NOAA Fisheries.

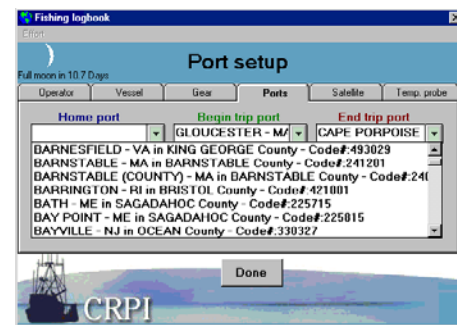
Gear Setup

Click the *Setup* menu and then click the *Gear Setup* tab. Click the drop-down button on the *Select ACCSP Gear Description* combo box and find the description that best fits the type of gear you are going to use. Now click in the white area of the “Select or Add Gear Description” box and enter in a description of the gear in your own words. Then set the appropriate quantity settings for the gear selected. Click the *Select/ADD* button when satisfied with your gear setup. The log book will remember these settings and the next time you use this gear you can just “Select” the gear using the top gear drop-down button and click on it.



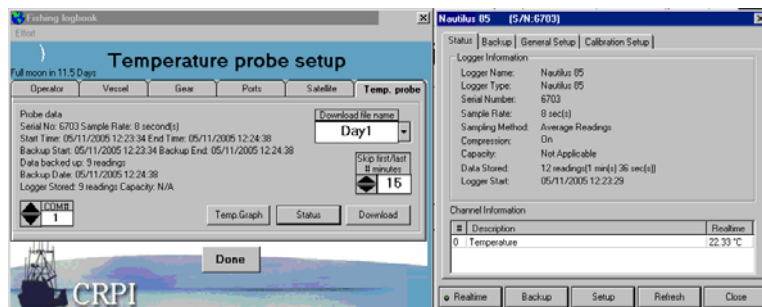
Port Setup

Click the *Setup* menu and then the *Port Setup* and select your *HOME*, *BEGIN* and *END* trip ports by clicking the drop-down buttons on the appropriate buttons. Also enter in the *Number of Crew Members* and *Landing* number. The Landing Number is obtained when the captains call NOAA Fisheries to declare a fishing trip over. This is not applicable to vessels equipped with, and using, an approved VMS system.



Temp. Probe

This logbook is capable of reading the ACR *Nautilus85* data logger. After reading this data a temperature graph is displayed and the average temperature is added to the effort.



Setup Temp. Probe: First set the *COM #* to the same number as the port your plugging the probe into (this can be the same port as the GPS is plugged into). Click the *Status* button, you will get the right-most window “Nautilus 85” shown above here if it is working. You will get a “Failed” message if you got the wrong COM port number or if the port is not available. Make sure P-Sea WindPlot is not trying to use this port by going into the *Chg. Com Port* in the *Adjustment* menu and make sure the port is disabled.

While the Nautilus 85 window is open, you can change the interval and other configurations for the them probe by clicking on the *Setup* button. However, all data currently in the probe is cleared when you enter the setup.

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Downloading Temp. Probe: Just plug in the probe after each effort and set the number minutes for the *Trimming* of the data. This is the time it takes the probe to stabilize once it has reached the working depth. Usually allow 15 minutes plus the time it takes to set the gear. Change the *Download file* name if it is a new reading and click the *Download* button to start the download.

Clearing data from the probe: Click the *Status* button to reset the probe. You will need to decide when is best for them to take the data logger off the gear and download the data into the program, based on your fishing operation. It could be between efforts, at the end of the day, or at the end of the trip, depending on what is most efficient.

Starting a Trip

- 1) First open the Logbook by clicking on *Options* in the WindPlot menu bar.
- 2) Select *Fishing Logbook*
- 3) Enter your VTR and Sail numbers if needed and click the “New Trip” if this is a new trip. If you have to shut down the computer or program before the end of your fishing trip then you would click the “Same Trip” button, that way you use the same trip number. You should start a “new trip” as soon as you leave port.

Note: You can click the *Hide* button so that just a stop sign intermittently appears, clearing the screen for plotting.

Starting an Effort

Just click the *Go* button to start an Effort. When you have set or start to set your gear is when you should start an effort.

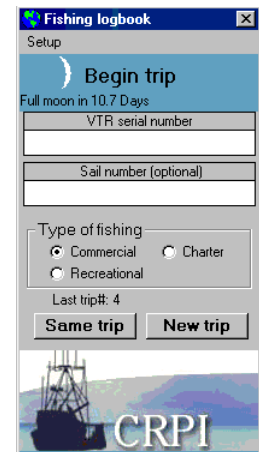
Ending or Pausing an Effort

- 1) Just click the *Stop* sign to end an effort. Usually this is when you just pulled or start to pull gear.
- 2) Click the yellow *Pause* button to keep an effort open and allow for the start of another effort without closing them out yet.
- 3) Click the *Skip* button if your still pulling gear or your not sure what the catch is yet otherwise enter the catch at this time or click the *Lumped* button when grouping several efforts lumped under one catch.

Note: You can go back and change or add to the catch table at any time before the trip has ended.

- 4) After entering your data click the *Close* and if you do not have a fish-finder attached to the plotter and you do not have 3D you will be asked for a guess at what the average depth was for this effort. Go ahead and enter the depth and depth units when asked.
- 4) Now you will end up at an effort summation window. At this point you can click on and of the Lat/Long's and times to alter them if they are wrong.
- 5) Click on “OK” when your satisfied with the data on this window. Now you can wait for another effort or end the trip when back at port.

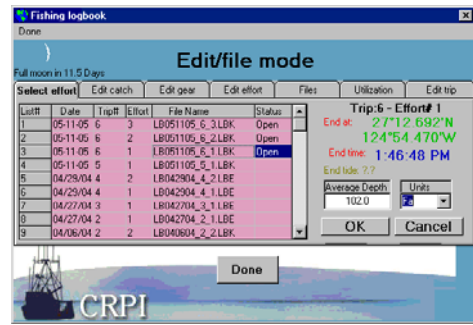
Hint: Long trip back to port? Close the log book without ending the trip and click the *Same Trip* button when restarting it.



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Closing Paused Efforts

- 1) Click on *Edit/Files* button on the menu bar of the logbook program and click the *Select Effort* tab if not already selected.
- 2) You should see *Open* for all paused efforts that have not been closed. Just click on the effort to show the end-effort window located on the right.
- 3) Enter in the depth if needed and click on *Ok*.
- 4) Click the *Edit Catch* and enter in your catch for the effort.
- 5) When ready, click on the *Utilization* tab to enter in how the catch was disposed of.



Closing Skipped Efforts

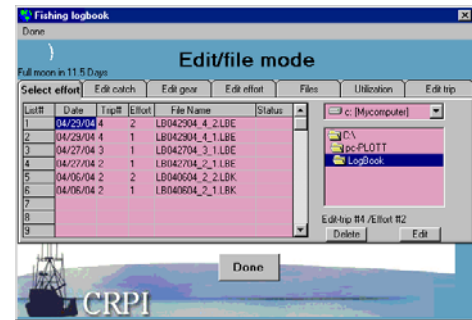
- 1) Click on *Edit/Files* button on the menu bar of the logbook program and click the *Select Effort* tab if not already selected.
- 2) Click on the effort you want to close.
- 3) Click on *Edit Catch* and enter in your catch for the effort.
- 4) When ready, click on the *Utilization* tab to enter in how the catch was disposed of.

Editing Efforts

Any effort can be edited or reviewed at any time except during an effort.

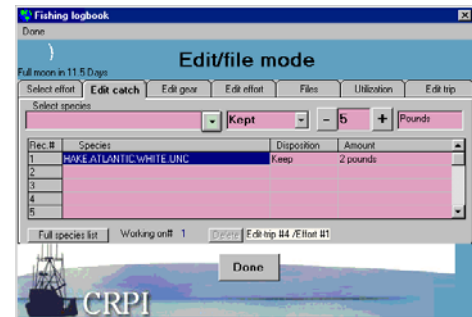
Select Effort to Edit

Click the “Edit/Files” menu to enter the logbook EDIT mode. The first tab in this window *Select Effort* is where you select the effort you wish to edit. Simply click on the row of the effort to edit. You can also select another drive or folder to look in this window as well. The grid displays the *Date*, *Trip#*, *File Name* and where the effort is *Lumped* or not.



Edit Catch

After selecting the effort you can click the *Edit Catch* tab to add or edit the catch for the effort. If it is lumped, only the last effort should have a catch filled in. If you wish to **delete** a catch entry, just click on the *Rec. #* (first column) of the catch entry to delete and click the *Delete* button. To **add** a catch just click on the next open row then click the drop-down buttons to select the *Species* and *Disposition* (if no species appear in the list you need to install some using the *Full species list* described next). Then enter the quantity, when all fields are filled you can click on the next open line and repeat the process again until all species are entered then click the *Save Changes* button.



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Full Species List

A full list of known fish species is available from the *Edit Catch* window in the *File/Edit* mode. Just click the located at the bottom-left of this window labeled *Full species list*. A list will drop down from the bottom of the logbook window. You can use the scroll bar on the right to scroll through the list to find a species. The list is alphabetized, you can press the first letter of the species if you know it to jump to the start of that part of the list.

Adding a species to the short list in the *Edit Catch* window

When you do not find the species you want from the *Select Species* short list provided on the *Edit catch* window you can add on by clicking on the right-most column (x short) in the *Full species list* as mentioned in the step above this one. You will be instructed to enter a number for the position in the short list that you want this species to appear at or just click *OK* to let the computer assign a position.

Edit Gear/Effort Tabs

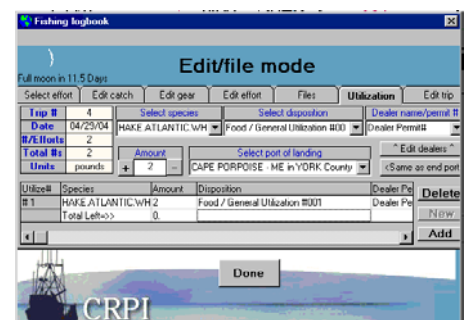
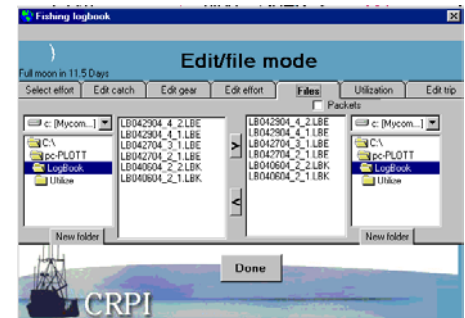
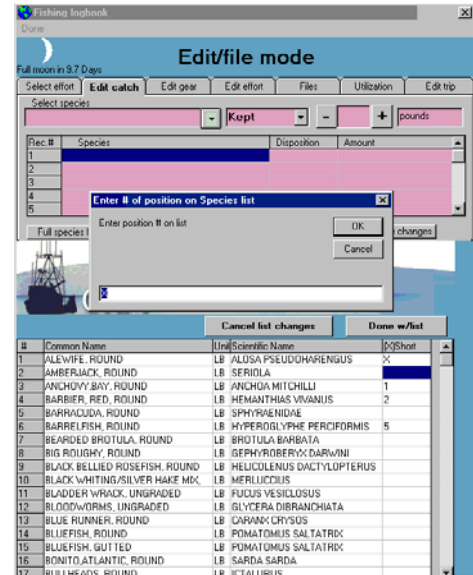
Usually you will not need to change anything in the Gear and Effort tabs but they are there for your review and possible editing. Just click on any one of the items to change them. If your using the ACR data logger then you will need to click on the *Edit Effort* tab in order to download the data from the probe for this current effort only.

File Transfer

Click the *Edit/Files* menu then click the *Files* tab to open the log book file transfer window. This window list all logbook files it finds. There are two sides, each can be set to any drive and directory by clicking on the drop-down button and double-clicking on the desired folders. Then highlight the files you want to transfer and click the arrow button in the middle of the form to transfer the files to the direction that the arrow is pointing. Example would be to switch the drive on the right part of the window to "A", put a floppy in the drive, select the file(s) you want to transfer on the left file list and click the top arrow button located in between the two files lists that point to the "A" drive side. You can also make a new folder to put them in by clicking on the button labeled *Folder* at the bottom of each file list.

Utilization

Utilization should be entered before you officially end your trip. To enter your utilization data, click on the *Edit/Files* menu and



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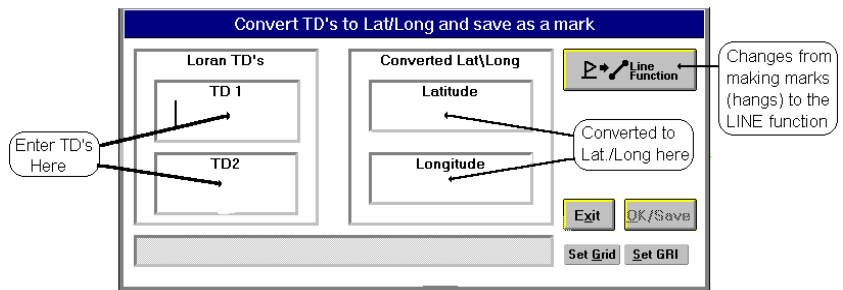
click the furthest tab on the right *Utilization*. The box to the left of this window lets you know what trip it was for, the number of efforts involved and the total units (pound, bushels...) that you have to account for. Simply select the species, disposition and amount then click the *ADD* button. The list will give the total left you need to account for at the bottom of the list. You can also scroll over and add what you were paid for each species. You must also enter the *Port of Landing* and *Dealer Permit* numbers.

Phases of the Moon

As an added bonus, there is a moon phase indicator located at the top of the log book window with both graphical and digital representation of the current moon phase. You can click on the current moon phase label to enter a number of days to know what the moon phase will be at that time as well.

Options ' Conv TD's to LL

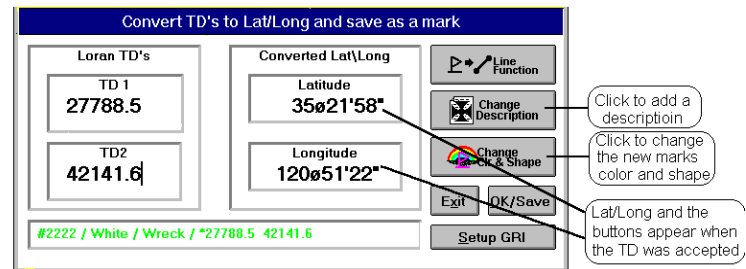
Click on the Fifth item in the Options menu, *Conv TD's to LL*, and the *Convert TD's to Lat/Long* dialog box will appear. If you have not set up the GRI, click on the *Setup GRI* button. The lower section of the dialog box will expand to include the Loran chain and slaves selection boxes.



Entering TD's

Use the top row of keys on the keyboard to enter your first TD number. This number must be six digits with a decimal point before the last digit and it must be from the same station as the first number

that appears when you click the *Setup GRI* button. (You will get an error if the Loran TD's are out of order or the GRI is not set up) Press **Enter**, press **Tab**, or click on the lower TD box and enter the second TD. Then press **Enter** or click on the conversion button in the upper right of the dialog box (the conversion button will not appear until you have the TD's entered in properly). The screen will flicker and the converted TD's Latitude and Longitude will appear in the middle boxes. The TD numbers shown in the lower section of the dialog box are added to new marks' descriptions as they are made.



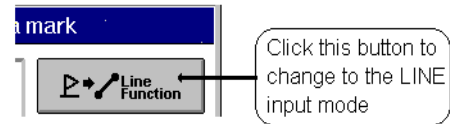
Error message or all zeros for L/L

If the TD's you enter are too far away from the Loran GRI and secondaries you have set up you will get an error message in the green box and no Lat/Long will be returned. If this happens, try entering the TD's in again. If you get an error message again, verify the Loran settings you have selected for the Loran conversion program. The GRI/Slave setup box will appear in the lower section of this dialog box each time you get an error message. You can also manually call the GRI setup by clicking on the *Setup GRI* button located under the *Exit* button.

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Line conversions

In some cases you may want to enter a series of TD's and have them join together with only a line showing between them. This is useful in setting up boundaries or setting up a track to follow beforehand. There is a button provided for this purpose that makes the TD converted change to this mode. It appears in the upper right had corner when first calling the TD converter.



To generate lines using TD's

Call the *TD conversion* box by clicking on **Ctrl-A** or click *Options* in the plotters menu bar then click on *Conv TD's to L/L*. Click on the button in the upper-right labeled *Line Function* and two check boxes should show just below the button and the button will now say *Mark Function*. Now the first reading should not be connected so make sure the *NO-Connection* option is selected by clicking on it. Do the first reading conversion. When the conversion is successfully done, a button will appear for changing the color and width of the line that connects the two reading. Click this button and use the mouse to change the color by clicking on the desired color. Select the width by clicking on the up/down arrows. A line is shown next to the arrows that will change in width as you click on the arrows. Click on *OK* when you are satisfied with the color and shape. Click on *OK/Save* to keep that reading and start the next one. Click on *Connection* so the next reading will connect to the last one and enter in another reading in the same manner.

When all readings are done for that line, then either start a new line reading with the *NO-connection* selected or exit the *TD conversion* box. (Note: this operation will not save the TD readings in the description box so you must be sure to see the TD box is checked in the Search & Edit window.)

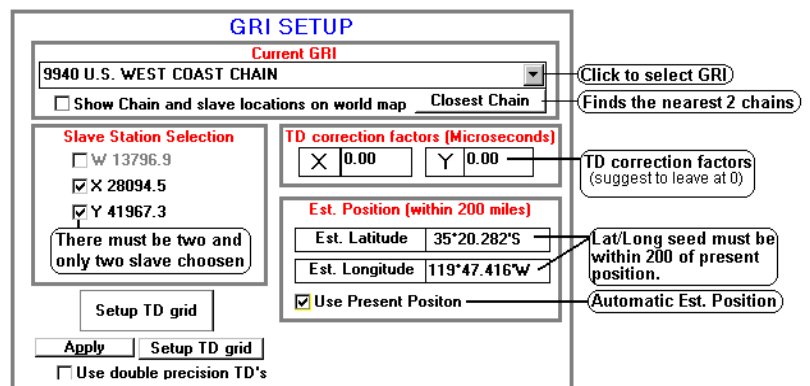
To change back to converting TD's to marks

If you have been entering a number of line readings and you want to switch back to entering some marks, just click on the button in the upper right-labeled *Mark Function*. When you are in this mode to enter marks there will be no lines showing on the plotter screen between the line readings. **You must leave the TD conversions button "Line Function" on in order for the lines to show on the plotter screen.**

GRI setup

Before you can convert a Loran TD to Lat/Long, the GRI chain and slaves must be setup properly.

This involves the selection of the master GRI and two slave stations. If you do not know what chain to use, look at a chart of the area. On it you will find a listing of the GRI's and slaves for the area. If your not sure, click the *Closest Chain* button to find the two closest chains. Keep in mind that the closest may not be the best. The slaves are identified by the chain number followed by a W, X, Y or Z (for example 9940X). Usually there will be three or more slaves to choose from.



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Choose the two slave lines that cross at an angle that is the closest 90 degrees.

Entering GRI: To enter the GRI and slaves first click on the down arrow to the right of the GRI selection box. Use the scroll bar on the right to find your GRI from the list that appears and click on it to select it. Select the two slave stations by clicking on the boxes in front of the slave listed below the GRI selection box so that an X appears within the boxes. (You must select exactly two.) The chosen slaves will appear darker in color.

Correction factors: You may want to put a correction factor in for the slaves. Make a couple of conversions and check the results before you decide. **Calibration is done with L/L so do not use TD correction factors unless you are absolutely sure you need them.** If you do add microsecond corrections then DO NOT USE ASF. If you find the conventions to be a little off, you can enter a small correction. The corrections are in microseconds. You will have to consult a chart to see which TDs to alter and what direction to alter them. If you want to determine the value of the corrections by trial and error, start with corrections of +/- .01 or more. Click on the box behind the slave letter, type in the correction value, and press **Enter**. The program remembers all values and changes so that they will come up with the same setting the next time you run the program.

Entering another mark or line reading: You can change the color, symbol and description for marks and width and color of lines for line readings of the conversion you have just made by clicking on the appropriate button located to the right of the dialog box if you do it before entering a new mark.

Click on *OK/Save* button to permanently add the converted TDs to the mark list. You must make any changes to the new marks or line readings before you start a new conversion.

Automatic Loran-C Grid Overlay

The grid lines are like the TD overlays you see on nautical charts with the exception that you have control of the microsecond spacing and line color. The grids will automatically appear anywhere in the US coastal waters. The GRI and TD's are selected automatically as you move from one area to another. You can override any setting if you do not like the GRI or TD pair WindPlot selects. The changes are saved as you exit the setup so the next time you are in the area, it will recall your selections. The grid lines will disappear when ranging 50 miles and over. Hangs that are entered using the TD converter built-in WindPlot can be calibrated allowing you to use a GPS to find old TD hangs somewhat accurately. You use to use a Loran-C nearby to take readings from to calibrate WindPlot, but now Loran-C has been shut down so you can only use another calibrated WindPlot to calibrate the TD's. For this reason we are leaving the calibration procedure in WindPlot. Otherwise you have two other options, you can use our new ASF (automatic secondary correction factors) or add the offsets yourself.

If you decide to calibrate with another calibrated WindPlot you will need to place the two GPS's as close as possible to get the best results before you proceed to calibrate.

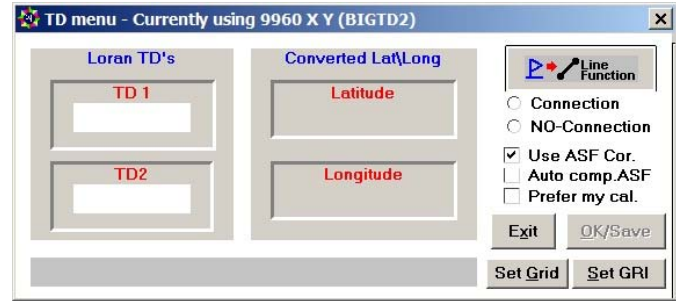
ASF (Automatic Secondary correction Factors)

P-Sea Software has incorporated ASF correction with the shutting down of Loran-C operation. What this means is the software will apply ASF corrections to any mark made with a TD. So far our test has found this to be almost as accurate as when using the program to calibrate to a known Loran reading. There is also an option will a mix of the past calibrations already made when in it is in range and switch back to ASF when there are no calibrations nearby.

Adjustments Menu, Long Menu Features

To use the new ASF corrections you must first have WindPlot version 7.22 or better installed and you must have purchased the ASF activation code for \$50.00 from your local P-Sea Software Co.

To install the code just try and turn ASF on, the program will ask for the code before it will turn ASF on.



Turning ASF on and off

- 1) First, you must have the "Use ASF Cor." check box checked when you select the menu "Options" then "Conv. TD's to LL".
- 2) Then TD grid lines must not be completely off or none of the ASF corrections will be applied. To set the TD grid lines, click the "Set Grid" button turn the TD grid lines on or select "Hide" if you don't want to see the lines.

When ASF and the grid is set then when you un-check the "Use ASF Cor." you will be using your previous TD corrections if you have any. To turn off any calibrations just click on the "TD Grid lines off".

To be or not to be a TD?

Note: In order to have your marks/hangs adjusted to the ASF factors they must have an "X" in the "TD" column in the "Mark Search & Edit" list. If a mark/hang isn't moving when ASF is on then find the mark in the "Mark Search and Edit" list and click the square of the TD column (You can find the "Mark Search and Edit" list in the "Mark" menu then select "Mark Search and Edit").

Prefer my cal.

When ASF is turned on you will see this "Prefer my cal." check box appear. When it is checked the program will ask for a range in miles. Then when one of your calibration points gets within this range, the program will switch ASF off and use your calibration the switch ASF back on when you are out of range.

Auto compensate ASF (using your TD calibrations)

When ASF is turned on you will see "Auto comp.ASF" check box appear. With this check box checked the program will find the closest calibration point and use the closest ASF point to that calibration point to calculate a second offset using the difference between these two sets of offset values. This offset will be applied to all ASF calibration points therefore nudging them all to adjust to that calibration point. This should be the best way to run ASF if you have a good set of previous calibration points as.

If you turn on WindPlot's "SIDEBAR" you can monitor the amount of Lat/Long offsets are added to your hangs. To turn it on click on WindPlot's "Window" menu and select "Split Screen" and check the "Show sidebar" check box. test

Calibration points

TD's are not by any means perfect unless you just want to go back to the same spot WITH THE SAME LORAN that made the TD's. There are errors introduced as soon as you transfer them to another machine or try to use the Lat./Long. that is created by the TD's as far as 9 miles in some cases. **There are thousands calibration points** to make sure the TD's lines are where they are suppose to be. The TD overlays you see on NOAA charts are corrected using what is called ASF's, so they are **NOT** usually desirable to use as a reference when calibrating. The best way to calibrate a TD grid is to match an onboard Loran-C with the TD position readout of WindPlot. This is done quite easily, entering in the Loran-C position when WindPlot's position does not agree. WindPlot then places the proper amount of compensation. **TD Grid lines, cursor, present position and marks that are set using TD's will be all adjusted to the calibration points. Regular marks made without entering TD's and tracks will remain unaffected.** As you enter calibration points, TD grid lines will move accordingly, as will any mark made using the TD to Lat/Long converter. For your information, when you enter a TD into WindPlot, the program converts the TD to Lat/Long. This is because Lat/Long is used to display the position of the TD on the screen, not the TD itself. It then stores the TD numbers you entered into the marks description for your reference (unless you are using the Lind Draw function). The program thus determines a mark as a TD whenever it sees the first TD in the marks description or if the column in the *Mark Search & Edit* list is "X'd". If you do not want a mark to be adjusted, just un-"X" then TD column in the Mark Search & Edit. Also, never put a number larger than 900 in the first part of a description or it will be adjusted to the calibration point as well when updating the TD's in the list using the *Update TD's* button. If you have the present position or cursor set to display TD's, then they will also be adjusted using the nearest calibration point. Any mark made by the program, like by pressing **F7**, will not be adjusted. None of the tracks are adjusted either.

Changing the GRI and/or TD slaves for a calibration point

You can change the GRI or slaves for any TD calibration point at any time.

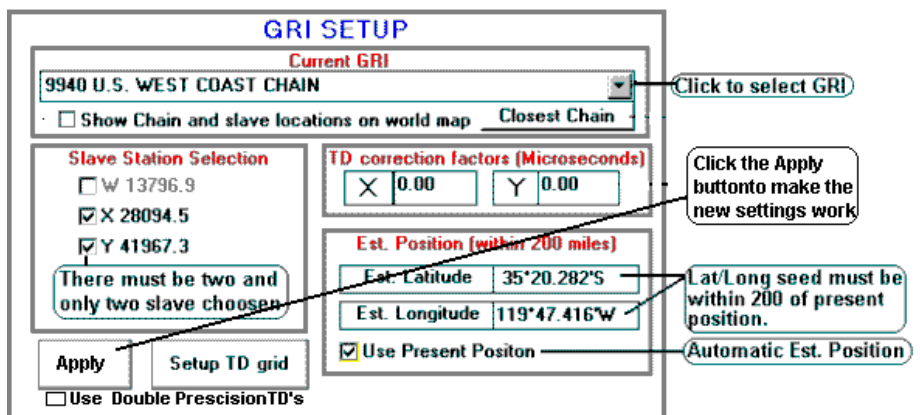
1 WindPlot will only change calibration point that is closest to either the vessel or cursor. So first, position the vessel or the cursor in the area where the calibration point is you want to change.

2 Press **Ctrl-A** or click on *Options* ' *Conv. TD to LL* to call the TD conversion box.

3 Click on *Set GRI* button, you will get the window shown here to the right.

4 Select the GRI and Slaves you desire.

5 Click on the *Apply* button then click the *Exit*.



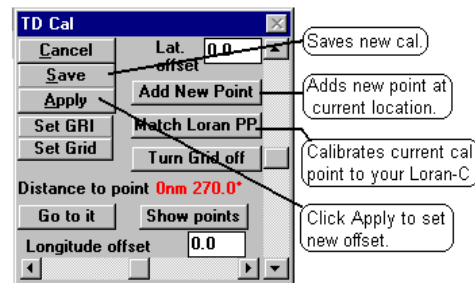
When the screen redraws, the TD lines for new GRI/Slaves should appear if they are turned on. **DO NOT FORGET TO CLICK THE *APPLY* BUTTON OR YOUR CHANGES WILL NOT BE MADE.**

Entering a new calibration point (when ASF is off only)

You can have many calibration points, and depending on the terrain, you may need to have them within a mile from each other or as far as 50 miles in order to maintain accuracy. It is easy to enter in a new point.

To enter a new point:

- 1 First, position the vessel in the area where the new calibration point will be. Be sure WindPlot's is set to display present position in TD's and TD grid is on. Use *Dead Reckoning* to set the ship in a different position if necessary. Just be sure to turn it back off when as you continue your plotting.
- 2 Press **Ctrl-G** or click on *Options* ' *Calibrate TD grid* to call the TD calibration box shown here to the right.
- 3 Click *Add New Point*. The program will warn you it will use the current GRI and Slave settings.
- 4 You will be asked now if you want to calibrate the new point to a known Loran-C position. **If you need to change the GRI or Slaves**, do so now by clicking on *Cancel* and click on the *Set GRI* button. Otherwise click on *OK* and enter in the first TD reading from your Loran-C position readout and press *Enter*.
- 5 Enter in the second TD reading and press *Enter*.
- 6 If your known position match WindPlot's position readout then click on *Yes* and you are done.



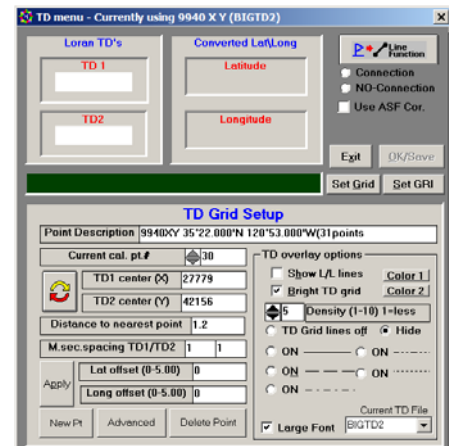
Changing an existing calibration point

Any changes to the calibrations points' description, line spacing, density, color, type of line, GRI and SLAVES are automatically put to the current grid file when in the auto-grid mode as soon as you click on *Apply* in the *Convert TD to Lat/Log* box. You cannot however, change the reference point of any of the auto grid files. The only way to do that would be to delete the current file and start a new one **without exiting the grid setup**.

- 1 First, position the vessel in the area where the new calibration point will be. Be sure WindPlot's is set to display present position in TD's and TD grid is on.
- 2 Press **Ctrl-G** or click on *Options* ' *Calibrate TD grid* to call the TD calibration box shown here to the right.
- 3 Click the *Match Loran PP* button.
- 5 Enter in the first TD reading from your Loran-C position readout and press *Enter*.
- 6 Enter in the second TD reading and press *Enter*.
- 7 If your Loran-C position matches WindPlot's position readout then click on *Yes* and you are done.

Further TD setup using SET GRID

Select *Options* ' *Conv. TD's to LL* then click the *Set Grid* button. This brings up the window shown here on the right. From there you can change some parameters of the TD grid display such a line spacing, line style, density and color. It shows the current calibration point that is being used. The current offsets,

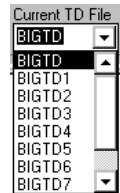


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GRI and slaves. It also shows how many total calibration points exists in the BIGTD file that is currently being used. You can use it switch to another BIGTD file. There are 10 total BIGTD files. The multiple files allow you to have different GRI/SLAVE combinations or just to help manage your points. You can also use it to review any of the other calibration points or create a new point all together.

Multiple TD calibration files

If you are using different combinations of slaves and/or GRI's to do your TD calculations for the same area, it is best to keep the same GRI Slave pairs in the same file using a multiple-file system. Once they are setup, just call the different BIGTD files from BIGTD1 to BIGTD9 to switch between the different slaves. The slaves will change as soon as you call the BIGTD file. You then calibrate or convert your TD's and all calibrations are kept to that file, not disturbing the other files. The "T" key will then toggle between BIGTD and BIGTD1 with just one keystroke.



Switching BIGTD files:

- 1 Call up the TD calibration window by pressing **Ctrl-A**, then click the *Set Grid* button.
- 2 Click the down arrow at the bottom-right and select one of the BIGTD# files.

Toggling BIGTD files (the T key):

Pressing the **T** key on the computer keyboard will automatically change the TD grid between BIGTD and BIGTD1 files. Cursor must be off and TD grid must be on and set to AUTO.

Turning the TD grid on or off

- 1 Press **Ctrl-A** or click on *Options* ' *Conv. TD to LL* to call the TD conv box.
- 2 Click on *Set Grid*.
- 3 Click the *TD Grid lines off* check box. TD Grid lines off Hide

or

Click the *Hide* button if you wish just to hid the grid lines but still leave the calibrations on.

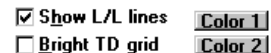
- 4 Click the *Exit* button.

NOTE: Turning the TD grid off also turns off any calibration offsets that are applied to marks made using TD's, present and cursor position TD readouts.

Changing TD grid color

You can change the color of the lines between **bright or normal**.

- 1 Press **Ctrl-A** or click on *Options* ' *Conv. TD to LL* to call the TD conv box.
- 2 Click on *Set Grid*.
- 3 In the *Grid Setting* window, click the *Bright TD Grid* to change line brightness.



You can **manually** change colors as well. When you select your own set of colors the *Bright TD Grid* check box will be disabled.

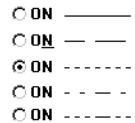
- 1 Press **Ctrl-A** or click on *Options* ' *Conv. TD to LL* to call the TD conversion box.
- 2 Click on *Set Grid*.

Adjustments Menu, Long Menu Features

- 3 In the *TD Grid Setup* window, click on the *Color 1* button.
- 4 Click on the color you desire then click Ok.
- 5 Repeat this for *Color 2* button. Colors are applied automatically no need to press the *Apply* button.

Changing TD grid line style (dashes/dots...)

You have four choices of type of lines with dashes and dots. An example of each is provided as shown here on to the right. The dot indicates the current line setting.

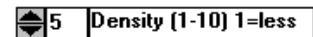


Changing TD grid line spacing and density

You can change the line spacing in microseconds. It is recommended to set the plotter on the range you will most likely be working in and change the grid spacing to suit you at that range. But before you do any changes, you should also turn off the density control. The density control will eliminate lines as you zoom out from your working range thus keeping the line clutter down to a desired level.

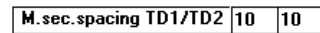
To change the TD grid density:

- 1 Press **Ctrl-A** or click on *Options* ' Conv. TD to LL to call the TD conv box.
- 2 Click on *Set Grid*.
- 3 In the *TD Grid Setup* window, click on the up/down arrows to change the density number from 1 to 10 (set it to 10 to turn off density control).
- 4 Click the *Apply* button to have changes take effect.



To change the TD grid line spacing:

- 1 Press **Ctrl-A** or click on *Options* ' Conv. TD to LL to call the TD conv box.
- 2 Click on *Set Grid*.
- 3 Click on the white area next to *M. sec. spacing* and enter the desired line spacing in Loran microseconds for each TD/Slave.
- 4 Click the *Apply* button, exit the setup and see if the spacing was correct. Repeat if necessary.

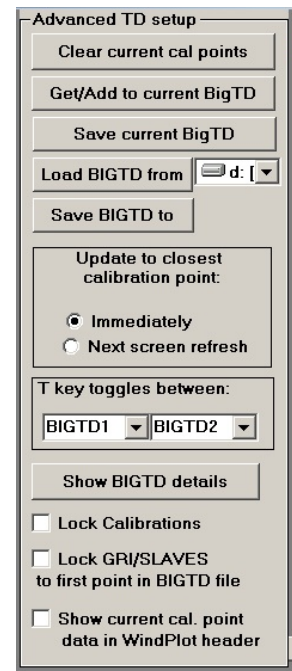


Larger TD Line Printing

When the TD grid lines are drawn, the TD value of each line is printed near the edges of the screen. You can make the printing larger by checking the **Large Font** check box in the TD grid setup window.

Advanced Button

Click this button and another panel opens up in the TD converter window. The advanced panel allows you to clear or save your calibration files to and from another dirve/disk for backup. It lets you change whether WindPlot checks if a new calibration point is close when the screen redraws or every minute. In some cases checking every minute may cause the screen to redraw every time it checks. It also allows you to see all calibration points for any BIGTD file in a list all at once. And it allows you to change which BIGTD files are toggled when pressing the "T" key on the computer keyboard. You can also lock all



calibration points to keep from accidentally changing a good calibration point. It will still allow you to calibrate a new point though. It can also lock all GRI and SLAVE settings for all BIGTD files. This is handy if you are setting each BIGTD file with it's own unique GRI/SLAVE pair. When GRI's are locked, WindPlot looks only at the first calibration point for the GRI and Slaves it is to use. Lastly, it allows you to monitor the calibration file WindPlot is using in the WindPlot title bar.

Clear all Cal. Points Button

This is the first button on the top of the advanced panel. Use this button with care. It will remove all but the first point of the calibration points from the currently loaded BIGTD file.

Get/Add to current BigTD file Button

This is the second button down on the advanced panel. This button is used to get TD calibration points from another drive like a memory stick.

Just place a drive with a BIGTD file from a previous save before starting WindPlot. Click the *Get/Add current BigTD file* button. You have the choice of searching for BigTD files automatically or manually. **Searching and adding BigTD files Automatically:** In this case you would answer "Yes" to the question above. The the P-Sea file Search window will appear. Setup how you want to find the file, ALL DRIVE or set the drive then click on *Search Now* to start searching. In a moment a list of all BIGTD files will appear, just click on the one you want to add and click on *OPEN*.

It will then tell you how many points it will add. If you click on *NO* that you do not want to add them to the selected BIGTD file number then it will ask you if you want to replace the existing file. This will only replace the BIGTD file listed in the Current TD file drop down box. You will need to change the Current TD file if you want to save to a different BIGTD file.

Manually adding BigTD file is basically all the same as above, follow the same steps except you click "No" when asked to do automatically. You are taken to the Windows Explorer window and then you navigate to where the BigTD file is, click on it and click *Open*.

Save Current BigTD

Saves current BIGTD file to a drive overwriting the file, if any that is on the drive. This file is listed on the TD Grid Setup Window. You must first set the drive letter to the correct drive.

Load BIGTD from

This will get ALL BIGTD files that are on the drive and copy them to the WindPlot directory (usually PC-PLOTT) erasing any files that it finds are already there.

Save ALL BIGTDs to

This will copy all BIGTD files to the floppy that have any calibrations at all to the drive letter set and erase any that are already on the other drive.

Calibration Update Option

Usually you should leave this option on one of the two available options,

Update to closest calibration point:
<input checked="" type="radio"/> Immediately
<input type="radio"/> Next screen refresh

Adjustments Menu, Long Menu Features

UPDATE IMMEDIATELY. The only time you would check the other option is that you are so close to the change over from one calibration to the next that the screen keeps redrawing.

“T” Key Toggles Between

This box changes which BigTD files are used in conjunction with the computer keyboards “T” key when toggling between different files.

Menu path: Options>Conv TD's to LL

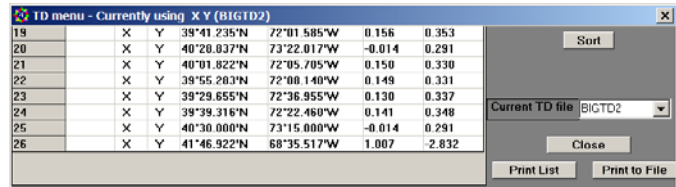
Click: **Set Grid** Then click: **Advanced**



Then click down-arrows and click a new BIGTD file

Show BIGTD Details Button

Clicking this button to open a new window that list the details of all calibration points in the current BIGTD file. This window will cover over the TD GRID SETUP and CONVERSION window. It provides a drop-down box that lists all BIGTD files that have calibration points in them. Just click the down arrow and select a new BIGTD file to view. If any of the files just do not fit or look right, **click** on any them in this window **to delete it or right-click to move it** to another BigTD file.



Calibration Lock Check Box

When this is checked (°), WindPlot will not allow you to change any of the current calibration points but you can still add and calibrate new ones.

Lock Calibrations

GRI/SLAVE Lock Check Box

If you are going to keep each BigTD file with all the same GRI and Slave pairs through out the entire file then check this box. When checked (°), the program will not allow you to change the GRI or Slaves of a BIGTD file.

Lock GRI/SLAVES to first point in BIGTD file

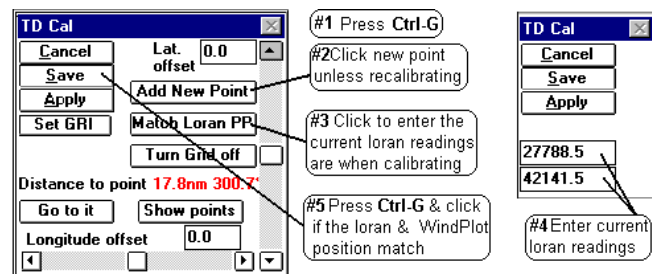
Show current calibration data in WindPlot title bar

When this option is checked (°), the program will provide up to date information about the current calibration point and grid setup in the WindPlot title bar. It also will provide information about the next closest calibration point. This option will reset it self when the program is restarted. Note that Windows Vista sometimes will fail after a period of time when using the title bar for this purpose.

Show current cal. point data in WindPlot header

Options ' Calibrate TD Grid

Click on this item to call the TD calibrator box. If you have ASF turned on then you will not see the box to the right so un-check the ASF box. Then you will see this box appear after each change you make to the grid (or press **Ctrl-G** anytime in the plotter mode). If the TD grid is not turned on or present position isn't set to TD's, they will turn them on for you before showing the calibration box. It allows you to calibrate the present TD grid file. Normally, you should click the *Match Loran PP* button to calibrate



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TD's using a known good Loran-C position but if one is not available, matching to your chart is a good idea, although it is not perfect. In this case, click the up/down arrows to change the Latitude and the right/left arrows to change the Longitude correction factors. The changes are very small, so you may need to hold the mouse down for a period of time to see any changes. The maximum offset is 20 miles. The grid itself will not change until you click on the *Apply* button or enter a Loran calibration, then you will see the screen redraw to the new settings. If you click the *Cancel*, the changes are not saved and it will redraw to the old offsets. Click on *Save* to make the offsets permanent.

Note: TD's are not consistently off by the same amount. Do not completely trust you gear to any Loran reading until you have been able to verify the accuracy.

Offset values can be punched in the text boxes provided if you wish to manually enter them. Also, you can add a new calibration point and see how far the closest calibration point is. Click the *Go to it* button and the cursor will be turned on (if not already on) and the plotter will redraw with the calibration point in the center. Click the *Show Points* button and a dot will appear where the calibration point is and it will also show where each ASF calibration point is if you have that option. Place the cursor over any one of these points to change or delete it. The best way to calibrate the TD grid is to click the *Match Loran PP* button to have the program closely match your Loran's readout. Click the *Turn grid off* and the screen will redraw without the grid showing.

NOTE: TD CALIBRATION ONLY WORKS WHILE GRID IS ON! Marks made by TD's are returned to their original location when you turn off the grid. Tracks are never affected.

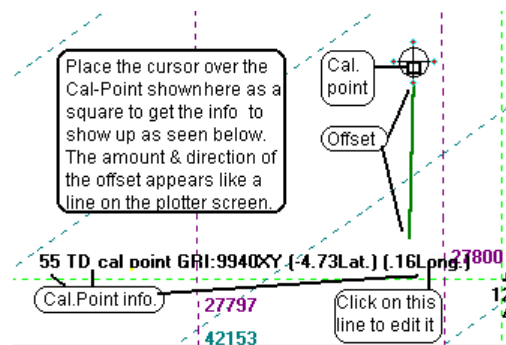
Key points to remember while using TD's

- 1 You will need to make more than one calibration point to be totally accurate. **Do not keep recalibrating the same point.** Use the *Show Points* button to see if you made a new calibration point at the vessel's location.
- 2 ALWAYS confirm your calibrations with a known reference point or use the *Match Loran* method if at all possible. Don't trust a converted TD until doing so or you may loose your gear. Especially if the Loran reading is from a different Loran than what is running the plotter. As long as your known Loran TD position matches WindPlot's TD readout, the TD hangs should be accurate. **However, if any microsecond TD offset was applied when the TD hangs were converted by WindPlot, the location of the hangs will be incorrect when using this calibration procedure..**

Loran calibration procedure see chapter 4.

Editing calibration points:

By clicking on the *Show Points* button in the Loran Calibrator (**Ctrl-G**), you can visually see each calibration point as a box symbol, colored differently for each set of chain/slave combinations and the offsets for each depicted as a line. By placing the cursor over any one of the boxes, you can see what the chain, slaves and actual Latitude/Longitude offsets are. Click this same readout to delete or move the calibration to a different file.



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Turning the calibration point screen editor On or Off

- 1 Press **Ctrl-G** to call the calibration box.
- 2 Click the *Show Points* button to turn the editor on
(Or *Hide points* to turn off.)

The screen will redraw with boxes representing the calibration spots with white lines drawn out to zero compensation. Each box will be the same color if the GRI and Slaves are the same. Changing ranges will change box colors as more calibration points appear. It is best to do this with a black background so you can see them better.

If you have ASF option and it is turned on and you had *Show Points* checked before turning ASF on then you will two lines coming from the calibration points. One line points to where the calibration point will move the point and the other is where the ASF thinks it should go.

Reading individual calibration point data

Turn on the cursor and place it over any calibration point. The calibration number, GRI, slave and offsets will display in the lower, middle of the screen.

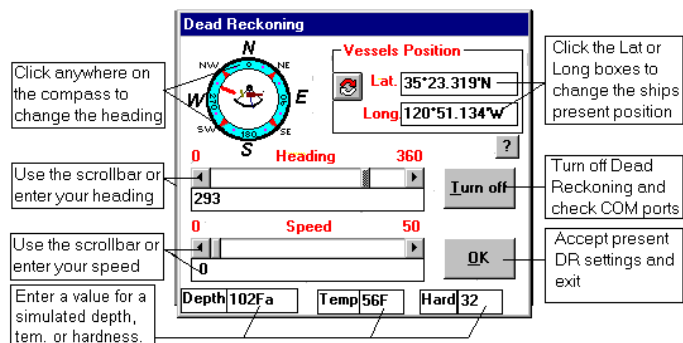
Moving or deleting a calibration point

Place the cursor on the calibration point to delete and click on its data display that appears in the mid-lower portion of the screen and click. Click on *Yes* to delete it, click on *No* to move it to another BIGTD file. If you decide to move it, you will be asked what file name to move it to. The file names allowed are BIGTD.DAT, BIGTD1.DAT, BIGTD2.DAT...BIGTD9.DAT.

Options ' Dead Reckon

Clicking on *Dead Reckoning* in the *Options* menu will call the *Dead Reckoning* dialog box.

Use the scroll bars to set speed and heading. If you want to reset the starting position, click on the *Lat.* box, use the **Del** or **Backspace** key to delete the present Latitude position, and use the keyboard to type in the desired value of Latitude. Press **Enter**. Then click on the *Long.* box, use the **Del** or **Backspace** key to delete what is there, and use the keyboard to type in the desired value of Longitude. Press **Enter**. Click on the **OK** button or press **Enter** to confirm settings.



Dead Reckoning will engage automatically in the event that the program loses the position information from the GPS or Loran. This will keep you on the last speed and course before losing signal. You can also use it to set a speed a course for practice using the program while the vessel remains at the dock. While in the DR mode, you can alter course and speed without call the DR box again. To change speed press the + button to go faster and the - button to go slower. You should see the vessels speed change in the upper-right as you hold either key down. Use the **PgUp** and **PgDn** to alter vessel heading and again, you should see the heading change as you hold either button down. These buttons control the charts and plot range when not in DR mode.

NOTE: The program will continue to output position, speed and heading data even when in Dead Reckoning mode.

Options ' RADARpc overlay

Requires the purchase of a access code and RADARpc. **SEE Chapter 5.**

Options ' P-Sea FishFinder

Requires the purchase of a access code and Koden Black Box. **SEE Chapter 8.**

Options ' Set A-B Tack Line

Clicking on the tenth item in the *Options* menu, *Set A-B Tack Line*, will allow you to set up a reference line where you set the ends using the cursor. The first end set is labeled A and the other B. When you first call this function, the cursor is brought up on the screen. Place this cursor on one end of the line you want to draw and double click the left mouse button. An *A* will appear at this position. Now place the cursor on the other end of the desired line and double click the mouse. A *B* will appear at this point and a light blue A-B line will be drawn between the points.

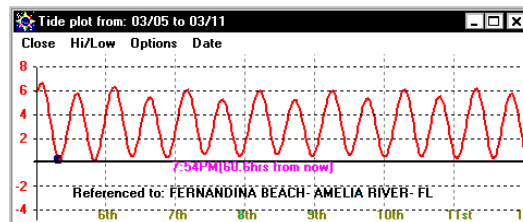
If you need to take the cursor outside the area shown on the screen, drag it in the direction of the desired point to the edge of the screen and release the mouse button. This is called panning. The screen will be redrawn with the cursor near its center. The panning process can be repeated until the desired position is on the screen.

The A-B line is used when you want to follow a line between two points. While activated, the range and bearing to one end of the line are shown at the bottom-middle of the screen. The "*A*" end of the line is green and if you are heading toward the "*A*" end, it will display the range and bearing in green at the bottom-center of the screen. The "*B*" end of the A-B line is red and the range & bearing readout will be red when heading toward this end.

Options ' Tide Forecaster

(If using Navionics or C-Map charts see charting section as they have their own Tide program)

Click this category to call a tide forecaster window. The forecaster first locates the tidal information from a database of over 300 major ports around the US (it includes a few foreign ports). The name of the closest port will appear in the header of the Hi/Lo tide window. You have a choice of the Hi/Lo prediction for a week or a plot of the tides. The plot of the tides can be set to display a full week or an individual day. In the full week mode, the time at the mouse arrow is displayed for any level of tide when the mouse arrow is placed on the tide curve. You can change the date to forecast any time period you wish, with default being the present day forward. The plot will also show the current tide level when the present day is selected. Dragging any one of its edges can change the size of the window.



FERNANDINA BEACH- AMELIA RIVER- FL-Highs and Lows(Feet)											
Year	Mo.	Day	DDW	Time	Height	Time	Height	Time	Height	Time	Height
2002	03	05	TUE	0132	06.62	0739	00.21	1346	05.75	1946	00.13
2002	03	06	WEN	0232	06.30	0841	00.50	1444	05.42	2047	00.38
2002	03	07	THR	0335	06.06	0943	00.65	1546	05.23	2147	00.51
2002	03	08	FRI	0440	05.96	1041	00.69	1648	05.21	2246	00.53
2002	03	09	SAT	0538	05.98	1136	00.63	1745	05.33	2341	00.46
2002	03	10	SUN	0630	06.06	1225	00.50	1836	05.51		
2002	03	11	MON	0032	00.33	0715	06.16	1310	00.34	1921	05.72

Adjustments Menu, Long Menu Features

Selecting Plot or HiLo forecasting: When the HiLo prediction is showing, click on *Plot* to activate the plot display. When the Plot is showing, click on *HiLo* to activate its display.

Selecting Day or Week plot prediction: Click on *Plot* if not already on. Click on *Options* in the tide window menu bar. Click on either *Day* or *Week*.

Calibrate with time offsets: Tide time maybe be off in certain places like when bays change from storms or the fact the nearest tide station is some distance away then you can compensate some for this by adding a time offset. To do so you need to note the difference in from when the Tide Forecaster predicts the high tide and when it actually happens and enter this value in a box that appears when you click on the “*Options*” menu in the tide forecaster window and select “*Calibrate w/offsets*”.

Changing to and from Daylight savings: You must set daylight savings time if your area demands it. Click on *Options* in the tide window menu bar. Click on *Daylight savings*. A check mark indicates that daylight savings is activated.

Changing the Start date: Click on *Date* in the tide window menu bar. Click on *Select Date*. Type in new date as required following the format (YYYY/MM/DD) and press enter.
i.e.: 1996/03/29

Changing Tide Predictor Station

- 1 If the tide box not showing, click on *Options* ' *Tide Forecaster*.
- 2 In the Tide Predictor box, click on *Options* ' *Station Locations* ' *Select Tide Stations*.
- 3 A box will appear with a list of all the tide stations in alphabetical order.
- 4 Use the scroll bar and just click on the one you desire.

Click on *Automatic Selection* instead of *Select Tide Stations* to have the predictor find the nearest tide station automatically.

Cursor Displays Time at point of cursor on tide plot

You can predict a future tide event using the tide plot and the mouse cursor. Simply place the tip of the cursor were you want to find the time and the printout at the bottom of the plot will display the time and hours to that point from now.

Options ' Routes/Waypoints

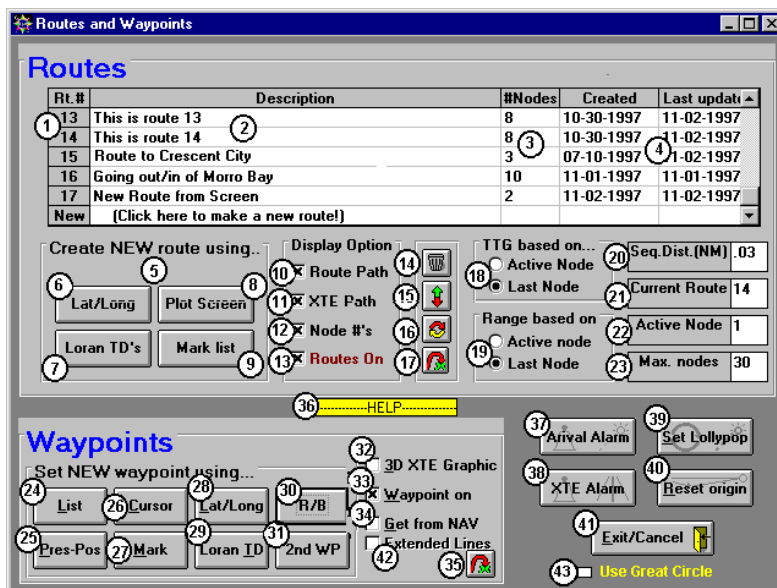
Click this menu to call a window that will allow you many options for setting, making, clearing routes and waypoints. Waypoints provide a quick way to get navigation information to a single destination. From this you get range, bearing, cross-track error and estimated time to go under current conditions. Routes provide a way of lining up a series of waypoints for auto-sequencing. This means a path can be setup up to allow you to go around objects such as islands, channels and so on. As you follow this path, you are directed (in order) to each point in the path called NODES. The route navigation information is provided in the same manner as any waypoint. As you get close to the current active node, the program will automatically switch to the next node in the path. A single beep from the alarm will sound when this happens and the alarm will stay on when you get to the last node in the route.

NOTE: The number in the brackets () refer to the circled numbers on the previous figure of the *Waypoint and Route* window.

(1) Route list box

This box contains a list of all available routes. The list contains, from left to right, (1) the route number, (2) the route description, (3) the total nodes (waypoints) in the route and (4) the date made and last update. Routes are stored in the plotter main directory and the files are named RTE1.DAT, RTE2.DAT and so on. The number after the RTE corresponds directly with number in the list.

Click on the route to change the name and make the nodes appear. From there you can edit the routes.



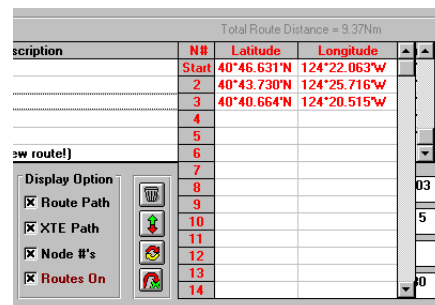
(2) Enter or change a route name

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click on the route number you want to change.
- 3 Use the backspace key to erase what is there if necessary and then begin to type in the new route name.
- 4 Either click the *Exit* button or click on another route.
- 5 You will be asked if you would like to save the changes, click on *Yes*.

Add or change a node

The node list will appear anytime a route name is clicked. Nodes can be added, modified or deleted from the list. Use the backspace key to erase any characters if necessary. Do not try to put in the degree and minute symbols. Use only digits and decimals when entering in values. Finish each entry with either the hemisphere (NSEW) or with the enter key. The degree and minute symbols will then be added automatically.


- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click on the number of the route in the upper section of the window (use the scroll bar if necessary to display the route number you want to change).
- 3 If you want to enter TD's, click the button with the red and yellow arrows on it (16).
- 4 Click on the node you want to change. Use the backspace key to erase the old value if necessary. Enter in the new value and press **Enter** or enter in the hemisphere designator (N,S,E or W).



Adjustments Menu, Long Menu Features

- 5 Either click the *Exit* button or click on another route. You will be asked if you would like to save the changes, click on *Yes*.

Create a route using Lat/Long entry(6) or Loran TD entry(7)

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click on *New* in the last row of the route list in the upper section of the window.
- 3 If you want to enter TD's, click the button with the red and yellow arrows on it. 
- 4 Enter in the Lat. or the first TD in the node list that appears to the right of the route names and press **Enter**.
- 5 Enter in the Long. or the second TD and press **Enter**.
- 6 Repeat for the rest of the nodes.
- 7 Either click the *Exit* button or start another new route. You will be asked if you would like to save the changes, click on *Yes*.

(8) Create a route using cursor on plot screen

This is the easiest way to enter a route. Each time you click the mouse a node will appear. You can use the charts to plan a route with this method.

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click on the button Plot screen in the upper-left section of the window.
- 3 Click on *OK* and you are taken to the plot screen with the cursor on.
- 4 Drag the cursor to the first node and double-click the mouse.
- 5 A line will follow from the mouse arrow. Place the mouse arrow on the next node and double click again.

Repeat as many times as needed. To delete a node while still in the create mode, place the mouse arrow on any node and click the right mouse button.

- 6 Press the **Esc** key or click the *Stop changes* button when finished making the route.

(9) Create a route using Mark Search & Edit list

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click on the button labeled *Mark list* in the upper-left section of the window.
- 4 The *Mark Search & Edit* list will appear.
- 5 Click on *OK* and use the search to find the first mark and click on the mark number in the first column.
- 5 Repeat the search and click for all nodes then click the *Exit* button when finished.

(10-13) Turn on/off route or change route display modes

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Find the *Display Options* section located in the upper middle section of the window and check or uncheck the boxes to turn the appropriate functions on or off by clicking on them.

A line is drawn between each node when *Route path* is checked (°). A broad line representing the XTE

path will show over the route path if the *XTE Path* box is checked (°) (this will only appear on some ranges). The node number will appear in the route path if the *Node #'s* box is checked (°) and nothing will appear if the *Routes On* box is not checked (°).

(14) Delete a route


- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Double-click on number of the route in the upper section of the window of the route you want to delete. (Use the scroll bar if necessary to display the route)
- 3 Click on *Yes* when it asks you if you want delete the selected route.

(14) Delete a node in a route

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click on number of the route in the upper section of the window (use the scroll bar if necessary to display the route number you want).
- 3 Double-click the node you want to delete and click on *Yes* to complete the operation.

(15) Reverse route direction

The node that is listed first is the start of the route. When a route is first activated, this starting node will get the waypoint lollypop on it first. The range and bearing and other pertinent navigation information is also displayed to this node. At the end of your trip you can use the same list to make a return path by just reversing the order using the following method. Then the last node becomes the first and you can return back the way you came.

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click on number of the route in the upper section of the window (use the scroll bar if necessary to display the route number you want to change).
- 3 Click the Red/Green arrow button to reverse the node order. 
- 4 Either click the *Exit* button or click on another route. You will be asked if you would like to save the changes, click on *Yes*.

(17) Zoom and display route on plotter screen

You can zoom to any node in any route in the list by clicking on the jump button (17). First you must at least click on the name of the route you want to jump to. At that point you are zoomed to the first node if you click the jump button. If you want to a certain node, click on the number of the node before clicking the jump button (17).

(18) Display TTG to active or last node

The time to go at present speed can be referenced to either the active node (the one you are presently heading for) or for the entire route (the last node). The TTG is displayed at the bottom -right of the plotter screen and the ETA in the title bar of the WindPlot window.

To change the TTG destination reference, simply click on the option you want, *Active Node* or *Last Node* for the entire route in the *TTG based on* box of the route/waypoint menu.

(19) Display range based on active or last node

Calculates the range by either the node you are heading for (active node) or the entire route (the last node).

To change, simply click on the option you want, *Active Node* or *Last Node* for the entire route.

(20) Setting sequencing distance

As you get closer to a node, at some point you want it to switch to the next node automatically. The distance at which this switches is called the sequencing distance. In harbors you are going to want this distance to be fairly small, .03 to .01 nautical miles. Of course, using this in harbors is fairly dangerous and not suggested except as a guide. Out at sea where you have much more room to maneuver, it may be best to set it to a much larger distance of .3 or more so you do not miss your turn.

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click the white area where it says *Seq. Dist.*
- 3 Enter in a value you want

(21) Current Route display

When you click on one of the routes in the list it becomes the CURRENT ROUTE. When you exit the *Routes/Waypoints* window, this will be the route shown. You can also change the current route by entering a route number in this box.

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click the white area where it says *Current Route*.
- 3 Enter in the route number you want.

(22) Active Node Display

The active node is the node you are (or should be) currently heading for. The first node, #1, is automatically selected when a route is first started. This node you are heading for is called the active node. As you go down the routes path it should switch automatically. If for some reason you miss your turn and it does not sequence or you want to start somewhere in the middle of a route then just change this number to the next closest node in the route.

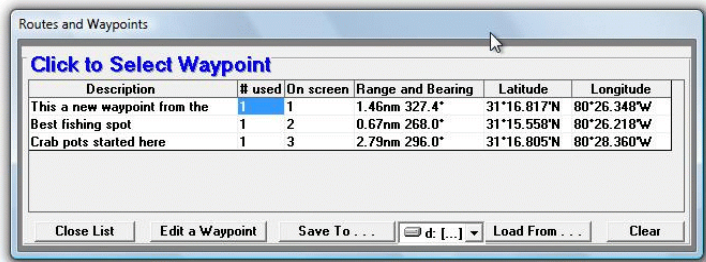
- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click on the white box where it says *Active Node*.
- 3 Enter the number of the active node you desire. It must be between 1 and the number of the last node in your route.

(23) Change maximum nodes, seq. dist., active route or node

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click the white box next to *Max. Nodes* and enter in the maximum number of nodes you desire.

(24) Sea a waypoint from the Waypoint List

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 In the lower section, click the *List* button.
- 3 Click on the waypoint you want and the plotter screen will zoom to that point with that waypoint as a active waypoint.



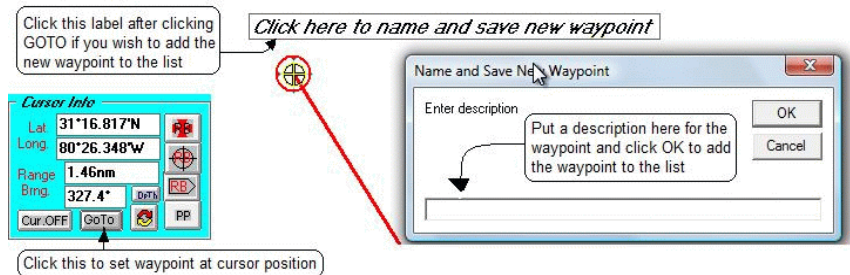
Waypoints are now separate from Marks

Many have expressed their interest in a Waypoint list that is separate from the marks so we have done this. Now, each time you make a Waypoint, no matter how you make it, you CAN add it to a Waypoint list. Simply make a new Waypoint the way you usually do then click on the screen when you see the screen say “Click to make this a Waypoint.”



<-- A new button has been also added to the bottom of the toolbar that allows you to quickly select a Waypoint from the new Waypoint list. When a Waypoint is active, it will turn the Waypoints off completely. Click this button when it says “NEW” to call the Waypoint list. Then just click on one of the Waypoints to quickly set it as the new Waypoint.

To create a new Waypoint using WindPlot’s Cursor. Turn the cursor on and place the cursor on the Waypoint destination (place you want to go to) and click the “GO TO” button on the *Cursor Info* box to set the Waypoint. Then if you want to save this to the new Waypoint list to be called back up at some other time. Waypoints can be created from the mark list and from the Routes/Waypoint menu using Lat/Long or TD’s.



Waypoints can be created from the mark list and from the Routes/Waypoint menu using Lat/Long or TD’s.

The Waypoint list can also be called up from the *Routes/Waypoints* menu found in the WindPlot *Options* menu by clicking on button labeled *List*. The list can then be used to select a new Waypoint by simply clicking on one of them in the list. You can also edit the Waypoints by clicking on *Edit a Waypoint* and then clicking on one of the Waypoints in the list. Edit the description that shows on the list in the top box. Edit what is displayed at the end of the Waypoint in the 2nd box. Change the Lat./Long. position of the Waypoint in the next two boxes. Click the *Save Changes* button if your happy with your changes or click the *Delete a Waypoint* button to permanently eliminate the Waypoint all together.



(25) Create a waypoint using Present Position

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 In the lower section, click the *Pres-Pos.* button.

(26) Create a waypoint using cursor on the plot screen

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 In the lower section, click the *Cursor* button.
- 3 Click on *OK*, place the cursor at the destination and press **Ctrl-W**.
- 4 Press the **Esc** key to remove the cursor.

(27) Create a waypoint using mark on the plot screen

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 In the lower section, click the *Mark* button.
- 3 You are put back on the plot screen, click on *OK*, place the cursor over any mark then wait a second for the mark number to appear in the lower middle of the screen.
- 4 Click the mark number and then click on *Yes* when it asks you if you want to set it as a waypoint.
- 5 Press the **Esc** key to get rid of the cursor.

Create a waypoint using Lat/Long(28) or Loran TD entry(29)

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 In the lower section, click the *Loran TD* or *Lat/Long* button.
- 3 Two boxes will appear in the same area, enter in either the first TD reading or Latitude and press **Enter**.
- 4 Do the same for the second TD reading or the Longitude and press **Enter** again.

(30) Create a waypoint using Range & Bearing

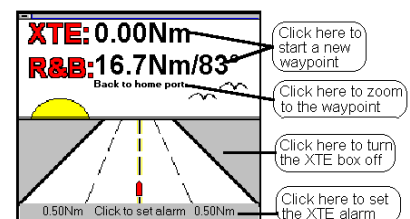
- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 In the lower section, click the *R/B* button.
- 3 Two boxes will appear in the same area, enter in either the range in nautical miles press **Enter**.
- 4 Enter in the bearing in whole degrees and press **Enter** again.

(31) Create a waypoint using Two marks

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Set up the first waypoint using any method you like.
- 3 Then, in the lower section, click the *2nd WP* button.
- 4 Click on *Yes*, use the search to find the mark and click on the mark number in the first column.
- 5 Click on *Yes* again to set it as the 2nd waypoint. This will give the navigation info from the first waypoint you set to the 2nd.

(32) Turn 3-D Cross-Track Error on & off

When the waypoint or route is first set, an imaginary line is drawn between the vessel's location at that time to the destination. Cross-Track Error is the distance the vessel is at any time from this imaginary line.



Chapter 2, Adjustments Menu

The closer you stay to this line as you move towards the waypoint the straighter the course you will make.

The 3D XTE box gives you the cross-track error, range and bearing to the waypoint at the top. Just below that is the on-screen description if one is programmed in it. Next is the 3D XTE highway in which the vessel icon will move right or left to show which direction from the imaginary line the vessel is. The default limits of the track is .5 miles without the alarm set otherwise they become whatever you set the alarm to be. The box is loaded with point and click hot spots as show above. XTE box will not appear when using Great Circle navigation calculations.

The box will tend to move out of the way of the vessel as it plots across the screen. You can move it yourself should you decide to do so by pointing to the "-" symbol in the upper left corner of the box then drag it where you want and release the mouse.

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click the *3D-XTE Graphic* check box. XTE box will show when checked (°).

(33) Turn on/off waypoint display

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click the *Waypoint On* check box. Waypoint function is on when checked (°).

(34) Get waypoint from NAV device

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click the *Get from NAV* check box. Waypoint info will come from the Loran or GPS when this box is checked (°).

(36) Help display line

This line will change to display brief explanation of the item the mouse arrow is over.

(37) Setting the Arrival Alarm

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click the *Arrival Alarm* button (37).
- 3 Use the scroll bar to set the distance in miles for the alarm and click *OK*.

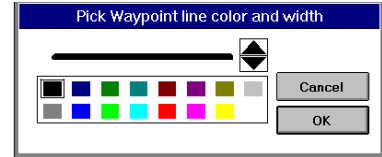
This works for both routes and marks. With routes, it is the same as the Seq. Distance. This is the distance to each node when it will change to the next.

(38) Setting the XTE Alarm

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click the *XTE Alarm* button (38).
- 3 Use the scroll bar to set the distance in miles for the alarm and click *OK*.
This works for both routes and marks.

(39) Set waypoint lollypop Color/Width

The default line that the waypoint function draws is a thin dotted line. The color of the line depends on the background color. This menu item lets you not only assign your own color but you can make it as thick as you want. Just click this category and use the up/down arrows



to change the width and click on any color for the line. When you have the color and width you want, click on Ok to resume plotting. The waypoint line will be drawn in with the new settings.

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click *Set Lollypop* to change the width and color of the line that joins the start and end of a waypoint.
- 3 Click the up and down arrows to set the width and then click the color you want. Click on *OK* when you are satisfied.

Zoom to current waypoint (39) or active node (17)

- 1 Turn on the XTE graphic box if not already on.
- 2 Locate the name of the waypoint or route located just above the sun and click on it to zoom to the waypoint.

OR

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click the button in the lower section with a red arrow and green X on it.

(40) Reset a waypoint/route origin (Reset Waypoint starting point to vessels' position)

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click the *Reset Origin* button the lower right.
- 3 You will be asked if you want to do this automatically, click on "Yes" and each time the screen is refreshed the screen waypoint origin will be reset otherwise it will just reset this one time.

(41) Exit

Click to leave Routes/Waypoint menu and go back to plotter operations

(42) Extended Lines

Waypoint, route and A-B line pathways can be extended beyond their destinations.

- 1 Click on *Options* then on *Routes/Waypoints* in the WindPlot menu bar.
- 2 Click the *Extended Lines* check box to turn on this option.

(43) Great Circle Calculator

You will now find a new option in the Route/Waypoint menu for doing Great Circle calculations for all range and bearing calculations. The only disadvantage to this is that because it is a circle, you will not have XTE calculations when it is turned on (at some time we will put it back in). The advantages are many, first, you will save fuel on long trips since great circle calculation are shorter. Second, you will find you can get a waypoint to any destination on earth, even across the dateline or equator. Great circle is active when this box is checked (°).

Dateline limitations gone when Great Circle is on

Turn on the Great Circle mode as stated above and everything will work at the dateline, including marks and tracks.

3D Window

3D is an option that is not normally included with P-Sea WindPlot. You must install the 3D version of P-Sea WindPlot and purchase a 3D activation code from your local P-Sea Software dealer.

See chapter 9 for more information regarding the 3D option.

Adjustments Menu

Adjustments

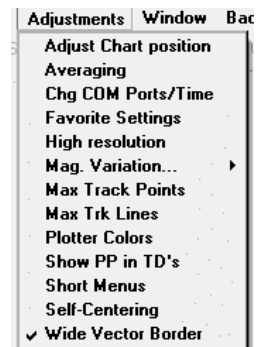
Clicking on *Adjustments* in the plotter menu bar brings down the *Adjustments* menu.

Adjustments ' Adjust Chart Position

This function will adjust all charts, vector and raster, by the same amount. You should always check the type of datum your GPS is using and make sure it matches the charts you are using before adjusting charts. But if you need to, click on the first item in the *Adjustments* menu *Adjust Chart position*, and a dialog box appears to ask you if you want to clear the current offsets. Or if the offsets have already been cleared, a dialog box will appear to ask you if you want to continue to adjust charts. If you respond by clicking on the *Yes* button(s) the cursor will appear. To adjust your charts, place this cursor on a point of land of known position and double click the mouse. Now drag the cursor to the position the known position should be and double click the mouse again. The screen will be redrawn with the new offsets added in. You may repeat this procedure if necessary to get the proper adjustment. For example, the pear where your boat is appears .5 miles to the south of the boat's icon. In this case you would call up this procedure and when the cursor first appears, place it on the pear and double click. Now place the cursor on the vessel's icon and double click again.

The adjustments are saved in the plotter INI file when you exit the program and it will stay there until you adjust the offsets again.

This adjustment does not affect the present position or mark and waypoint data. All range and bearing calculations for these will be unaffected. Only this feature will affect the distance to land and the visual presentation of land and fathom curves. If you want to alter the Lat/Long position of the vessel it must be done through the Loran or GPS.

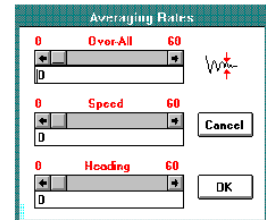


Adjustments Menu, Long Menu Features

Adjustments ' Averaging

Clicking on the second item in the *Adjustments* menu, *Averaging*, calls the *Averaging Rates* dialog box.

Note: You can use this function to make the tracks, vessel speed, and heading reported by the program less erratic. Be cautioned that too much averaging will cause a significant delay in response; so use averaging with caution. The averaging will also be affected by the rate that data is fed to the plotter. If you have control of the output rate then it is best to set the GPS or Loran to output no more than once per five seconds.



The top scroll bar in this dialog box controls the averaging of all data; the middle one controls the averaging of speed; and the bottom controls the averaging of heading information. Current averaging values are shown directly under each scroll bar. Click on the *OK* button when you want to save your adjustments.

Adjustments ' Chg. COM Port/Time

P-Sea WindPlot will look for a GPS signal when you first start it up. If no signal is detected in a few minutes this COM port adjustments window will appear and the program will ask you if you want to scan other COM ports for a GPS signal. If you click on *Yes* to scan for ports then the program will keep looking on all available COM ports for a GPS signal. If you click *No* the COM window will stay on the screen and if you click *Cancel* it will clear the plotter screen.

Chapter 2, Adjustments Menu

Otherwise, clicking on the third item in the *Adjustments* menu, *Change COM Port*, calls the *Adjust COM* window. This COM port I/O controls four COM ports that provides for different baud rates and port numbers from 1 to 255. Built in COM port numbers are between 1 through 4 while USB converters should be higher than 4 and all baud rates are 4800 for standard NMEA input so there will usually be no need to do any changes when adding COM ports. However, new USB serial port replicators are coming out allowing as many COM ports as you want so we have modified the program to allow for these new devices. Also, the program looks at all four ports at the same and thus eliminated the need for the end user to select the second COM port when hooking up multiple ports. Now when device is working properly the data will IMMEDIATELY appear in on of the four view windows. The new COM control window is shown below:

Note: The COM (COMmunications) port is where the program receives and sends the position, heading and speed information from your NAV. receiver. The program may also receive depth and/or temperature information from a depth finder. You can use a optional serial multiplexer to combine the data into the first COM port or use multiple COM ports which requires a special cable that can be supplied with your copy of the program. The first NAV. cable is supplied at no additional cost but a second one is extra. It must have an end that is compatible with the output plug of your NAV. receiver. The serial cable or the multiplexer for the fathometer costs extra. Both types of cable convert RS232 to RS422 as required for computer serial port input.

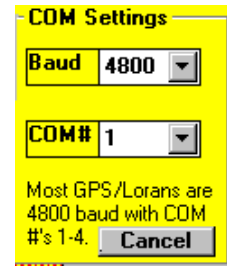
Setting up COM control for input: The data will appear in the view window shown above. If it doesn't, we do not suggest changing Baud rates unless you are sure that it is needed. Usually, the problem in the COM port setup in either the computer's BIOS or Windows Device manager if you are not receiving data. As data is received, lights will flash in the *ACTIVITY* box on the right of the window. The color of the lights will depend on the type of NMEA device (Loran, GPS, radar....). However, it does not hurt anything to change baud rates. When this still fails to bring a signal to the COM port just click the *Reset* button under the *Activity* lights to reset the COM ports back to factory settings.

Window DEVICE MANAGER button

As mentioned above, the Windows Device Manager will show information about the COM port that is used to transfer data from the GPS to the computer. A COM port along with it's associated number must show up on the list in the Device Manager under "**PORTS/COM and LPT**". If you do not see this category listed, then you can not get a position from the GPS. Reinstall the software driver for your USB device will usually fix this problem. If it is listed then click the arrow or "+" in front of it to expand the device listing. With the list expanded, you should see at least one bla...bla COM(#) where the # is the number of the COM port. This number can be between 1 and 255 (Note: just because this number does not always mean the device is working). Look at the four red COM labels in the COM window, if this COM# does not appear in one of the red labels then you will need to click on one of the red COM labels in the *Chg.COM/Time* window and select it from the list as shown next in *Changing Baud and COM prot numbers*.

Changing Baud and COM port numbers: Do not use this unless you are sure

since most all cases, COM port failure is not because of improper baud rate or port number. In some cases where you have control of your GPS baud rate, you can improve the speed of the data flow by increasing both the GPS and WindPlot baud rate. To change baud or COM number just call the *Adjustments* menu, and click on *Change COM ports*. The window above will appear, click on the COM number with the red background. A new box, *COM Settings*, will appear with *BAUD* and *COM#* drop down boxes in it. Click the down arrow next to the setting you want to change and a list will appear. Find the new value for the setting you desire and click. When this still fails to bring a signal to the COM port just click the *Reset* button under the *Activity* lights to reset the COM ports back to factory settings.

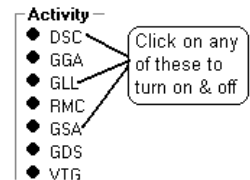


Note : The program will output the following sentences; \$LCGTD, \$ECWPL, \$ECXTE, \$ECGTD, \$ECBWC, \$ECBOD, \$ECMTW, \$ECDDBS, \$ECDBT, \$ECTTM and \$ECAPB and repeats the information; \$**GLL, \$**GGA, \$**VTG and \$**HDM. This allows you to connect to a radar for the waypoint lollypop. Unless you are use the data output, we strongly suggest un-checking the *Master output* check box so that it is not outputting data. Some cases, like when a radar cursor is displayed, all data may not get to the plotter and the cursor may appear frozen.

A *Check for other available ports* button will appear if one of the COM input windows does not have a valid port. The program will scan for all available working COM ports between 1 and 15 when you click this and present a list of what is available for you to choose from.

Activity Light and Disabling Input Data

There is a set of activity lights along the right side of the COM setup window. As data comes in the lights turn off and on. Those that are black have never received any data. Each type of talker puts out a different color as shown in the legend at the bottom of the activity window.



Disabling ports: The only thing you should do when all is setup and working is to disable the COM ports that are not being used incase some other program needs the port. Simply click the check box above the Data View window. When it checked (°), the port is disabled.

Holding/Freezing data

Data that appears in any one of the four green windows may be going too fast for one to read. Notice the *Hold* button next to the *Disable* check box shown above. Place the mouse arrow on one of these buttons and hold down on the left-mouse button. Any data in the window below the Hold button will freeze until you release the mouse button.



Connection Lost Alarm

With this checkbox checked, a visual and audible alarm sounds when data from the GPS is lost for any reason for more than 3 minutes. Data must first be received before the alarm becomes active. Then it will sound if lost and continue to sound until the connection is made again and data starts flowing in the window. This would sound for example if the GPS loses its power or the serial port plug comes loose.

Chapter 2, Adjustments Menu

It will also alarm if the vessel was moving then now is sitting still a NOT MOVING alarm will sound.

Data output is controlled through the *Changing COM port* menu. Just call up the menu (*Adjustments* ' *Change COM Port*) and click the button labeled *Output*. The window will drop down to reveal output settings.

Turning all data output on and off:

Click the *Master Output On* check box at the bottom. When checked (°) the program will output data according to the selections made.

NOTE: Data output should normally be OFF when not needed so as to speed up processor and program time. Select only the data you need at the longest intervals that works OK. Also note that speed and heading will continue to output even in dead-reckoning mode.

Selecting data to output

There are 13 types of data that the program will output. Click on the check boxes to turn them off and on. When set to *ON* (checked), click on the box to the right of the check box and enter in the interval you want the data to be repeated on the output in seconds. When properly setup, you will see a red light next to the interval box each time WindPlot send the output. If you do not see the red light, and there are no warnings, then the port most likely is not functioning. Try another port and see if you get the light. GLL is position data, WPL is waypoint Lat/Long, XTE is cross-track error, VTG is speed and heading, HDM is fluxgate compass and GTD is TD output data. BWC is waypoint range and bearing, BOD is Bearing-origin to destination, MTW is Sea surface temperature, DBS is depth below surface and DBT is depth below transducer.

Data OUTPUT control		
On/Off	Interval	Status
<input checked="" type="checkbox"/>	\$GLL 1	●
<input checked="" type="checkbox"/>	\$WPL 10	No waypoint set
<input type="checkbox"/>	\$XTE Off	No waypoint set
<input checked="" type="checkbox"/>	\$VTG 3	
<input type="checkbox"/>	\$HDM Off	Not receiving HDM
<input type="checkbox"/>	\$GTD Off	Present position not in TD's
<input type="checkbox"/>	\$BWC Off	No waypoint set
<input type="checkbox"/>	\$BOD Off	No waypoint set
<input type="checkbox"/>	\$MTW Off	Temp. not available
<input type="checkbox"/>	\$DBS Off	Surface depth not available
<input type="checkbox"/>	\$DBT Off	Ducer. depth not available
<input type="checkbox"/>	\$TTM Off	No Radar target data
<input type="checkbox"/>	\$ABP Off	No Waypoint Data
<input checked="" type="checkbox"/> Master output On		
OUTPUT to COM# 1		Roll/Pitch

Roll/Pitch (experimental)

P-Sea Software is experimenting with a roll and pitch monitor to predict when the vessel is at the bottom of a swell. This should remove the swell factor when depths are used to build 3D charts. It is not advisable to try this at this time as it requires a special circuit board

Connection to other devices: If you have a fluxgate or gyro compass that puts out a \$HCMDM or \$HCMDT signal, you can connect it through a second serial port to get a more dependable magnetic heading. If you have a fathometer or temperature gauge with \$SDDBT and/or \$YCMTW output, you can get the program to display the depth and/or temperature and have the current track change colors in response to either of these signals. If you have a radar that outputs \$RARDS and \$RATLL then you can get a constant position indication of the radars cursor position and you can make a mark on the plotter when the target button on the radar is pressed. This is used for tracking another vessel. You cannot connect two items to one serial port without a special adaptor. In order to connect to a second COM port, you must obtain another serial cable and you may have to install another serial card or USB serial replicator.

Options Menu, Long Menu Features

Setting up the second (third and fourth) COM port

If you have just added a comport to the computer then you must uncheck the *Disable* check box located above each data input view window or click the *Reset* button at the bottom of the *Activity* window to reset all COM ports. If a COM port is still checked disabled after clicking the *Reset* button, Windows is not letting WindPlot gain access to it. This could mean it is being used by another device or program.



With WindPlot version 7.0 or better, there is no need to set *the* second COM port unless you have changed the COM# to 5 or greater as WindPlot's default is to look at all four (this can be increased to as many as needed by special order). If you hooked up a second COM to your computer and it is not working, then select *Adjustments* from the WindPlot menu bar and then select *Change COM port*. The *COM Adjust* window will appear, in it you will find four horizontal windows that represent the possible COM ports and their configuration. Uncheck the *Disable* check box for the COM port you installed if it is checked. If you do not find your COM# in any of the 4 windows, then click COM# of one of the disabled COM's. A *Change Settings* window will appear, click the down arrow next to the COM# and select the proper COM# from the drop-down list that appears. Leave the Baud rate alone unless you are sure it is different from the normal 4800.

A ***Check for other available ports*** button will appear if one of the COM input windows does not have a valid port. The program will scan for all available working COM ports between 1 and 100 when you click this and present a list of what is available for you to choose from.

Note: Wait a few minutes for the system to acquire the signal before you change things. When everything is connected properly, the depth and/or temperature will appear in the upper right of the plotter screen just under the boat's speed.)

Locking COM ports

WindPlot will normally check COM ports to see if they are functioning properly and shut down those that are not. Sometimes, WindPlot may mistakenly disable one when Windows says the interrupt is busy. Should this happen, a check box is provided at the very bottom-right of the COM port setup window. Check and un-check it by clicking on the box. When checked (°), the COM active COM ports will not deactivate themselves.



Auto GPS Time correction & Manual Computer Time Adjustment

You can use WindPlot to adjust the computers clock. It can be set manually or automatically using the GPS time if available.

Auto GPS Time Adjust

- 1) Click on *Adjustments* in the WindPlot menu bar.
- 2) Then click on *Change COM port/Time*.
- 3) Click the *Set Time* button above the *Exit* button.



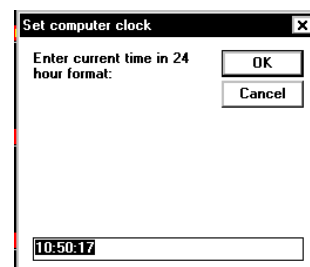
Chapter 2, Adjustments Menu

A message box will ask for the time you want and “(G=GPS time)” will appear if (and only if) GPS time is available. You can only get automatic time if a GPS with NMEA version 2.0 or better. Enter a “G” and another message box will appear asking for the number of hours difference between GMT time (GPS time is in Greenwich Mean Time) and local time. It will display the local time after entering the difference, click *Yes* if it is correct.

Manual Time Adjust

Click on *Adjustments* in the WindPlot menu bar. Then click on *Change COM port/Time*. Click the *Set Time* button above the *Exit button*.

A message box will ask for the time you want, enter the time using HH:MM:SS format.



Temperature adjustment

The *Adj.Temp.* button will appear when (and only when) you have temperature coming in to P-Sea WindPlot. The NMEA sentences for temperature is MTW. You will see the temp. displayed just below the vessel's speed and heading.

Show AIS

You must purchase the AIS activation code before you can use it through your local P-Sea Software dealer. The dealer will give you a number that will activate the AIS option. The WindPlot program will ask for this number when you attempt to start the AIS tracking function in WindPlot. Just open WindPlot, click on *Adjustments* and then select *Chg.COM Ports/Time*. Then just click the *Show AIS* check box in the window that appears and enter the activation number you were given by the dealer when prompted to do so. You will need to check information on your AIS receiver for the baud rate required and change the COM port in P-Sea WindPlot to accommodate it. Usually, the baud rate will need to be set at 38400.

What is AIS? The Automatic Identification System sends and receives data about the vessel(s) via a VHF radio on a timely basis. Data CAN consist of Lat./Long. Position, speed, heading, width, length, call sign, name, number of passengers, type of cargo, current status and so on. WindPlot can use the NMEA0183 VDM (Vessel Data Message) sentence from a AIS receiver to display this data on the plotter screen so you can tell at a glance the vessels' size, speed and heading. Then further information can be obtained by placing the mouse arrow over the AIS target or by looking at the AIS/ARPA list.

Auto-Reset checkbox is used if you find the COM ports drop out after running for a while or if you have a Windows Vista computer and Vista starts acting strangely after running a few hours. Then check this box and answer the questions. It will ask for times, we suggest using the given defaults and then decrease the time if it still acts up.

Use Old COM Driver check box. We installed a new COM driver when Vista came out as it didn't like the Microsoft COM driver. This seemed to cure a lot of Vista issues. However, if you find this COM driver isn't working good you can try the old method. Just disconnect or turn the GPS off and restart WindPlot. You will notice a checkbox at the bottom of the 4 horizontal green window “*Use Old COM Driver*”. Check this box and restart WindPlot and after WindPlot is running reconnect or turn your GPS back on. See then if you still have the same issues.

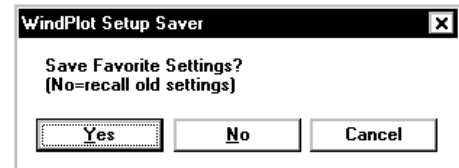
Adjustments Menu, Long Menu Features

Adjustments ' Favorite Settings

After getting your program setup just the way you want you should save these settings just incase some or you fouls up and gets your settings all out of kilter. Settings include things such as charts directories and display. Chart colors, screen fonts and so on.

To save or recall your favorite settings

Click on *Adjustments* in the WindPlot menu bar. Then click on *Favorite Settings*. The message box shown on the right here will appear. Simply select *Yes* to save your settings or *No* to recall them.



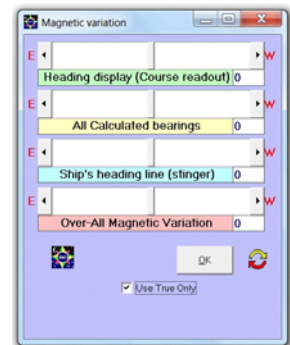
Adjustments ' High Resolution

Click this menu item to change the program to and from a higher degree of position resolution. The default WindPlot resolution is a thousandth of a minute of Lat./Long. You can take this one level higher and have a millionth of a minute accuracy with this adjustment. **You should NOT do this unless you have the DGPS receiver with this type of accuracy.** You cannot exchange any data including tracks and marks with another computer in a different resolution but you can get a lower plotter range. Most programs are running in standard resolution.

Each time you change resolutions, whether your going higher or lower, you will be asked if you want to convert your present data. Be sure to always answer yes unless you are just going to switch right back.

Adjustments ' Mag. Variation...

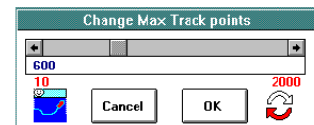
Magnetic Variation on heading, bearing and ship's line combined into one window: There are three things to can adjust for bearings, heading display shown in the upper right of the plotter screen, the ship and line that comes out from the ship and the calculated bearings.



To adjust any one of them just click on "*Magnetic Variation*" in the WindPlot "*Adjustments*" window and you will see the window shown here. You can adjust "*Heading display*", "*Calculated bearings*" and "*Ship's Heading*" independently or all at once by moving the bottom slider. The plotter screen will update as you make any changes as well. (Note: A negative number indicates an easterly variation; a positive number indicates a westerly variation.)

Adjustments ' Max Track Points

Clicking on the sixth item e *Adjustments* menu, *Max Track Points*, calls the *Change Maximum Track Points* dialog box. This box has a long horizontal scroll bar with buttons on both ends. Click on these buttons to adjust the maximum track point's value that is indicated just below the scroll bar. When you have the value you want, click on the *OK* button or press **Enter**. A dialog box will appear letting you know that the program will end if you go through with the change. Click on the *OK* button. You will be prompted to save any new marks or tracks. Click on the *OK* button in the *EXIT*



Chapter 2, Adjustments Menu

dialog box that appears and the program will end. Restart the program and the tracks will load with the new maximum track point value.

The program's default is 600 points per track, which should be OK in most situations. If you find you are running out of points before the end of a tow or tack then you should increase the track points here or increase the plot interval. If, after you have made a few tows, you look at the track search list and find you are always using less than 600, then you can decrease the maximum track points (the list will show a negative value if you have not displayed a track on the plotter screen so you may need to zoom way out to see the track points).

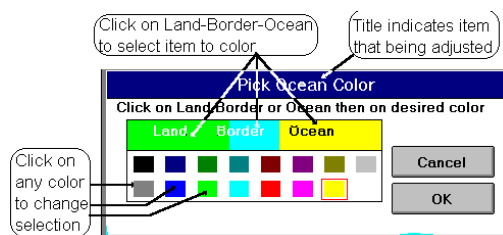
Adjustments ' Max Trk Lines (maximum track lines)

Clicking on the seventh item in the *Adjustments* menu, *Max Trk Lines*, calls the *Change Maximum Track lines* dialog box. This box is similar to the *Change Maximum Track Points* dialog box shown above and has a horizontal scroll bar with buttons on both ends. Click on the buttons at the end of the scroll bar to increase or decrease the maximum track lines' value as indicated in the box below the scroll bar. Press **Enter** or click on the *OK* button to activate the number.

You should try this a 0 to save video memory for RB flags and ARPA radar target icons. Should you find that the screen flickers then try experimenting with this value. Change it only a couple at a time and go back to the plotter screen and observe how it reacts. If you have a fast computer with a lot of RAM memory then the maximum setting of 100 would be preferred.

Adjustments ' Plotter Colors...

Clicking on the eighth item in the *Adjustments* menu, *Plotter Colors* calls a window that provides for adjusting the basic colors you see on the plotter screen as show to the right. You can the color of the background (Ocean) and the color of P-Sea VECTOR charts. **This has no affect on the color of RASTER charts.**



This window can only change one color at a time. The current color of land, land border and the ocean background is show in the bar just above the color squares. By clicking on the words in this bar, *Land*, *Border* or *Ocean*, you change the title of the window. The title of the window indicates which item color will change when clicking one of the color boxes.

The land contour or land *Border* can be different colors than the color used to actually fill in the land with color. Click on *Border and* select a border color by clicking on any one of the color boxes in this dialog box. Click on the *OK* button to confirm the selection. The screen will be redrawn with the new border color.

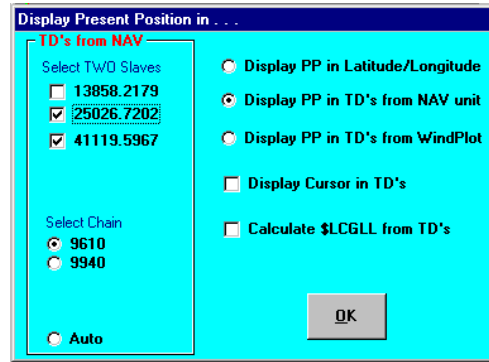
Click on *Land* and select a color for the land by clicking on any one of the color boxes in this dialog box. Click on the *OK* button to confirm the selection. The screen will be redrawn with the selected land color.

Adjustments Menu, Long Menu Features

Click on *Ocean* and select a color for the ocean by clicking on any one of the color boxes in this dialog box. Click on the *OK* button to confirm the selection. The screen will be redrawn with the selected ocean color.

Adjustments ' Show PP in TD's

This allows you to show the present position of the boat in TD's. Click this category to call the *Present Position* readout box. There are three selection for present position *Display PP in L/L*, *Display TD's from NAV unit* (if available otherwise it is dimmed) and *Display PP in TD's from WindPlot*. The first selection is the default. You can have the WindPlot program display TD's from a Loran if the Loran outputs it by selecting the second category. Or you can display its own TD's if you select the third check box. There is also an option to display the cursor in TD's.



If you have a Loran-C or GPS that outputs multiple GRI's, you will see additional chains to select from. Then, if your using the "T" key to toggle between BigTD and BigTD1 GRI's, click the *AUTO* option to have the program pick up the slaves for the present position from the values used in BigTD's setup. This does not setup the BigTD's GRI or slaves, you must do this using the GRI setup in the *TD to LL conversion* window located in the *Options* menu.

The *Calculate \$LCGLL from TD's* is checked when you want to have the program work *Dual Plot* mode without a Loran-C attached. However, this only works if your getting TD's from the attached equipment. This should only be used when a Loran-C is attached that outputs TD's but not \$LCGLL.

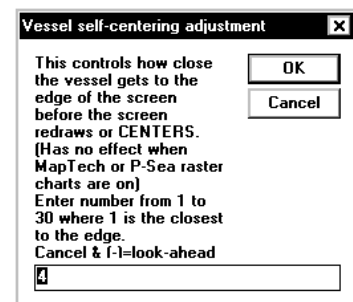
Adjustments ' Short Menus

Clicking on the third from last item in the *Adjustments* menu, *Short Menus*, results in only six short menus in the plotter menu bar. These six short menus provide access to the most commonly used features of the program and greatly simplify its use for the new user.

Adjustments ' Self Centering

The program will automatically center the boat whenever it gets too close to the edge of the plotter screen. You have control of how close it can get before it re-centers with this menu item. The range to enter is from 1 to 30 where 1 will allow the vessel to get the closest to the edge before it redraws.

To change the center setting, click on *Adjustments* in the plotter's menu bar then click on the 2nd to last item in the menu, *Self Centering*. Enter in any value between 1 and 30. If you would like the vessel to keep the vessel's icon as close to the center as possible then enter 30.



Chapter 2, Adjustments Menu

Look-ahead centering

You have, as an option to the normal centering, a look-ahead mode. This mode will cause the vessel to be pushed back when redrawing the screen, leaving most of the screen forward of the vessel. After all, usually you are not concerned where you have been, just where you are going. This does require a good-steady heading input or a lot of smoothing. You should also use the pop-up button options and do not use the 3D-XTE box as it will jump around the box.

Just select CANCEL instead of entering a centering value to activate the Look-Ahead feature or you can fine tune the *look-ahead* feature by entering a NEGATIVE value between -30 and -1 where -1 is the closes to the edge of the plotter screen.

The button at the bottom of the WindPlot tool bar will switch this self-centering value back and fourth each time it is clicked.



Adjustments ' Wide Vector Border

This function changes the thickness of the boarder that outlines the land in a P-Sea Vector chart. When this menu item is checked, the vector land contour will be twice the normal size. This is sometimes needed when certain video drivers allow the land color to run into the water making the water the same color as land. If you find the computer coloring the water wrong, try the *Wide Vector Border*.

To change vector border size, click on *Adjustments* in the plotter menu then click on *Wide Vector Border* at the bottom of the list.

Window Menu

Window

Clicking on *Window* in the plotter menu bar brings down the *Window* menu.

Window ' AB Track line on

Clicking on the first item in the *Window* menu, *AB Tack line on*, toggles on or off this function. A ° will appear to the left of the item in the menu when it is on.

Window ' ARPA/AIS Tracking

This item in the WindPlot's *Window* menu allows for setting up of ARPA targets. Requires the NMEA0183 sentence "TTM" to be fed into one of the COM ports and/or AIS option activated. WindPlot can handle up to 99

targets. Each target can have a variety of information displayed next to it. You can also control what color (if any) of track is displayed from each target. All of this is controlled from the ARPA menu. The menu list all targets it is receiving and of the data for each target such as range to target, target

The screenshot shows the 'ARPA Tracked Targets from external radar' table and the configuration panel below it.

T#	Name	Speed	Heading	Dist. to CPA	Time to CPA	Status	A./Man	Hide	Color	TI Pnts	Track #	Range	Bearing	Vessel Size
51	GRAND	21.2N	120.0°	N/A	N/A	Sailing	AIS	X	Lt Blue	25		117.0Nm	273°	199x32
52	240011000	13.2N	330.0°	85.88N	3333333.3Mm	Powered	AIS	X	Lt Blue	56		85.8Nm	292°	?
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														

The configuration panel below the table includes the following sections:

- Items to display next to target:**
 - Target Name
 - Lat./Long.
 - Target Number
 - Dist. to CPA
 - Speed
 - Time to CPA
 - Course
 - Range/Bearing
- Target tracking:**
 - Target Duration: 10
 - Max. Track Pts: 600
 - Refresh (sec.): 5
 - Tracking on
 - Auto Save
- Target Label:**
 - Label: Test Label
 - Label color: [dropdown]
 - Print color: [dropdown]
 - Solid back
 - Use Icons
- CPA Alarm:**
 - Dist. Off(Nm): [dropdown]
 - Time Off(Min.): [dropdown]
 - (0=off) [Off]
 - Heads up
 - Use AIS
- AIS Setup:**
 - Icon Size(10-99): 64
 - Drop after (min): 5
 - Save AIS Tracks
 - AIS Icon only
 - Size Icon to ship
 - Alarm on new target

speed and heading, closest point of approach and time to CPA. To have this work well, you need to have an accurate heading input for the plotter, hopefully, the same as the ARPA unit.

Saving a Target Track

Any target that is valid from the ARPA or AIS device will be listed in the top part of the menu. Clicking target number, the first column in the list, will cause the target to be added to your tracks list. Be sure to note the track number it is saved in if you are going to resave it again later and keep the track number the same. You will see what we mean when you attempt to save a track.

Hiding a Target Track

Clicking on the second to last column will cause the target to be hidden from the plotter screen.

Chapter 2, Window Menu

Changing Target Track Color

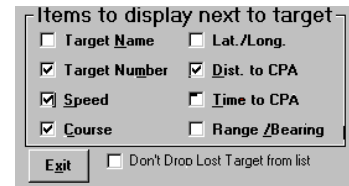
Click the 10th (*Color*) column is if you want to change the target track color. A *Select target track color* window will appear. Just click on the desired color in this window then click on *OK*.

Calling the ARPA menu:

- 1 Click on *Window* menu item in P-Sea WindPlot.
- 2 Click on *ARPA/AIS Tracking (x)*.

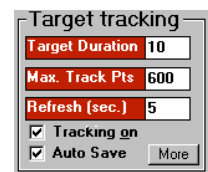
Changing what is displayed next to a target (called the target label)

There are five groups of controls (boxes) along the bottom of the menu. Starting from left to right, the first box is for setting up the text information that is displayed next to the target IF the target label is turned on and *Use AIS* is NOT checked. The default is just the target number. Click the white boxes in this group check and uncheck desired items. Check items will be displayed.



Target Track Setup

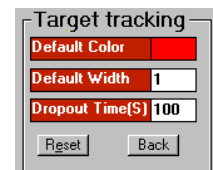
The next group labeled *TARGET TRACKING* is used to setup how the target track line is recorded. Click the white area in the top box *TARGET DURATION*, to set the time in seconds, that the program will save a target track point. Click the next box down, *MAX. TRACK Pts*, to set the maximum target track points that the program will remember. When the number of target track points gets to this value, the program loops back around and starts using the first memory points again. The third item down in this group is labeled *REFRESH (sec.)*, and controls how often the plotter screen targets are updated. You will notice a blinking effect when the labels are updated unless you are using the split screen and split screen data box.



The *Tracking on* box must be checked (°) if you want to display and record target tracks.

Tracks are automatically saved when the *Auto Save* is checked (°).

Click the *More* button for setting the default track color and width. Just click the box to the right of *Default Color* and select a new default from the Windows color menu. Click the white box next to *Default Width* and enter a number from 1 to 15 where 1 is the thinnest line you can make.

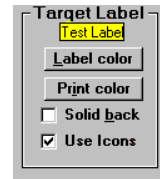


The *Dropout Time* is in seconds and is the time that the ARPA (only) target will be dropped from the list if no ARPA target data is received (this value does not effect AIS as it has it's own drop out time). This is over-riden if you have the *Don't Drop Target from list* checked (°) that is located next to the exit button.

The button labeled *RESET* that is next to the track on box is for clearing all target tracks. When the *RESET* button is clicked, all target tracks are erased to only their current position.

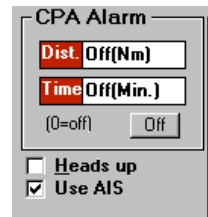
Target Label Setup

The third group from the left is the *TARGET LABEL* control box. It will control the appearance of the printing that is next to the target. Two buttons are provided to change the background and foreground colors of the printing. When the *Solid* box is checked (°), the back color will not have any affect and the printing will appear see-through.



Setting the CPA Alarm

ARPA provides for calculation of **C**losest **P**oint of **A**pproach or CPA for short. It calculates the CPA time and distance. That is the time and distance of CPA a target will be if both you and the target keeps on the present course. This is a very important safety aspect but always remember it does not mean you can leave your radar unattended. ***You should ALWAYS keep a vigilance on you radar for your own safety as equipment is always prone to failure.***



- 1) Call the ARPA menu, click on *Window* then select *ARPA Tracking*.
- 2) Click in white areas and enter in distance in miles and/or time in minutes.

Turning the CPA Alarm off

Just click the Off button located below the settings.

Heads up

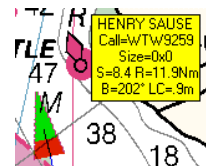
This to set the orientation mode. Check this box if the targets are not where they should be.

Use AIS

Ordering AIS Activation Code: You must purchase the AIS activation code before you can use it through your local P-Sea Software dealer. The dealer will give you a number that will activate the AIS option. The WindPlot program will ask for this number when you attempt to start the AIS tracking function in WindPlot. Just open WindPlot, click on Adjustments and then select *Chg.COM Ports/Time*. Then just click the AIS check box in the window that appears and enter the activation number you were given by the dealer when prompted to do so.

What is AIS? The **A**utomatic **I**dentification **S**ystem sends and receives data about the vessel(s) via a VHF radio on a timely basis. Data CAN consist of Lat./Long. Position, speed, heading, width, length, call sign, name, number of passengers, type of cargo, current status and so on. WindPlot can use the NMEA0183 VDM (Vessel Data Message) sentence from a AIS receiver to display this data on the plotter screen so you can tell at a glance the vessel's size, speed and heading. Then further information can be obtained by simply placing the mouse arrow over the AIS target or by looking at the AIS/ARPA list.

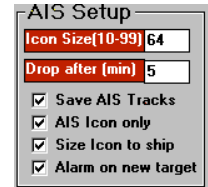
Using AIS Icons: You have the option of displaying AIS data using a label with selectable data on the plotter screen at all times or displaying ship's data in a form of an icon pointer. The icon pointer is a wedged-shaped icon that transitions from green (stopped) to red depending on the speed the AIS target is doing. This icon always points the direction the vessel is heading. There is also a size option that makes the icon change size according to the vessels size. **AIS Icons are turned on** by clicking the *Adjustment*



Chapter 2, Window Menu

menu and select *Chg.COM Ports/Time*. Then click the *Show AIS* check box. You should see a new sentence *!??VDM* coming through the data window. This may take a while depending on how many (if any) AIS targets are around.

Sizable AIS Icons: When AIS Icons function is activated, the size of the AIS Icon will change with the size of vessel. This will not happen at first, the vessel will be the size of the manual setting until the size of the vessel is reported and this may take up to 10 minutes as it is not transmitted as often as the position is (if it is sent at all). AIS setup is all done in the ARPA/AIS window. **To activate the sizable icons,** click *Window* menu and select *ARPA/AIS Tracking* and click the *Size Icon to Ship* check box.



NOTE: The ARPA/AIS Tracking window will not be available unless some AIS targets have been received. Click the “*Recheck*” button to enter the menu if no data is available.

Alarm on new target: The AIS target alarm will sound both a beeper and a voice when an AIS target is picked up. The ship must have a speed and be changing position or the alarm ignores it and does not sound. This function also requires the voice to be turned on in the *Window ' Sounds & Unit conversions* menu. The program will automatically turn the voice and sound on if not already turned on when selecting this function. **To activate the AIS alarm,** click *Window* menu and select *ARPA/AIS Tracking* and click the *Alarm on new target* check box.

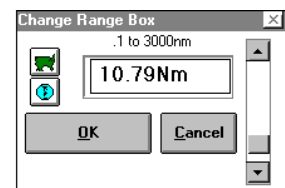
Manual Icon Size: You can make all of the AIS icons the same size by un-checking the *Size icon to ship* check box in the ARPA/AIS window and then set the size by changing the pixel size value in the *Icon Size* text box. Size can be from 10 to 90 where 64 or 32 is the preferred manual size of the icon.

No AIS Signal Dropout Time: When a vessel is out of VHF communications range the AIS information will no longer be available and the vessel may or may not be as shown on the chart. You can enter a time in minutes that if no signal is received from the target in this time period, the computer will drop it from the list. It will also automatically save it if you have the *Auto Save* option in the ARPA/AIS window checked (°) and the *Save AIS Tracks* checked (°) as well.

Blank menu? The menu will appear blank when WindPlot is receiving no valid ARPA data. If the list does not appear, check to see that the information is connected to the first COM port and can see the “TTM” sentence.

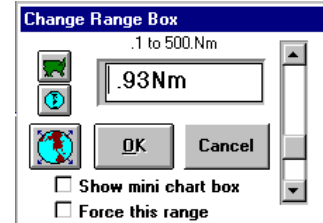
Window ' Change Range

Clicking on the third item in the *Window* menu, *Change Range*, calls the *Change Range* dialog box. This *Change Range* dialog box will be different if you are using a set of raster charts. This raster chart change range box will be discussed below. Enter any range from .1 to 3000nm. This range box can be called two other ways, press function key **F4** or click the range icon in the upper left of the plotter screen.



Window Menu, Long Menu Features

Type in the desired range or use the scroll bar to change it. Clicking on the little box at the bottom of the dialog box will toggle on or off the mini chart box that appears in the lower right of the plotter screen. Click on the *OK* button to confirm your selections. (Note: The mini chart option check box will only appear when you have vector or BSB raster charts and they are turned on.) **The vector world chart will appear on any range above 500nm as long as vector charts are turned on** (if you do not get the world chart on ranges over 500nm then you must ask your local dealer to load it for you. This chart is free and must come from your dealer.



If you are using a set of raster charts, the box on the right, *Change Range Box* will appear. The program will normally look for the raster chart with the best detail each time the plotter screen is redrawn. An optional button will appear in the range box when using more than one NOS, BSB or MapTech raster chart. This button allows you to change chart scales if you have multiple charts with different scales in the same area. This gives the effect of zooming in and out. It will also allow you to lock a particular chart in no matter what happens.

A check *Force this range* check box is located on the bottom of the range box. When checked (°), the range you enter will be maintained as best as the available charts will allow. Otherwise, you would need to enter the same range twice but that range will be lost when the chart number changes for the area your in.

Click on any chart number to select that chart for display

Click on choice of chart from list of charts in area						
Chart	Description	Scale	Depth	Date	Projec	↑
18007	San Francisco to Cape Flattery	1/1,200,000	fathoms	05/27/9	mercat	
18640	San Francisco to Point Arena	1/207,840	fathoms	07/22/9	mercat	
18651	San Francisco Bay Southern Part	1/40,000	feet	07/29/9	mercat	



← | →

Lock current chart
 Current chart: 18651 (NOS Raster)

Scales through the charts | Locks current chart when X'd

When the world button is clicked the window to the right here will appear showing a list of all charts that fall within the vessel or cursor's position. Click the *Next larger chart* to scale to the next larger scale chart. Click the *Biggest chart* button and the largest chart scale will be selected. The select best will find the chart for the area that has the smallest scale. Click the *Lock Current chart* check box when you are working a chart border and the computer keeps changing back to an undesired chart. When it is X'd, only the current chart will show when it is in range.

US and World view buttons

When you select a new range in WindPlot, you will notice two new buttons,  the WORLD CHART and  US CHART window buttons. These buttons will cause the program to momentarily switch to a different window using either the World or US charts. These charts are included free with WindPlot and

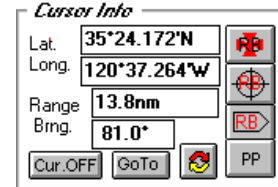
Chapter 2, Window Menu

when selected, they will stay on the screen for only a few seconds showing you all of your marks as dots. I stays on just long enough for you to point and click at a point on the chart. Then, you are switched back to the plotter screen at the point you clicked on. While the screen is showing, you can also select another range by pressing + and - keys.

Window ' Cursor RB to last mark

Clicking on the fourth item in the *Window* menu, *Cursor RB to last mark*, turns the cursor on (or off). The following *Cursor Information* dialog box will appear.

Note: Click on the cursor button in the upper left of the plotter screen or press the **Esc** key to turn it off. Click the button in lower right to change between Lat/Long and TD's.



This procedure is almost the same as pressing **F2** or pressing the cursor button in the upper left of the plotter screen which always gives you a **Range & Bearing** from the vessel to the cursor. The difference is that now you are asked if you would like the range and bearing calculations to be based on the last mark used. Usually the cursor's **Range & Bearing** is from ship to cursor but this allows you to assign any mark as the RB reference. Just click this category and answer *Yes* when it asks.

Then you can drag or click the cursor using the mouse or you can move the cursor by holding down one of the four keyboard arrow keys. As soon as you release the key, the cursor box updates the cursor position and the range and bearing relative to the last mark referenced. You can also click on any one of the four boxes inside the *Cursor Information* box and enter a number to move the cursor to a new location.

To reference a mark, simply place the cursor on any mark until the details of it appear on the screen.

There are 4 shortcut buttons that appear along the right side of the cursor box that will also change how the cursor **Range** and **Bearing (RB)** is calculated. The top button shown on the right here does the same as this menu item. The next calculates the **RB** from the last position of the cursor. The third button calculates the **RB** from the vessel's position to the cursor (default). And the last sets the vessel's position to match the cursor. **This is only to be used in Dead Reckoning mode.**



There are three other short-cut buttons along the bottom of the cursor box as shown on the right here. The leftmost button turns the cursor off, the next sets the current cursor position as a waypoint, and the next switches between Lat/Long and TD's.



Window ' Charts/Cartography...

Clicking on the fourth item in the *Window* menu, *Charts/Cartography*, calls a sub-menu for selecting vector and raster chart menus. The items in this sub-menu depend on if you have WindPlot MAX or WindPlot II loaded. The difference is WindPlot MAX will display C-map charts whereas WindPlot II can display Navionics charts. Both are well-known vector chart suppliers and both programs will display the rest of the line of charts WindPlot can display; P-Sea Vector, P-SeaSoft Bathymetry charts, Maptech BSB, Softcharts, NOA and True Charts.

Window Menu, Long Menu Features

BSB/Bathy/Vector Chart Switching Buttons

If you have more than one type of chart loaded, a new set of buttons will appear over the normal chart buttons in the lower-left of the plotter screen when more than one type of charts are installed in WindPlot. Clicking on these buttons will quickly switch between BSB/Softchart, Bathy, and vector charts IF they are installed. Right-click on these buttons to bring up the chart menu windows.



Window ' Charts/Cartography...' **Navionics Vector** (Skip if you have WindPlot MAX)

Ordering Charts

Navionics charts come on a computer flash memory card. A special Navionics card reader is required. The readers are free for new P-Sea WindPlot II users or you can purchase one for a small fee. Please click the *Ordering Charts* button in the *Navionics Charts List* shown below. Click the menus *Window* then *Charts/Cartography* then *Navionics Vector* to pull up this window.

Navionics Vector Chart Installation and Operation

There are two ways to install your new Navionics vector chart; Automatic and Manually

Navionics Automatic Chart Installation

To install your Navionics charts in P-Sea WindPlot you just need to place the Navionics chart card in the card reader and plug the reader in any USB port in the computer BEFORE you start P-Sea WindPlot. Then start P-Sea WindPlot and after entering your start code click on the *Window* menu in the WindPlot menu bar and select "*Charts/Cartography*" then click on "*Navionics Vector Charts*". The *Navionics Chart List* should appear. Check *Navionics Charts on* check box. The charts should then appear in the list. (If not then see installing charts below). When click on *Exit* and you are in the vicinity of the charts they should appear. Never remove the card or reader from the computer while running WindPlot.

The Navionics Chart List Window

To get the chart list, click on the *Window* menu and select *Charts/Cartography* then *Navionics Vector*. The Navionics chart selection window will appear as shown on the right.

From this window you can control every aspect of your on Navionics charts. You can set layers of charts by clicking on the *Set Chart Layers* button just below then chart list.

Chart	Chart Name	Lat. coverage	Long Coverage	Blue Pg
1	1G644T12 CALIFORNIA S - BAJA	41° 20' 299N-07° 12' 301N	090° 47' 157W-128° 49' 894W	Yes
2	1G804T12 HAWAIIAN IS	36° 10' 230N-02° 02' 231N	146° 43' 125W-178° 49' 000W	Yes
3	1G799T12 NORTHERN ALASKA	75° 12' 484N-58° 08' 484N	129° 57' 412W-175° 03' 241W	Yes
4	1G772T12 PARRY PASS-NEVA STR	61° 48' 537N-53° 16' 537N	124° 42' 691W-140° 40' 147W	Yes
5	1G771T12 CHATHAM SD-GAMBIER B	61° 48' 537N-53° 16' 537N	124° 42' 691W-140° 40' 147W	Yes
6	1G770T12 WRANGELL NAR-SKAGWAY	61° 48' 537N-53° 16' 537N	124° 42' 691W-140° 40' 147W	Yes
7	1G768T12 WESTERN ALASKA	71° 23' 859N-37° 15' 862N	115° 33' 346W-178° 52' 601W	Yes
8	1G767T12 ALEUTIAN ISLANDS	61° 58' 845N-44° 54' 844N	179° 28' 215E-179° 51' 112W	Yes
9	1G766T12 ALASKA PENINSULA	63° 58' 894N-46° 54' 893N	135° 32' 791W-166° 10' 546W	Yes
10	1G765T12 SO CENTRAL ALASKA	63° 58' 894N-46° 54' 893N	135° 32' 791W-166° 10' 546W	Yes

Click here to set Charts layers

Alpha Blending
 Alpha Blend
No Photo

Brightness
0 (0=Normal)
 Invert

Current Icons
Size 35
Max Spd. 3
 Show Icons

Large Print
 BA Colors
 Show changes
 Chart buttons visible

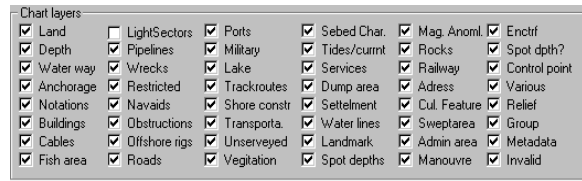
Set Chart Layers
Set Time Zone
Depth Line 800
Depths in Feet

Full Zoom DLL Version=4.0502
Ordering Chart Raster Charts
 Heads Up Ocean color
 Right-Click for chart Information
 Navionics Charts on

Exit Display Charts from: g: Search

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You get the list shown here. You can set the color of the Ocean by clicking the *Ocean Color* button. This only has an effect if you have the *Depth* box unchecked in the *Chart Layers* drop down. Select the *Heads Up* check box if you want the chart to rotate so the vessel is always going *UP* on the plotter screen. You can set the amount you can zoom in by changing the *Over-zoom* selection. It is best to leave it in *Full Over zoom*.



Non-Center

Navionics charts do not center perfectly by nature. P-Sea WindPlot will force the chart to center by shifting the picture sometimes leaving blank edges. You can turn the shift that WindPlot does by checking the *Non-Center* checkbox. The *Non-Center* checkbox is located to the right under the *Ocean color* button. When this box is checked (°) the *Look-Ahead* function of P-Sea WindPlot will not work.

Installation: Just plug the Navionics card reader with a chart in it into any USB port prior to starting P-Sea WindPlot II version 7.19 or better then turn them on by clicking **Navionics Charts on** check box in the Navionics chart window. If charts do not appear in the list then make sure the light is on in the card reader. If it isn't then try another port or card reader. Then open up Window My Computer and make sure there are 3 drives listed for the card reader. If not, then the USB on your computer is not compatible with the Navionics card reader. If the drives are there and the lights are on try getting the charts automatically or manually as described next.

PC Requirements: Windows Platform: 2000 pro w/service pack 4 or better. XP & XP pro with service pack 1 or better, Vista or Windows 7. It is advisable to update any windows platforms to the latest versions from the web.

Automatically setting charts:

You shouldn't have to do anything but plug the card and card reader in before starting WindPlot II (WindPlot MAX will not work Navionics charts). If charts don't show, click the "*Display Charts from*" button to call the chart file search window. You will be presented with the question "*Automatically search for charts?*". Click "*Yes*" to search automatically (Click "*No*" if you want to manually set the path). Click the "*Search Now*" button to start searching for charts. This may take a few minutes, when it is finished you will be presented with all chart files it has found. Carefully look over the list of charts for any one of the charts you want to display and click on it to select that chart path (Hint: it should start with a drive letter higher than "C"). Then click the "*Open*" and the charts should list.

Manually setting charts:

First, find the drive letter to the drive letter of the USB card reader by opening *My Computer* to see what drive the USB card reader is on. Opening each drive larger than "C" and look for the charts to be listed (They will end in ".NV2") then set the drive letter in the Navionics chart list to the same. The charts will only list if you get the correct drive letter. If they do not list and your are sure it is the correct drive letter then please note that there should be 3 drive letters associated with the USB card reader. If you do not see 3 drive letters then most likely your computer will not display the charts and you will probably need to put the latest Windows updates in the computer.

Basic Navionics Chart Operation

You do not have to do any chart selection, this will be done by WindPlot automatically. To change ranges, you can either click the *Range* button in the upper left, click the range readout and enter a specific range. There are also some scaling buttons located under the range button that will scale in and out. Then the *Zoom In* or *Zoom Out Chart Buttons* that appear in the lower left. Please note that you will need to turn on boundaries and zoom out to see the area the chart covers then zoom back in. You can darken and lighten the chart by changing the brightness slider that appears over the *Chart Button* in the lower-left of the plotter screen when you touch the left side with the mouse pointer. There is also a brightness setting on the Navionics Chart list. Please note the *Reset* button in the brightness slider. This sets the brightness to neutral or zero brightness change. The chart will draw faster when this is set to zero. You can also use the keyboards page up (**PgUp**) and page down (**PgDn**) keys to change range.

Blue Pages

If the charts have “*Blue Pages*” you can right-click on objects on the chart to get more information, you can get tides and currents, see below.

Show Changes check box

The first thing to check is if you want the chart in the background to update for each time you make any changes to the Navionics chart list. Just click the *Show Changes* check box so that it is marked if you want changes to happen in the background.

Large Print check box

There are two sizes of print and other chart objects. Navionics comes up with normal size by default. If you want the print and other chart objects to appear larger then click the “*Large Print*” check box so that it is marked.

BA Colors check box BA Colors

There are two chart display schemes, US and BA (British Admiralty). US mode is the default. Just click the *BA Colors* check box to display BA type display scheme.

Chart Buttons Visible check box Chart buttons visible




When this item is checked you will see a group of buttons in the lower-left of the plotter screen when you touch the mouse arrow against the left side of the computer screen. The left-most button will call this Navionics chart list. Then next button switches between day and the two night display modes, reverse color and all red. The next two buttons that look like small worlds scale the chart (most times) in and out. The next pad lock button to lock the program on a raster chart but does nothing for Navionics charts. The green world button call up the world chart and the last button starts the chart finder program.

Chart Boundaries check box Chart boundaries

Check this box to have the charts outlined in red when you zoom out.

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Right-Click for chart information check box Right-Click for chart Information

Most of the objects (buoys, lights, markers and so on) have hidden information on them. Check this box and then you can get information by clicking on them when the Navionics charts are displayed and the information will appear on the plotter screen in different manners depending on the object you are clicking on. This will disable the right mouse button from making marks if you are using it for that. A “T” in a diamond  represents a tide station and you can get tidal information by right-clicking on it. A “C” in a diamond  represents a current station. Click on it to get water currents and direction of the current. Panoramic photo icons are in the shape of green cameras facing the direction of the photo . Charts has to have what is called “Blue Pages” in order to have any of these three objects. Which charts has blue pages shows up in the last column of the Navionics chart list. Panoramic Photos are only on Platinum charts.

Heads up Mode check box Heads Up / Deadband: 1.5

The default map orientation is North Up. In that mode moving up on a map is always north and the boat icon rotates when heading changes. If you check the “Heads Up” check box then the charts will rotate and the boat icon remains pointing up. In this mode it is a little easier to look and find a land mark as you simply look in the same direction as it is displayed on the chart. However, the computer must rotate all chart data for each heading change and this can slow things way down. You will notice a white box appear next to the check box when it is check and it is labeled “Dead Band”. This dead band is the number of degrees of change required before the chart and data is rotated. If you enter 5 degrees for example, you can move 2.5 degrees right or left and the chart will not rotate. If you are going straight and the chart rotates all of the time then increase this amount. Too large an amount and you would be better off taking it out of heads up mode.

Zoom Level One Zoom

There is a zoom control drop down box to control the level of zoom. Choices are; *None*, *One Zoom* and *Full Zoom*. Normally, you should leave it on *Full Zoom* to gain as much control over ranges as possible.

Depth Units Depths in: Feet

The charts can display spot soundings and depth curves in either Feet, Fathoms or Meters. To change depth units just click on the arrow button located below the *Depth in:* label in the Navionics chart list and select the desired depth unit by clicking on in the list that will appear.

Depth Line Depth Line 51

Enter a number here where you want to have the water depth change in color. The value entered here will be used to color the depths up to a the closest depth curve on the chart that matches (but may not match exactly) the depth you enter. Enter 0 to return the chart to normal depth shading.

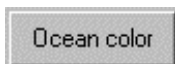
Brightness

You can change the brightness of the chart using the “*Brightness*” box on the Navionics chart list. Brightness levels are -250 (total darkness) to +250 (total lightness). If you leave it at zero, the chart is presented normal as it is drawn by the Navionics software and takes less time to draw.



Window Menu, Long Menu Features

Ocean color button

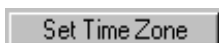


Click this button to set the default chart background color that shows up when chart coverage ends. When you click it you just click on the color you want from the color window, usually you will want a blue hue.

Blue Pages

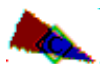
The rest of the features described below will depend on the type of chart and may not be present. If you look at the charts listed you will see a category at the right side of the list is "Blue Pages". The chart must have this column listed as *Yes* in order to do the following features.

Set Time Zone



Click this button to set the Time Zone that you are in. It is used for getting the proper times for predicting tides, currents, moon and sun phases. Just enter the time offset from Greenwich mean time in hours.

Current Icons



Current symbols show up as "C"s with a diamond box around it. You can get current info by right-clicking on it provided you have that option activated. You can also have an arrow appear on the screen that visually points the direction and shows the speed by how much of the arrow is green and red. The faster the current the more red the icon is. This is turned on when the "Show Icons" check box is checked in the Navionics chart list "Currents Icons" box. You can also set the size of the icons and the maximum speed of the red/green speed indicator. Just click the up/down arrows or enter a value.

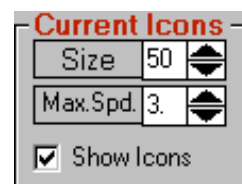
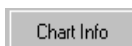
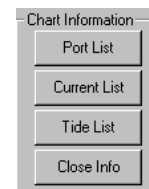


Chart Info button



Click this button to search the current chart that is displaying on the plotter screen (one must be displayed at the time this is clicked) for Tide stations, Current stations, ports & port operations. Click the *Chart Info* button and the panel shown to the right here will appear.



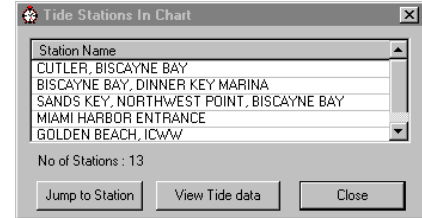
If you click on **Port List** you will get a list of all ports and port operation objects as shown here to the left. Use the scroll bar to find the port or port object you want to see and click on it then just click the *Go to Port* button. The list will disappear and the plotter will pan to the location of the port object you clicked on.

If you click on **Current List** button then you will get a list of the current stations in the area. If you click on one of the stations that are in this list you have the choice to view the current information by clicking on the *View Current Information* button or to view where on the chart the station is by clicking the *Jump To Station* button.

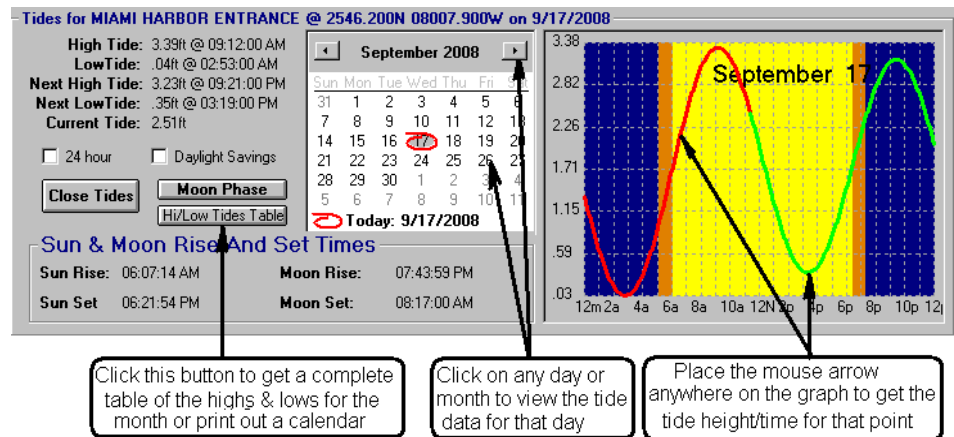


Chapter 2, Window Menu

If you click the **Tide List** button then you will get a list of all of the tide stations in the area. Click on one of the tide stations in the list to select one then you can click the **Jump to Station** button to have the chart panned and centered on the tide station's location or click the **View Tide data** button to call the tide table shown below.



The tide window here shows the current high/low tides for the day. A graph shows what the tide will be doing for the days with the current tide shown where the red line turns to green. Place your mouse arrow anywhere on the graph to get the tide and time at the point. Click on the calendar to view the tide data for different day.



Click the **Hi/Low Tide Table** button to get a printout of all the high and low tides for the month. Then you can click the **Click to Print Table** button to print a calendar of highs and lows for the month to an external printer.

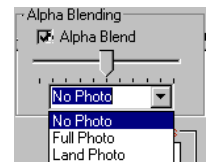


Tide Time Adjust

If the time for the tides seem a little off as they can be depending where you are in a harbor, the *Tweak Time* adjustment will allow you to fine tune the tide table.

Navigational Photo Overlays

The Platinum series of charts have the option to overlay navigational aerial photos into the vector charts. If you wish to mix the navigation photos you must first pick out if you want "Full Photo" or just "Land Photo". They do just what they say, the *Full Photo* shows all of the available photo overlaid on the Navionics vector chart where as the *Land Photo* selection will just show the land portion overlaid on the chart with one exception. When you have a value entered in the *Depth Line* the photo will extend past the shore line a little.



The *Alpha Blend* slider will change the blend between the vector and photo overlay. The left side shows more vector and moving the slider towards the right overlays more of the navigation photo.

Pros & Cons of Navionics Vector vs. Maptech BSB4/SoftChart Raster Charts

PRO: Navionics charts look like raster charts but they are layered, 40 different features of the charts can be turned on and off. They are seamless, no edges of charts will appear. They have a larger area

Window Menu, Long Menu Features

coverage for the same price and they have charts that cover more of the world. They do not turn *Blocky* when zoomed in. They do not require registration like BSB4 charts. **CONS:** They do not always center exactly on the screen, the printing is smaller and the depths are all in meters (this will most likely be resolved somewhere down the line to provide feet, meters or fathoms).

Window ' Charts/Cartography...' **C-Map MAX Vector Charts** (skip if you have WindPlot II)
C-Map vector charts have tides and currents built into each chart with phases of the moon. It has point and click chart info like pictures of points, harbors, bridges and so on. It has a new “*Perspective view*” that presents a birds-eye type of view of the charts. You can specify the color or highlight the depth contours. It is layered allowing you to show only the information that you need to display. And since they are vector charts they stay clear even when zoomed way in.

Turning C-Map Charts On and Off

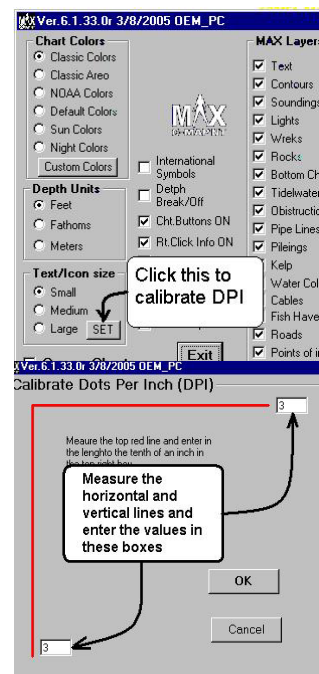
The C-Map charts are turned on by clicking on the “*WINDOW*” menu then select “*Charst/Cartography*” then “*C-Map Vector Charts*” to get the C-Map Vector chart setup window. If it is the first time you have called this window you will be asked to measure a vertical and a horizontal line and enter the length in. This will calibrate the font size printed on the charts.

To turn the charts on simple check the “*C-MAP CHARTS ON*” check box. Then setup the color scheme you want, there are seven standard choices presented with check boxes. Note that any changes made cause the chart to be redrawn with the new change and also, some colors will only be applied as certain chart levels. Mostly, level D is the preferred range for color changes. The current chart level is noted at the bottom-left in a letter between A-W just after the current chart scale. Click the “*CUSTOM COLORS*” to assign you own colors to the depth contours or to high-light a depth range. Note that when these are turned on they override the “*CHART COLOR*” options at the lower chart levels. Then select whether you want measurement done in feet, fathoms or meters, select what layers you want turned on by checking the boxes in the *MAX LAYERS* column. Again, you should notice the screen redraw with the new setting.

First Time Screen Calibration

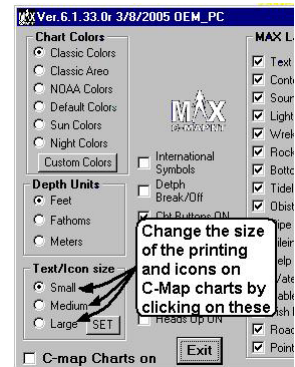
Make sure C-Map charts are on by checking the “*C-MAP CHARTS ON*” check box located to the left of the exit button. The first time you turn on C-Map Charts you will usually be asked to calibrate the chart to your monitor by measuring a vertical and horizontal line and enter these measured values. This sets the dots per inch (DPI) so that the printing on the charts are the proper size. You can re-calibrate the DPI at any time by clicking the “*SET*” button in the C-Map Vector chart window as show here to the right.

Simply take a tape measure and measure length in inches of the red vertical and horizontal lines. Then enter these lengths to the nearest tenth of an inch. This can also be used to change the size of the printing on the C-Map charts. Make the numbers smaller to make printing bigger.



Changing Size for Chart Fonts and Icons

C-Map provides three set sizes for the printing on the chart and for the size of the icons of *SMALL*, *MEDIUM* and *LARGE*. The default is *SMALL*. Please note that the C-Map charts have a anti-clutter filter built in that prevents most printing and icons from over-lapping each other as you zoom out. So this means that less information will be displayed the larger you make the printing as the anti-clutter had to turn objects off in order to keep them from overlapping. You can of course zoom down to lower scales to see the data that is removed when the larger print is selected.



Depth Units

C-Map charts can display spot soundings, depth contours and land elevations. You can change the unit of measure for these between Feet, Fathoms and Meters by clicking on the appropriate option in the C-Map charts setup window shown here to the right. The chart in the background will update each time you make a new selection of the measurement units.

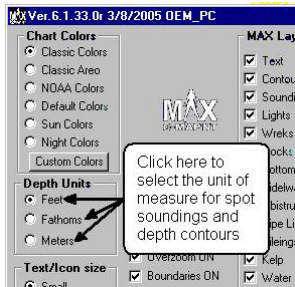
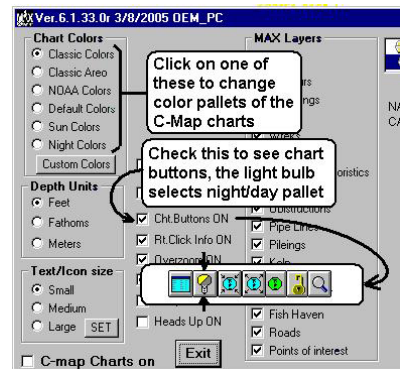


Chart Colors

C-Map provides for 6 different chart color palettes. Simply click on any one to see what the chart color palettes are like. Use "*Night Colors*" when you want the computer monitor darker like at night. The default is "*Classic Colors*". If you turn the chart buttons on, a series of chart related buttons will appear in the lower-left of the plotter screen when you touch the mouse arrow on the left of the screen. The second button that looks like a light bulb will alternate between one of the day color palettes and the night palette.



Custom Chart Colors

The custom chart color mode allows you to modify the colors associated with depth contours only. Please note that these colors are only applied at lower chart levels and only in detailed chart areas that appear at lower ranges. They will not work when you're too far off shore.

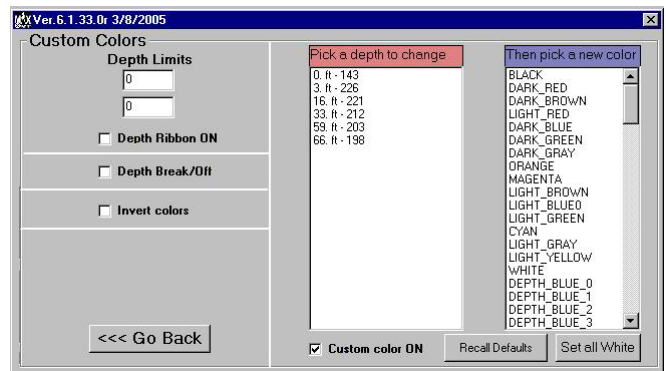


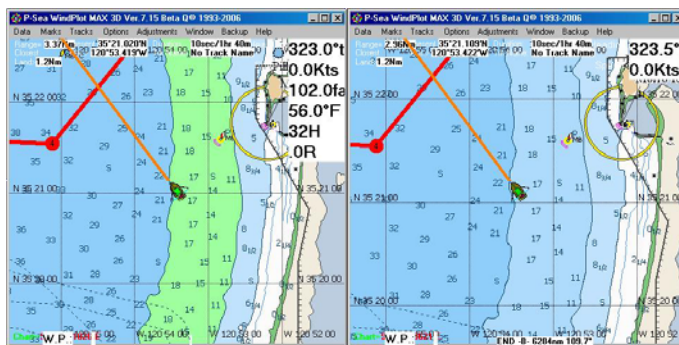
Chart Brightness

As with most charts in WindPlot you can lighten or darken the charts. This is done by the *Shader* control window that will appear when you put your mouse arrow over the chart buttons described above. Then just move the slider to the right to brighten it and left to darken.

You can highlight a depth range by simply entering the upper and lower limits in the white boxes below the words "*DEPTH LIMITS*" and put a check mark in the "*DEPTH RIBBON ON*" check box.

Window Menu, Long Menu Features

You can set it to highlight a depth range by entering a maximum and minimum depth or you can actually set a color for each depth contour. Use the right side of the custom color window for this purpose. The left column has a list of most all of the depth contours with it's associated color. To change a color for any contour, first click on the contour in the left list then click on a color from the right list. These colors will be applied when you place a check mark in the “*CUSTOM COLOR ON*” check box and when the proper chart scale is selected. Two buttons have been provided to aid in the setup of the custom colors; “*SET ALL WHITE*” will change all colors to white and the “*RECALL DEFAULTS*” will bring back the original colors as they appear when this function is turned off.



If you click the “*DEPTH BREAK ON*” check box you will be asked for a value of depth to enter. Enter zero for no depth break or enter the depth you want the break to be at. If you enter 20 fathoms for example, the color of the depth will be white after that value and colored before that value. Please note this works only on chart levels D or less.

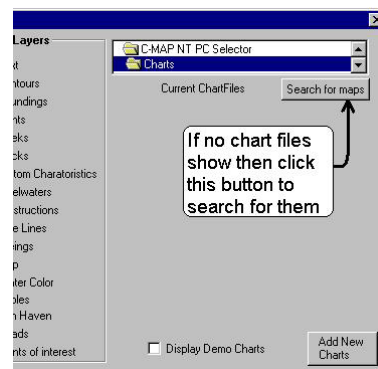
The “*INVERT COLORS*” check box will set the contour colors spanning the opposite direction, dark to light and light to dark. You must restart the program to see these changes. The default is unchecked.

C-Map Card Reader

If you are using the C-Map Card Reader there should be one chart that list on the right side of the C-Map Setup window. It should match the name on the C-card. The card reader must be plugged in the computer BEFORE starting the P-Sea WindPlot MAX program. The light on the card reader will turn red at first and then should turn green when WindPlot MAX is started indicating that the chart has been found and loaded from the C-card. If this does not happen, quit the P-Sea WindPlot MAX program, unplug the card reader. Reinstall the card reader software, plug the card reader back in and start P-Sea WindPlot MAX again. If you do not have the card reader software then call P-Sea Software Co. to obtain a copy or download it from the web; www.p-sea.com/win_xp.htm.

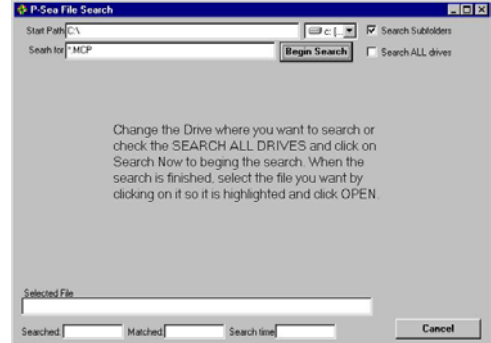
C-Map Chart List

After installing charts they should be listed in the right side of the C-Map setup window. You can install many chart files and they should all show in this list. If not then they won't show up in the P-Sea WindPlot program. Further proof can be found by checking the “*BOUNDARIES ON*” check box found on the C-Map Setup window. The zoom out at the location where the charts should be by either entering in a range of 500 miles or click the right-most yellow arrow button located under the RANGE button in the upper-left of the plotter window.



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If you can't find the chart either in the list or on screen then you can try and find the files by clicking the “*SEARCH FOR FILES*” button show here on the right. Then click the “*BEGIN SEARCH*” to look for the C-Map chart files. They have an MCP file extension, any file with this extension will be listed. If more than one show then click on one and then click the “*EXIT*”. You're charts should now be listed. If you still don't find them then check the “*SEARCH ALL DRIVES*” in the search window and see if you can find them that way.



Navigating with C-Map Charts in P-Sea WindPlot MAX

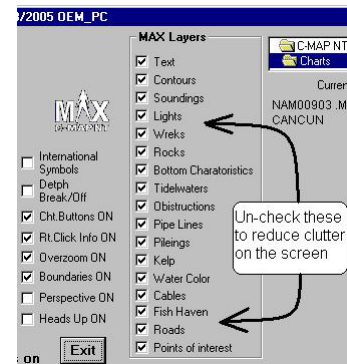
C-Map charts will display automatically if the following is true: **1)** You have C-Map charts turned on and **2)** You have positioned either the ship's icon or cursor in the location where the charts are located. C-Map charts are turned on by clicking on the “*WINDOW*” menu then select “*CHARTS/CARTOGRAPHY*” then “*C-MAP VECTOR CHARTS*” and check the “*C-MAP CHARTS ON*” check box. Then if you have a GPS connected with the “*” flashing up by the right of the Latitude readout (indicating you have position) and the C-Map chart pack you picked is of the area your in then the chart should just appear now. If your not in the area of the chart coverage then you can turn on the cursor (press **F2**) and place the yellow bull's-eye in the area where the chart is by entering a large range (press **F4**) of about 2000 miles and drag the cursor to the area where the charts are or should be. Then zoom in by changing the range (press **F4**) of 10 or so miles. If you need to pan right or left then simply drag the yellow bulls-eye off of the screen and let go. It should then pan in that direction.

There are several ways to change the range/scale of the charts. The range of the current chart is displayed in the upper-left and the scale and chart level is displayed in the lower-left. **1)** Enter a range directly by pressing **F4** and enter a range in nautical miles. **2)** Use the scale buttons located under the range button in the upper right. They look like a bunch of yellow arrows shown to the right here. **3)** A set of zoom in/out buttons will appear in the lower-left when the mouse arrow touches the left side of the screen (if “*Chart buttons visible*” is checked in the C-Map setup window). The third button that is suppose to look like a blue world with arrows pointing in towards it zooms in when clicked. The fourth button with arrows pointing out zooms out when clicked. (The first button calls the C-map setup window, the second alternates between day and night colors, the 5th button zooms to the world chart, the 6th button locks the current chart level and the last searches for other kinds of charts.) **4)** You can press the **PgUp** and **PgDn** buttons on the computer's keyboard to zoom in and out like the buttons do in #3 above.



Removing Chart Clutter or Layers

C-Map charts are Vector type, that is the data that makes up the charts are simply made of points and objects. Because of this you can remove any of these points or objects of the charts that you may not need. This clears up the chart so that you can see other more important information better. The C-Map Setup window has a series of check boxes in the “*MAX LAYERS*” area that remove items when unchecked. Each time you check or un-check one the chart behind the window updates to show the changes.



International Symbols

There are two styles for chart icons in C-Map charts, international and US. A check box called “INTERNATIONAL SYMBOLS” is provided for switch to one or the other. You can find it above the “EXIT” button in the C-Map setup window.

Always Use CM (C-Map) World Charts

When this option is checked, you will be asked at what range you want the C-Map world chart to appear. Then, anytime the WindPlot is set for a range higher than the maximum world value, the C-Map World chart will appear even if your using bathy or BSB navigational charts.

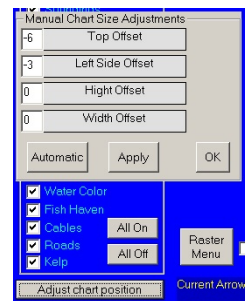
Right-Click Chart Info

If you have the check box “*RT.CLICK INFO ON*” then a dialog box will appear anytime you place the mouse arrow over an object like a buoy and click the right mouse button. This info box will contain important information pertaining to the object you right-clicked on. Please note that when this is checked, the make mark with right mouse button is disabled.

Calibration

Not all computer screens are alike so the pixel position of the chart may be a little off and if so you may not be able to right-click to get chart information. You can check how accurate by putting the WindPlot cursor over a Lat/Long crossing. The Lat./Long. in the *Cursor Info* does should match the Lat./Long. lines on the chart.

If they don't match, nudge the cursor using the keyboard arrow keys to where the Lat/Long on the *Cursor Info* box match the chart Lat/Long. If it is below the line on the chart then you need to use a minus value in the *TOP OFFSET* box. If the cursor is to the right of the line then use a minus value in the *LEFT SIDE OFFSET* box. Try only 3 pixels at a time, and keep repeating by trial and error. Then when they match, try all four corners and see that the cursor still reads the same as the Lat./Long lines on the chart. If they seem to change as you go across the screen then you will need to play with the bottom two adjustments but normally this will never be needed.



Overzoom

For the most part this just should always be checked otherwise it limits the ranges that the charts will work on. Just make sure the “*OVERZOOM ON*” is checked in the C-Map Setup window.

Boundaries On

Even though you only may have purchased on chart there it will consist of may different charts. Each chart can be shown by outlining it in a chart boundary. To do this just check the “*BOUNDARIES ON*” check box. Then the chart outlines will appear when zoomed out. The smaller the outline the more detailed the chart will be.

Perspective Mode

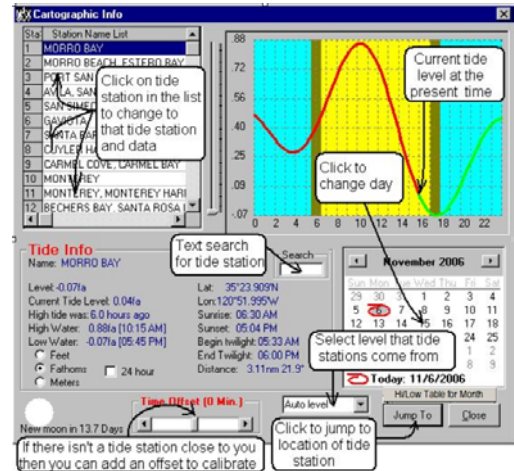
A new entertaining chart mode had been introduced by C-Map in their MAX line of charts that is called a Perspective view. When checked the charts will appear as shown in the example to the right here that kind of gives a bird's-eye view of the chart. Over and under zoom does not work in the perspective mode so ranges are very limited.



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Tides

C-Map charts have the tide stations built into the chart. Each tide station is denoted by a **T** in a white box. If you have the “*RT. CLICK INFO ON*” checked in the C-Map Setup window then right-clicking on the chart will give you info about it and if you right-click on the **T** on the chart then the **TIDE WINDOW** will appear shown here. It can also be called by going to the “*OPTIONS*” menu and clicking on “*TIDE FORECASTER*”. This way will also give a list of all tide station on the current chart level. You can change the level by selecting a different level from the drop-down box on the bottom of the tide window.



In the **TIDE INFO** section, the **LEVEL** is the of tide at the current position of the scroll arrow located along the left side of the tide graph. You can change this level just by moving the mouse arrow up and down the graph. The **CURRENT LEVEL** is the tide level a the current time. The **HIGH WATER** and **LOW WATER** gives the high and low points of time for the day. The tide unit of measure can be changed by clicking on either “**FEET**”, “**FATHOMS**” or “**METERS**” options. The **Lat/Long** is the position of the selected tide station. Then the times of sunrise, set and twilight is given for the current date. The time format can be changed between 12 and 24 by checking the **24 HOUR** check box. The **DISTANCE** is the distance from where the ship’s position is in relation to the selected tide station.

The graph in the upper-right shows the tide for a 24 hour period. The line changes from red to green at the current time of day. It comes up with the tide for the current date that the computer is set for. If this is the wrong day then set you computer to the proper day. If you wish to see the tide for a **different day** then just use the calendar in the lower-right to find the date you want and click on it to change to that date.

Hi-Low tide table is available for the month, just click the “*Hi-Low Tide Table for Month*” button at the bottom of the calendar. You can also **get a paper printout** that looks like the calendar with the hi-low tides printed for each day.

Select different tide stations by clicking on them in the list. If you know the name of the tide station then enter it in the “*SEARCH*” box and the list will update showing all stations that match your search text.

Jump to the location of the selected tide station on the C-Map chart by clicking the “*JUMP TO*” button.

If there is no tide station close to where your at or the tide prediction is a little off time wise then you can compensate by changing the “*TIME OFFSET*” scroll bar located at the bottom of the window until the tide is correct.

Phase of the moon is displayed in the lower-left of the tide window. This display’s the current moon phase both graphically and by the number of days until either a full or new moon.

Window Menu, Long Menu Features

Currents

Tidal streams represent the speed and orientation of the water stream (flow). During the map redraw C-Map MAX chart calculates the speed and orientation of each tidal stream object present on the map and display them as arrows. Tidal streams speed and orientation depends on current date and time (taken from GPS for example). Right-clicking on these arrow will give the actual heading and speed for the current.



If the currents seem to be off you can advance the time (in hours) by clicking on the following down-arrow Current Arrows offset (Hrs) located in the C-Map setup window and select the number of hours to advance it.

Below here is a table of how the arrows are displayed according to the speed of the current.

Speed MIN	Speed MAX	Draw of Tidal Stream	Typical color
0	0.099	Little square	Yellow
0.1	0.99	Little arrow	Yellow
1.0	1.99	Little arrow	Orange
2.0	2.99	Little arrow	Orange
3.0		Little arrow	Red

Window 'Charts/Cartography...' P-Sea Vector

Clicking on *Vector* from the *Charts/Cartography* sub-menu calls the following vector window. It lists the current status of the vector charts including the world and US vector charts. It also has four buttons; *Turn On* (or *Turn off* depending on current status), *Chart list*, *Setup* and *Exit menu*.

Clicking the first button, *Turn On* (or *Turn off* depending on current status) will either turn on or off all vector charts without changing the setup.

Clicking on *Setup* will cause a different window to appear as seen in the figure on the right below.

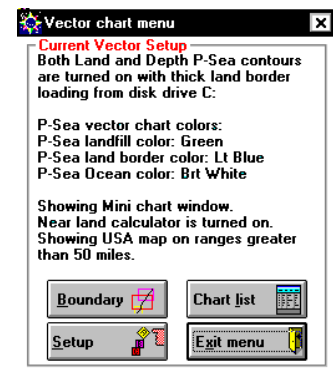
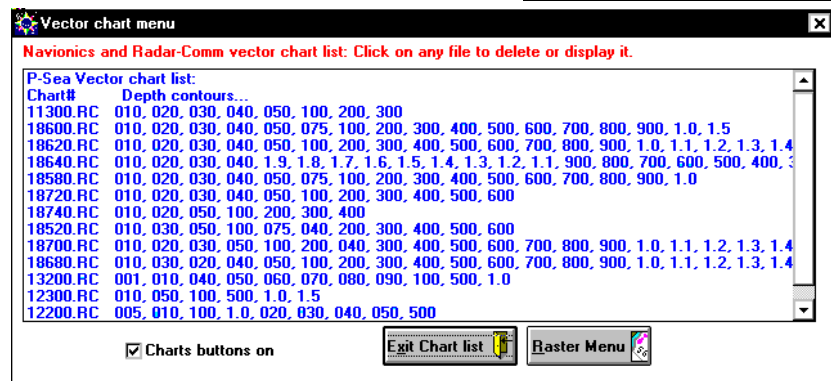


Chart List Button

Click this button in the vector menu to see what charts you have loaded. If you just loaded some charts you may need to exit the vector menu before they will show up.




Chapter 2, Window Menu

When charts are listing click on there name or title and you will be asked if you want to do one of the following:

- 1 Delete the chart
- 2 Display the chart

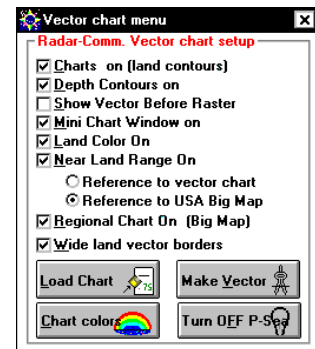
Pick number one and you are asked a second time if you really want to delete the chart. Pick 2 and you are taken to where the chart is on the plotter screen.

Chart list *Charts buttons on check box.* When this box is checked (°), the range, and chart control buttons will appear on the plotter screen. There are 7  buttons on this bar. The first will call either the Vector or Raster control menus depending on which one is turned on. The next button, the invert button, will change the color of the background and foreground colors. The colors vary depending on what type of chart you are displaying. The next two buttons will scale charts in or out or simply change the range if there are no charts showing. The fifth button calls up the P-Sea world chart. Just point and click to jump to anywhere in the world. The second to last button is used for raster charts. It is a padlock button and when closed, the current chart number used will not change but the size will be changed to match range, otherwise the charts will change them self as you go from one range to another. The last button is the chart finder. Click it and WindPlot will display all of the different types of charts it finds and label them with a number. Then all you need to do to switch from one type of chart to the next is enter the number in front of the type of chart you want displayed.

P-Sea Vector Setup box

This is the vector setup window menu shown here on the left side. It also has four buttons and several check boxes.

- 1 The first check box, *Charts on*, controls the vector chart that you have purchased for better detail.
- 2 The second check box, *Depth Contours on*, control the status of the depth contours that you purchased with the land charts.
- 3 The third check box, *Show Vector Before Raster*, will cause the vector chart to be shown before a raster chart if both charts exists for the same area and if you have both of them turned on.
- 4 The next check box, *Mini Chart Window on*, turns on the mini chart window. This is window that appears in the lower-right of the plotter screen with a thumbnail of all of the present chart in the plotter screen compressed down to fit the window (the plotter screen only sees a portion of it). You can use it to jump around anywhere on the chart. Note that this window is movable and sizable, just drag the left or top borders to resize and drag it when the cursor turns to a 4 point arrow near the upper-left corner. Waypoints will also appear in this window.
- 5 The next check box, *Land Color on*, will color in land when checked (°).
- 6 The next check box, *Near Land Range on* will calculate the nearest land when checked (°). The range will appear just under the plotter range in the upper left and a small dot will appear on the vector chart to show where the closest land is. The two option buttons below this check box instructs which type of vector chart to use as a reference. You must have purchased a chart for that area before you select *Reference to vector chart*. If you select *Reference to USA Big Map* then the near land calculator will work anywhere in the USA except Alaska but it will not be as accurate.



Window Menu, Long Menu Features

- 7 The next check box, *Regional Chart On*, will cause the USA Big Map to show when the plotter range is over 50nm.
- 8 The last check box, *Wide land vector borders*, will cause the land borders to be twice as wide as normal. You may want to try using this should you have problems with the screen turning all the same color as land.

This menu also has four buttons; *Exit Setup*, to go back to the vector menu, *Load Chart*, for loading new vector charts onto your hard drive, *Make Vector*, for making your own vector charts and *Chart colors*, for changing the color of the Ocean, Land and land contour (border) color.

NOTE: We do not supply a manual for making vector charts. Use the help built into the program by pressing the **F1** key and search or *Vector*, making your own charts. You can print it to a printer.

When you click the *Chart List* button, a different window will appear listing all charts you purchased and loaded in the computer. Note: this list is only for reference, if you want to add or delete charts you must do it from different menus.

Window ' Charts/Cartography ' **Raster** (Short cut key **Ctrl-N**)

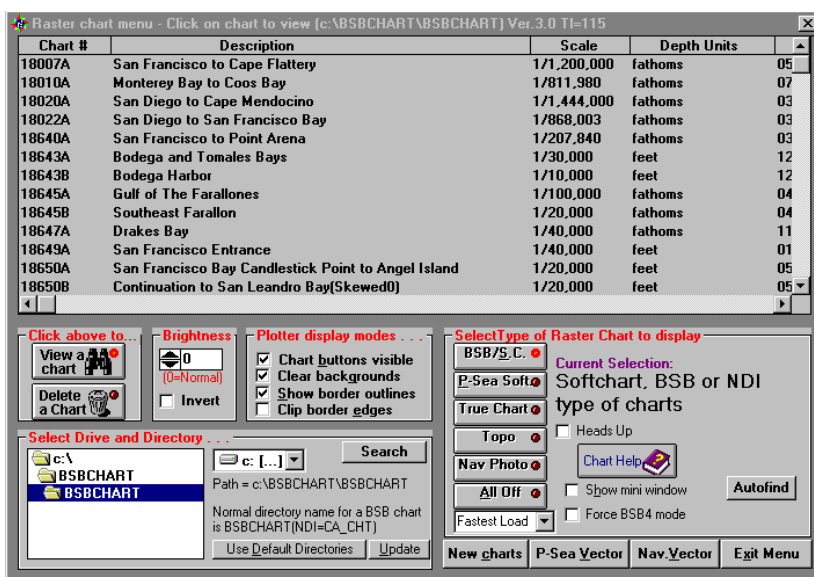
Look appendix C for an explanation of raster as compared to vector charts. Raster charts are basically just digital pictures of charts like a digital camera takes. Since they are digital pictures they will become blocky looking as you zoom in just like the pictures do no digital cameras. P-Sea WindPlot will display a wide variety of RASTER charts: BSB, SoftChart, MapTech True Chart (PCX), MapTech Coastal Topo (.024), MapTech Nav Photos (.SPH), P-Sea Software Bathy. (.RCB) and NOS (.NOS)

The Raster Control Panel

Click on the last item in the sub-menu, *Raster Charts*, and the following list will appear. This list is the raster control panel and chart list. Depending on the type of raster chart chosen, this list will display pertinent information about the raster charts on hand, allow you to view a large section of it, delete it one file at a time and zoom to any part of it.

Auto Find

Click this button to have the program list all displayable types of charts from all drives. Just enter the number from the in front of each chart type on the list to have the program automatically load and display those charts. This will not show charts that need to be installed. You can click the *New Charts* button to install new charts. This does allow you a fast way to switch between chart types. This also appears as magnifying glass icon on WindPlots' Raster Buttons.

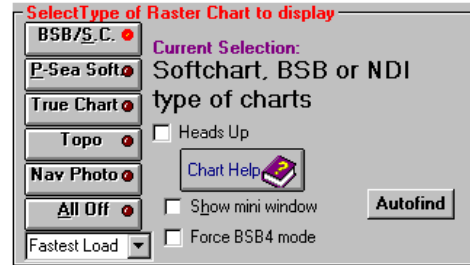


Select Raster Type panel

This panel is located next to the exit button. It allows you to select the type of raster chart you want to display. Raster charts will override vector charts if they are turned on also and display the raster when there is a vector chart of the same area. Several check boxes will appear depending on the type of raster chart selected.

BSB/S.C. type charts

These are Maptech's BSB/BSB4 charts and the equivalent version of BSB charts by SoftCharts. When BSB/S.C. type charts are selected, a list of the charts on the current directory should appear in the list. If not, you may need to change drives and then click the *Use Default Directories* and *Update* buttons.



You can download BSB charts from the web for free at <http://www.chart.noaa.gov/RNCs/RNCs.html>. After you download them extract them to drive C:\. Then click the *Autofind* button on the raster chart list and select the number in front of "Locate and install Free NOAA charts". Then you just need to locate the **BSBROOT** directory and click on it then click *Open*. The WindPlot program will move all charts to the BSBCHART folder where WindPlot likes them to be. If the charts show up on the list then they were successfully installed and all you need to do is exit the raster menu to see your new charts.

The following check boxes will also appear for this selection:

Heads Up check box:

Normal chart view is called North-up as the chart is always displayed in its natural position, north up (except skewed charts). Then the boat icon rotates as the vessel changes course.

When the *Heads Up* check box is checked () , then the boat icon remains in the north-up position and the chart rotates as the vessel's heading changes. This is not recommended unless you have a heading sensor feeding P-Sea WindPlot, otherwise the chart will be constantly rotating.

Include Skewed charts/Fastest Load selection box:

Most charts are stored on disk in the North-Up direction. Skewed charts are not and since WindPlot can only display charts in the North-Up direction, WindPlot must alter them by rotating them. This takes extra time to display and leads to a little degradation in the chart resolution. WindPlot will only display skewed charts when the *Include Skewed Charts* drop-down box is () checked.

Show mini chart window check box:

This will display the in the lower right of the plotter display. This requires you to make the thumbnails (mini) of the charts and will only appear for NOS/BSB raster charts. Clicking on any chart number in the list makes the thumbnails. You will be asked if you want to make a mini chart. If you select *Yes*, it will take a minute or two. If you select *No*, you are given a choice to make them all at once. If you choose yes here be prepared to wait several minutes to hours for it to finish,

Window Menu, Long Menu Features

depending on the speed and RAM in your computer. You can press the **Escape** key to halt the process but it will finish the current chart before stopping so please wait. It is not necessary to make them all at once, if you do not make mini charts the program will automatically make them for you if you have the mini-chart box on and there isn't a mini-chart for the area that is made but it will cause a one time delay when it makes it. This window is movable and sizable, just drag the left or top borders to resize and drag it when the cursor turns to a 4 point arrow near the upper-left corner. Waypoints will appear in this window. The boat or cursor position will be shown as a dot on this window at all times. Right-click this window to bring up a menu to change it.

BSB4 chart format compatibility

As of the end of the year 2003, MapTech switched to a new encrypted chart format for ALL of their BSB format charts. This format referred to as **BSB4** and requires a registration to be performed before they can be loaded in any chart program including P-Sea WindPlot. For this reason, P-Sea WindPlot users will have to upgrade or update to the new version 7.05 or better before the charts will be displayed. Once the charts are registered, they will perform much like the previous versions of the BSB format. BSB4 format files have the file extension **CAP** whereas the previous editions had the file extension **KAP**. Instructions for installing the new charts are described below. This procedure may be outdated as they are now available online for free, the free charts are always updated:

BSB4 CD Registration and Chart Installation Instructions

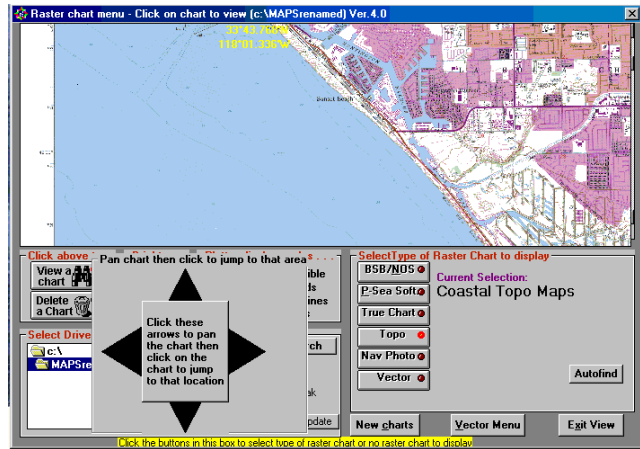
- 1) Place the chart CD in the CD drive **in the computer you are installing it on!**
- 2) In a minute, you should get a registration box. If the registration window does not appear click on the **START** button then select **RUN** and enter in the CD drive letter followed by a colon and **REGISTER** (i.e.: **D:REGISTER**) and click on **OK**
- 3) If the computer is connected to the Internet then click on *ON THIS COMPUTER, USING THE INTERNET REGISTRATION SYSTEM*, otherwise click on *ON THIS COMPUTER*
- 4) Follow the instructions from the registration window from there on. **Be sure to have the product ID code number on the post card that came with the BSB4 CD.**
- 5) You may get a prompt along the way to install Maptech's Navigator program. Be sure to Exit this if it appears.
- 6) If you have more CD's to register then repeat the steps above for each CD before proceeding to step 7.
- 7) Install P-Sea WindPlot Version 7.05 (Required for the BSB4 format) if not already installed. (Do not try to install the BSB4 charts unless you have registered them first)
- 8) Place the BSB4 chart CD in the computer and then start P-Sea WindPlot V.7.05 or greater.
- 9) Enter your start up code (SR# on the WindPlot installation CD).
- 10) Click on **NO**, when it asks if you want to go through a setup procedure (if it does).
- 11) Next a dialog box should appear asking if you want to display the charts found on the CD. Usually you want to run the charts from the hard drive and not directly from the CD so click on **NO** to install to hard drive. Click **Yes** to run directly from the CD.
- 12) If you selected **NO**, you should be a *Copy CD to Hard Drive* window. If you don't then look at the Window's taskbar for it and click on it.
- 15) Click on the *Add CD to C* to install the chart to the hard drive.

Chapter 2, Window Menu

16) If you are installing to the hard drive and have more than one chart CD, quit WindPlot and repeat steps 8 through 13 above for each CD.

BSB4 Chart View Window

You can view thumbnails in of the charts in the raster chart menu simply by clicking on one of the charts listed. Prior to BSB4, NavPhoto's and Topo charts, you would get scroll bars along the edges of the view port to move the chart around, now you see a four-pointed arrow as show to the right here. Just click on one of the arrows to move the chart in that direction. You can zoom to any location on the chart simply by clicking on it in the view port.



Copying BSB (MapTech) files:

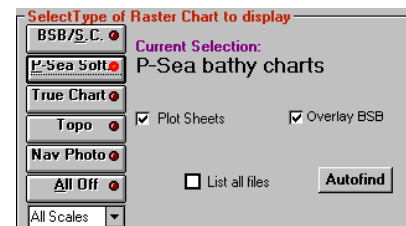
You can automatically install BSB or NOS charts onto your hard drive but when you manually copy BSB chart files, make sure to copy the file that ends in ".BSB" and all other files that have the ".KAP" extension. There can be any number of the KAP files (or CAP files for BSB4) for any one chart as they contain not only the main chart but all the inserts too. You will be able to identify the chart files by the number in front (i.e. for chart 18700, look for all files that start out with "18700").

These charts are produced by the US government from the original Mylar copy of the paper chart. Each NOS/BSB chart is about 5MB large and consists of a header file and the NOS picture file. NOS charts take longer to change plotter screens because the computer has to look at the entire file. Also, the file is compressed making it take even longer but it is about the most efficient use of disk space. MapTech distributes these charts with the BSB extension.

See **Copy BSB on CD to your hard drive** on the next few following pages if you want to install your BSB CD to your hard drive.

P-Sea Software type Bathy. charts: (and plot sheets)

These charts are split up into panels (usually 8) making them much faster to use but these charts require more disk space and more files. You can view any panel by clicking on the chart listing. P-Sea charts do not require the making of mini charts and they will not appear in the mini chart window.



There are four check/list boxes for this type of chart: Use All Scales / Std. bathy. / Fishmaps.

Click the down arrow button under the chart selector buttons to change from *Use All Scales* to *Use Fishmap* to *Use Std. Bathy*. Basically there are two types of bathy charts: Standard Bathy and Fishmaps. Fishmaps have more detail 1:100,000 scale but cover a smaller area and they also have bottom characteristics and depth contours. Standard bathy are a larger scale 1:250,000 but cover a larger area without the bottom characteristics.

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This can be used to lock different types of Bathy. charts when both are available to avoid ranging and scaling problems.

List All Files check box:

Each bathy chart is composed of 8 panels or more. If checkbox is checked it will show all panels and only the first one when unchecked. When unchecked, the list will look closer the BSB type chart list.

Plot Sheets check box:

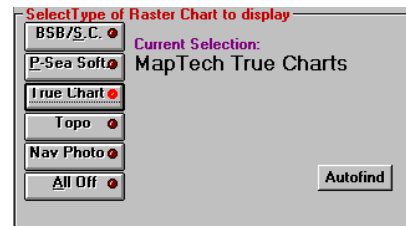
If you are using scanned plot sheets (from II Morro or Furuno paper plotters) this should be checked (°) or when wanting to display older style lower-resolution bathy. charts. It allows one to use the chart scale buttons to flip through different plots sheets scanned for the same area.

Overlay check box:

This box only appears if you have BOTH BSB and P-Sea Bathy charts. If this box is checked (°), the BSB charts will be overlaid on top of the bathy. It requires that BSB charts and Bathy. charts are setup and available for the same area. The program picks out the best BSB chart available and either expands or shrinks the chart to fit the size of the bathy chart. It would be wise to use this mode only when navigating in open waters, as the overlay may not always be accurate.

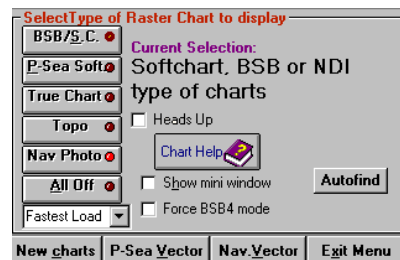
MapTech True Chart type charts:

These charts are split up into panels making them much faster to use but they require more disk space and more files. You can scale down in ranges with MapTech True charts but you can only double its normal range (that is the default range of the chart when it is first displayed). Use the Range box (F4) and check the *Double Range* check box. This box only appears when a MapTech True chart is currently displayed in the plotter view screen.



NavPhoto and Coastal Topo chart Compatibility

This new version will display the MapTech NavPhotos and Coastal Topographical charts that come in the package with the BSB4 charts. These are aerial snapshots and land topography charts that are georeferenced to work just like the BSB charts with two exception. They all have the same scale and are only along the coastline.



Use the split-screen mode to display these charts alongside the regular BSB navigational charts. Some are in color and some are black and white.

You can use the chart-finder to switch to them or simply click on the "Window" menu then select "Charts/Cartography" and then "Raster". The Raster-Chart window will appear. The *Select Type of Raster Chart to Display* section located in the lower-right of this window is where you select which type of chart to display. Simple click the second to last button labeled "NavPhoto" or select the button above that *Topo* to display these charts. You will have to still instruct the program which drive and directory the charts reside in. The charts will appear in the list above these buttons when you have selected the proper drive and directory.

Installing NavPhoto and Coastal Topographical Charts

Installation of these charts is simple. Quit P-Sea WindPlot if it is running and place the CD in the drive. Wait a minute and exit out if the *Chart Navigator* installation program appears. Then start WindPlot. The program will automatically find and install the charts after you enter your start code. You will be given the option to just display them from the CD or install and display them from the hard drive. Just follow the instructions as they appear.

- 1) Exit WindPlot version 7.05 or greater if it is running
- 2) Place the BSB4 chart CD in the computer and then start P-Sea WindPlot V.7.05 or greater.
- 3) Enter your start up code (SR# on the WindPlot installation CD).
- 4) Click on NO, when it ask's if you want to go through a setup procedure (if it does).
- 5) Next a dialog box should appear asking if you want to display the charts found on the CD. Usually you want to run the charts from the hard drive and not directly form the CD so click on *NO* to install to hard drive. Click *Yes* to run directly from the CD.
- 6) If you selected *NO*, you should be a *Copy CD to Hard Drive* window. If you don't then look at the Window's taskbar for it and click on it.
- 7) Click on the *Add CD to C* to install the chart to the hard drive.
- 8) If you are installing to the hard drive and have more then one chart CD, quit WindPlot and repeat steps 1 through 7 above for each CD.

Plotter display modes

A series of check boxes are located in the center of the raster menu that will control how a raster chart will be displayed.

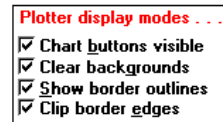
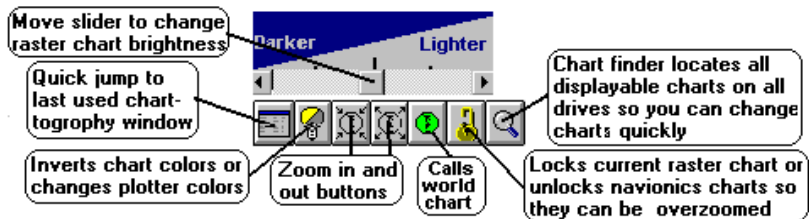


Chart buttons

Click on *Chart buttons* in this control panel (formerly known as Raster Buttons) to turn off and on the chart display buttons. These buttons affect the color and size of a chart and allows you to control what chart is displayed.



The chart buttons will appear in the lower left just above the chart number display when this category is "X'd". Clicking the first button jumps to the raster control panel if raster charts are turned on otherwise it will jump to the vector control panel (which ever was used last). The next button that looks like a chopped light bulb will invert or alter the color of the chart (white will go black and black will go white) and it will also run a red tint for night view. The next button will either cause the next smallest scale chart to appear or it will half the current range. The second to the right most button will cause either the next larger scale chart to appear or it will double the current range if a larger scale chart is not available (changes current range when no charts are select). The next green button will temporarily bring up the P-Sea world chart at which time you can use the mouse to jump anywhere in the world just by pointing and clicking. The next button will lock the current raster chart number or chart level if one is being displayed. The right most button will show all available charts and allow you to quickly switch to them.

Window Menu, Long Menu Features

A shader box will appear whenever you pass the mouse arrow over the buttons. It has a scroll bar that will allow you to change the brightness of the raster charts. Move the scroll button to the left to darken and to the right to lighten. This only affects the raster chart brightness, marks, tracks and everything else remains as bright as it was.

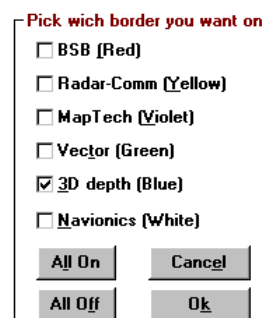
Clear Backgrounds box

Click on *Clear Backgrounds* to control the printing on the plotter screen. When this is “X’d” the background of the present position, plotter range, ships speed and heading will not have the chart behind it making it easier to read. When this is not “X’d” the readouts will appear blended in with the chart.

Show border outlines

A dashed line is drawn on the plotter screen that outlines certain charts when this is checked. The outlines are best seen by zooming out past the 500 mile limit (provided you have the world chart loaded). We suggest leaving this option off until you need them.

When you click the *Show border outlines* check box you will see a dialog box appear like the one shown here. You can turn the chart outlines on and off by clicking the appropriate check boxes. When an item is checked (°), the selected chart type will have a dashed box surrounding the borders of each chart in the file in the color indicated next to each check box. Buttons are provided for turning all or none on with one click.



Clip Chart Borders

This check box only applies to the BSB/NOS or MapTech raster charts. Both MapTech and BSB have included the white area around the edges of the charts. The edges do sometimes contain some important information about the chart but when using it for general navigation, it becomes a problem as the boat can be placed in the white area and thus lose the important chart information needed to navigate. Check this box and the program will not show the borders. This will give a clean picture as the program automatically transverses from one chart to another. However, do so will sometimes cause the vessel to be off to one side of the screen and not center as it runs on the edge of the chart.

Delete or View chart buttons on the raster menu

These buttons control what happens when you click on one of the charts that appear in the *Raster menu list*. The *View a Chart* is always the default button when you call the raster list window. If you want to delete a chart from the list, just click the *Delete a Chart* button so the light is on and delete any chart by clicking on it in the list.

Chart Brightness and Color Inverting (shown above next to View A Chart)

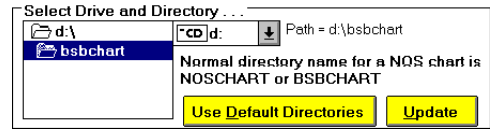
You can control just how much you want the chart to be seen in your plot. This will dim or brighten the chart to where it cannot be seen. You can still see all of the other plotter marks such as marks, tracks and all other readouts.



Just click the up or down arrows to adjust the brightness. It has a value from -210 (dark) to +210 (Light) where 0 is the normal and best for viewing the chart itself. You need to make as much as 20 to see any difference on the chart.

Changing Drive & Directory

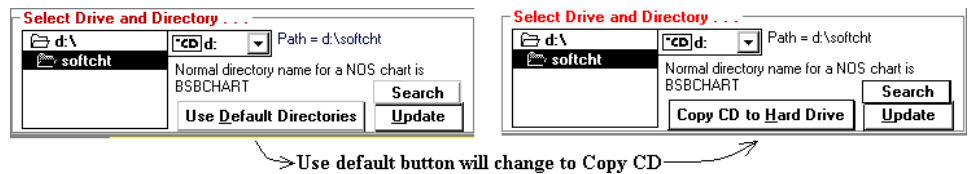
When you change a CD you will just need to click the update button to get the charts to load. However at some time you had to let the program know what drive the CD is on. The program can usually find the proper directory by itself by clicking the *Use Default Directory* button provided the charts are in their normal directory. **Always click on UPDATE after changing path or CD's!**



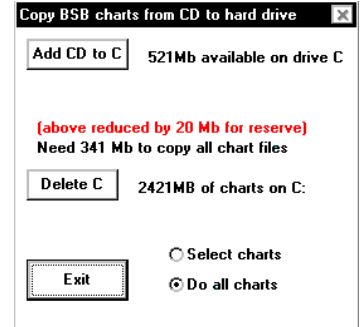
To change the drive just, click the down arrow that is located to the left of the word *Path* and click the drive letter that your charts are on. Make sure you have selected the Type of raster chart before selecting the drive. Then click the *Use Default Directories* and *Update* buttons. The charts will show on the list as soon as the proper directory and drive are found.

Copy BSB/NOS Charts from CD to your Hard Drive

If all you have is one CD then it is usually best just to run the charts from the CD drive. If you have more than one CD and a hard drive with enough room, you can load many CD's to relieve you of the burden of changing them when needed.



This simple function will allow you to copy charts from a CD to the hard drive. Hard drives are faster and larger in capacity than a CD. With a 100gig drive you can store about 30 CDS. With all the CDS in the hard drive you do not have to change them. This function will also let you choose which carts are copied if you wish or you can copy them all at once. It will also allow you to delete some or all of the charts that you have copied to the hard drive.



To copy the CD to the hard drive

- 1 Place the chart CD in before you start P-Sea WindPlot
 - 2 Close any windows that start automatically and then start WindPlot.
 - 3 After entering your SR# the program will ask if you want to copy the charts to the hard drive. Select to copy to hard drive. (This will not work if drive is set for the CD drive)
- or
- 1 First, the CD chart must be loaded in the drive and showing on the Raster chart list. See Installing raster charts.
 - 2 When the CD is properly installed, the *Use default Directories* button will change to *Copy CD to Hard Drive*. Click the *Copy CD to Hard Drive*. (Click the update if you do not see it)

Window Menu, Long Menu Features

- 3 A list will appear showing how much space you have available (less 20 mega byte buffer) on your hard drive in mega bytes. Next to the amount of hard drive space is a button *Add CD to C*. Click this button to copy the charts on the CD to the hard drive. Another button *Add CD to D* will appear below this one for those that have two hard drives. The copy function will halt should you run out of disk space. It will never use up all of the available drive space.
- 4 Click the *Exit* button when it finishes copying.

Selecting charts to copy

If you wish to select which of the charts on the CD are copied to the hard drive then click the *Select Charts* option button near the bottom right of this box. Then you will be prompted before each chart is copied.

Deleting charts from the hard drive

Click the *Delete C* button located near the center to delete charts from the hard drive. Charts will be removed from the BSBCHART directory. You can select which charts will be deleted if you have selected the *Select Charts* drive.

Searching for charts from the list

When you list charts from a CD, a *Search* button will appear above update button. Click this button to turn a text box above this button on and off. Type in anything while the box appears and the chart list will search for a chart number or description that matches it



New Charts, Vector List buttons and Exit buttons

Three buttons located in the lower right are for installing new charts (not CD's), jumping to the vector list and to exit back to the main plotter program.



Window ' Date & Time on

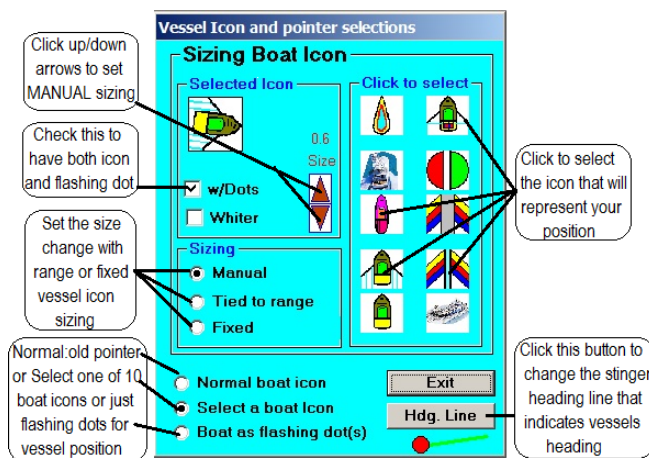
Click on the fifth item in the *Window* menu, *Date & Time on*, to toggle on or off the display of the date and time in the plotter header. We recommend not to use this function when you have Windows Vista or 7.

Window ' Heading / PP Indicator

The heading indicator protrudes from the vessels' position can be changed in many ways by this menu. This menu can also change the icon that represents the present position.

Select icons for vessel's present position

The *Heading Indicator* selection under WindPlot's *Window* menu calls up the window shown below. From this window you can switch from the old boat and flashing dot, you can select from 10 different icons to represent your vessel's



Chapter 2, Window Menu

location and you can also adjust it's size. You can manually set the size, have it adjust by range or leave it in the fixed mode.

Selecting an icon

- 1 Click on *Windows* ' *Heading indicator*.
- 2 Click the *Select boat Icon* option if not already done.
- 3 Click on any one of the 10 icons in the *Click to select* box and you will see it copied to the *Selected Icon* box. Use the arrows to examine the rotation and sizing of the selected icon.
- 4 Select the method of sizing. Use the up/down arrows to change the size if you select the *Manual* sizing option.
- 5 Click on *Exit* button when satisfied with your selection.

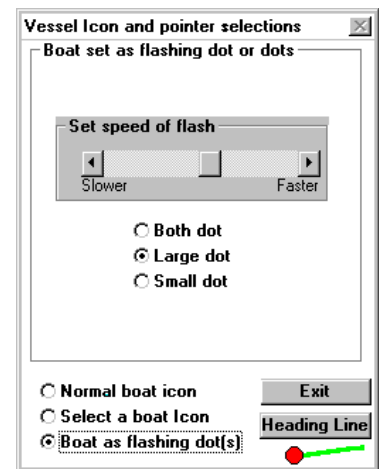
NOTE: New since version 7.21, you have the choice in *Select a boat Icon* to have a flashing dot and the icon if you check the *w/Dots* check box checked.

Selecting the Normal Icon (like old 6.77 WindPlot did)

- 1 Click on *Windows* ' *Heading indicator*.
- 2 Click then *Normal boat Icon* option if not already done.
- 3 Click on *Exit*.

Selecting flashing dot(s)

- 1 Click on *Windows* ' *Heading indicator*.
- 2 Click then *Boat as flashing dot(s)* option if not already done.
- 3 Set the flashing rate by moving the slider back and fourth.
A flashing dot is provided to show you the current speed.
- 4 Set the type of dots you want by clicking on one of the options provided.
- 5 Click on *Exit*.

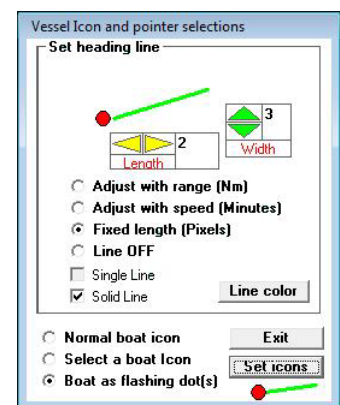


Heading line indicator

You can have a line protruding from the vessel icons to help point the way. You can control the width length of this line in several ways. You can have the length adjust to the range you are on in which case it will get smaller as the plotter range in is increased. You can have is adjust with speed and thus the tip will showing how far you will be in 40 minutes for example. Lastly, you can have it set to a fixed length in which case it will remain the same length no matter what speed or range you are on. Therefore the length will be defined in retrospective; nautical miles, knots or screen pixels depending on the line option selected.

Adjust Heading Line Color

Click the *Line Color* and click on any color from the pallet that appears. Click on *Ok* to keep the color you selected. Click the *Exit* button.



Adjust with range

- 1 Click on *Windows ' Heading indicator*.
- 2 Click the *Heading Indicator* button if you do not already have the *Set heading line* screen showing.
- 3 Use the up/down arrows to adjust to the desired width.
- 4 Select top option, *Adjust with range*
- 5 Enter in a range in the box or use the right/left arrow to adjust the range you want the line to represent.
- 6 Click the *Set Icons* button to select an icon or click *Exit*.

Adjust with speed

- 1 Click on *Windows ' Heading indicator*.
- 2 Click the *Heading Indicator* button if you do not already have the *Set heading line* screen showing.
- 3 Use the up/down arrows to adjust to the desired width.
- 4 Select top option, *Adjust with speed*.
- 5 Enter in then time in the box or use the right/left arrow adjust the number of minutes you want the line to represent.
- 6 Click the *Set Icons* button to select an icon or click *Exit*.

Fixed length

- 1 Click on *Windows ' Heading indicator*.
- 2 Click the *Heading Indicator* button if you do not already have the *Set heading line* screen showing.
- 3 Use the up/down arrows to adjust to the desired width.
- 4 Select top option, *Fixed length*.
- 5 Enter in the number of pixels in the box or use the right/left arrow to adjust the number of pixels you want the line to represent. The smallest screen is 640 x 480 pixels so set it to 700.
- 6 Click the *Set Icons* button to select an icon or click *Exit*.

Single Line

Two heading lines will appear when you hook an external compass to the program, one for the GPS and one for the external compass. Check this box to see just the external compass heading line.

Solid Line

Normally, the heading line will be the opposite color of what ever is behind the line. This keeps the heading line from blocking what is behind it and this is why the color you pick for the line is not what appears on the screen. You can override this by checking the ***Solid Line*** check box.

Window ' L/L Markers On

Clicking on *L/L Markers On*, the seventh item in the *Window* menu, will toggle on or off the Latitude and Longitude labels of the grid lines on the plotter screen. A ° will appear to the left of the item in the menu when the numbers are turned on.

Window ' L/L Grids On

Clicking on *L/L Grids On*, the eighth item in the *Window* menu, will toggle on or off the Latitude and Longitude grid lines on the plotter screen. A ° will appear to the left of the item in the menu when the grid lines are turned on.

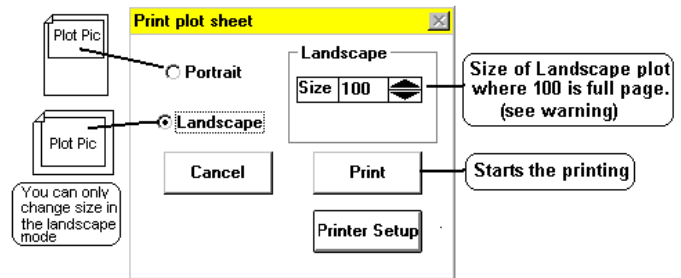
Chapter 2, Window Menu

Window ' Marks...

To keep the program as close to original as possible we have left this here. When you click this menu you will get a message that this menu list has been moved to the *Mark Search & Edit* windows menu item *Display Options*. All you need to do then is click *Ok* and then select the thing you want to do.

Window ' Print Plot

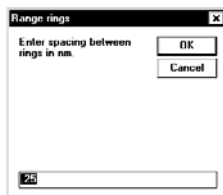
You must have a printer properly installed in Windows™ in order to use this function. Some printers require too much of the printer port time and may cause a computer crash when WindPlot checks to see if the P-Sea keys is there so make sure your marks and tracks are saved. Make sure you can print a picture from Paintbrush, which is found in the Windows Accessory program group. You can use either a color or a black and white printer. If printing in Black and White or color, we suggest that you change the ocean color to bright white to save ink. If printing in black and white we suggest that you change the land color to bright yellow.)



To begin printing a plot

Click on the twelfth item in the *Window* menu, *Print Plot*, and the Print Plot menu will appear. You have the choice of two kinds of printout, landscape and portrait. In portrait, the plot is printed across the top of the picture and is set to size. In landscape, you can adjust the picture to fit the paper. After you select landscape you will see a percentage scale. A scale of 100 should fill the entire paper. If over scaled and error could occur and you may need to restart the printer and WindPlot to get back to printing.

There is also a printer setup button that calls the Windows printer setup control for you to change your printer settings like color if needed.



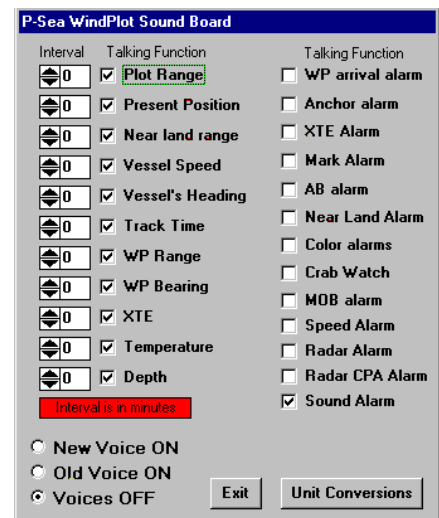
Window ' Range Rings

Click this to turn the 4 range rings surrounding the vessel on and off. It also allows you to change the distance between rings. The rings should be presents when checked (°). When activating it, simply enter

in a range from .1 to 10 miles for the ring spacing. While activated, click on the ring range label to change the ring range or to turn it off.

Window ' Sounds & Unit Conversions

Click on the *Window* menu, *Sounds & Unit Conversions*, to toggle off or on the sounds generated by the plotter program. A menu will appear like the one on the right here with many check boxes for digital voice announcements.



New Voice, Speaks help aloud and more

We have added the Microsoft Text to Speech 5.1 engine to WindPlot. This may not work for all Windows platforms unless it is installed first. If you follow the procedure below and still cannot find the “Speech” icon in the control panel then download the speech engine from Microsoft for your Windows platform. You can download a free install from www.bytecool.com/voices.com

Just click on the “Microsoft Mary, Mike and Sam 5.0” 68 Megabyte download then install it when the download completes.

The new voice is better than the old WindPlot voice in two ways; it will work in the background where the old voice would actually halt the WindPlot program while the voice was talking. Second, it will announce more things like all of the help screens if you need it to.

Activating Microsoft Text-to-Speech

- 1) Click on Windows “Start” button and locate the Windows Control Panel. For Windows 98, ME and 2000pro, you will find the control panel listed under the “Settings” menu. In Windows XP it should be right in the “Start” menu. (NOTE: It is already setup in Windows 7 and Vista)
- 2) Look carefully for the “Speech” icon in the control panel and double-click to start it up.
- 3) Now select the “Text To Speech” tab (if you not see this tab then close this window out and try and find another “Speech” icon and open it.
- 4) Under the “Voice Selection”, click the drop-down box and select from one of the voices that are listed there. You can click on “Preview Voice” to hear what it sounds like. If it doesn’t work here it will not work in the WindPlot program.

When an item is checked (°), the digital voice will make the announcement at the interval specified (in minutes) in front of the check box. The digital voice requires a sound card be installed in the computer. If you do not have a sound card then all you can do is turn on and off the master switch located at the bottom that turns off most the computer beeps.

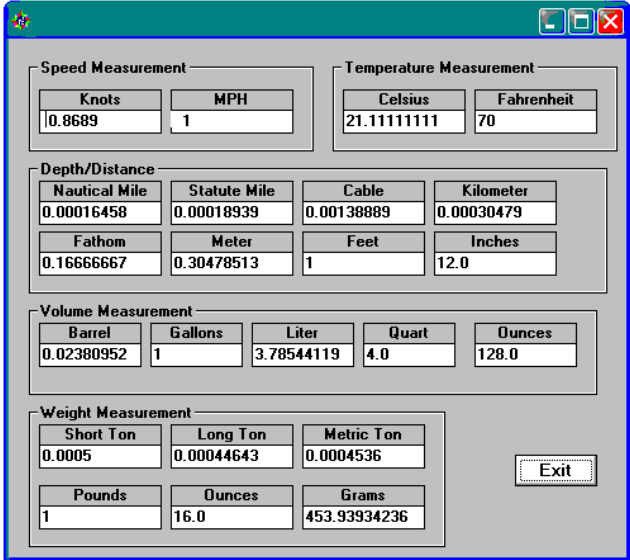
Conversion Window

A conversion window is provided If you want to convert type of unit, speed, temperature, depth, distance, volume or weight. It is very simple to operate. Just click on the white area for any known unit you want to convert to something else. Erase what is there by using the delete and backspace keys and enter in the new value. The other units update as you type, just read the values.

Click the *Exit* button when finished

To call the conversion window

- 1) Click on WindPlot’s *Windows* menu item
- 2) Select *Sound & Unit conversions*.
- 3) Click the *Unit Conversions* button at the bottom of the sound window.



The screenshot shows a window titled "Conversion Window" with several sections for unit conversions:

- Speed Measurement:** A table with columns for Knots and MPH. The value 0.8689 is entered in the Knots field, and 1 is entered in the MPH field.
- Temperature Measurement:** A table with columns for Celsius and Fahrenheit. The value 21.11111111 is entered in the Celsius field, and 70 is entered in the Fahrenheit field.
- Depth/Distance:** A 2x4 grid of conversion tables. The first row includes Nautical Mile (0.00016458), Statute Mile (0.00018939), Cable (0.00138889), and Kilometer (0.00030479). The second row includes Fathom (0.16666667), Meter (0.30478513), Feet (1), and Inches (12.0).
- Volume Measurement:** A table with columns for Barrel (0.02380952), Gallons (1), Liter (3.78544119), Quart (4.0), and Ounces (128.0).
- Weight Measurement:** A 2x3 grid of conversion tables. The first row includes Short Ton (0.0005), Long Ton (0.00044643), and Metric Ton (0.0004536). The second row includes Pounds (1), Ounces (16.0), and Grams (453.93934236).

An "Exit" button is located at the bottom right of the window.

Chapter 2, Window Menu

- 4) Click on one of the white boxes and enter in a value to be converted.

Window ' Split Screen

Note: Do not use *Split Screen* with 3D or Radar split screen.

Basic: Turning split on and off

- 1) Click on *Window* ' *Split Screen* in the plotter menu bar.
- 2) Set the range, type of chart and data you want to display on the left.
- 3) Click on one of the four rectangles in the top section to set the type of split.

Note: You can also press **Shift-S** with the cursor off to change split screen modes.

Why: The advantages of split screens are many. It allows you to show different types of charts at the same time. This would be especially handy for bathymetric charts since they become blocky looking when zoomed in, making it hard to see your hangs and tracks.

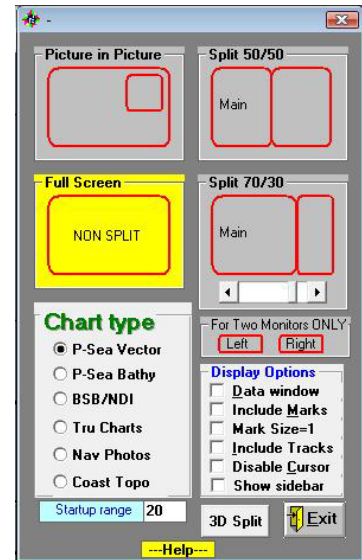
By using the split screen, you can see the Bathy. on one side in the normal range and your marks and hangs on the other zoomed in as close as you want. Another would be using different ranges at the same time.

Running on a very small range it is hard to tell where you are in relation to land. Try the split with one side set to very small and the other on a range that allows you to see land so you have a quick reference to where you are.

How: Click on *Window* then *Split Screen* to call the *Split Screen Menu*. You will see four types of screens you can pick from represented by rectangles. Simply click on any one of them to select that type of split.

Where: The upper left is the Picture in Picture, upper right is the 50/50 split and the lower right is the adjustable split. Just slide the scroll bar to adjust. The lower left is for full screen (non split) operation. When the screen is split in the 50/50 or adjustable split mode, the left side is the working side. Think of it as the main screen where you do most of your work. Changes made in the normal WindPlot menu and other normal controls will only affect this screen. The screen on the right is the slave, and takes directions from this menu only. Click on the appropriate options in the lower section to select what you want displayed on the right split screen.

Setup: The left split section (or the little window in Pic n Pic mode) must be setup before starting the split mode. You must tell it: type of chart, range and what data (tracks and marks) you want displayed. You also have the option of a data window to be displayed. When this is turned on, the information that is normally printed on the plot screen such as present position is pulled off and placed in a separate window in the upper right. This window does not appear in the Pic n Pic split mode.



Split Window Menu Described

Type of Split Screen (top four boxes):

There are three types of split screen shown graphically in the split screen menu. Clicking on any one of these will cause that type of split screen to happen in the plotting mode. Click on the NON-SPLIT box to cancel the split screen mode. Experimenting with this will not cause data loss.

Chart Type

This row of option buttons allows you to choose what type of chart you want displayed in the slave or right window. Charts must already have been loaded and previously setup (drive and directory set up) in the normal plot mode. This will not allow you to switch chart CD's without displaying them in the left window first. Once setup, the left window can be setup for another kind of chart or just turn charts off completely just like you would in full screen mode.

For Two Monitors Only

IF YOU HAVE TWO SEPARATE VIDEO DISPLAYS on one computer and they are setup so that you can display a different program in each display then you can click on the *Left* or *Right* boxes in this part of the split screen window to have the split screen go to a split monitor mode where the left side shows one type of chart then the other monitor will show the other.

To split two monitors

If the non-split mode is displayed on the left monitor then you want to choose *SPAN RIGHT* otherwise choose *SPAN LEFT*.

Data Window check box:

When this box is checked (°), all data that is normally displayed in the plotter screen like present position, speed and heading is moved to a separate window in the upper right.

Include Marks/Tracks check boxes

Marks and tracks will only display on the slave/right screen when these check boxes are checked (°).

Mark Size = 1 check box

Normally the mark size on both split screens are the same size. Since the right split screen usually is smaller, you can check this box to force the marks on the right side to the smallest size regardless of the mark size on the left side.

Disable Cursor

This handy check box will disable the cursor from coming on in the slave/right plot screen. This means you can turn the cursor on, pan around where ever you like on the left screen and still watch your plot on the right.

Show sidebar

Typically, data like present position, ship's speed, heading and so on are overlaid directly on the plotter screen. This gives more plotter display but for some reason you may wish to separate the data from the plotter display and that is what this check box "Show sidebar" is for. When checked, it removes all of

Chapter 2, Window Menu

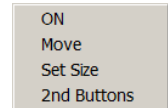
the data displays and presents them in a separate panel on the right side of the plotter screen. One reason you may wish to do this is if your video display causes a blinking effect of the data readouts, turning on the sidebar in this instance would resolve the problem.

Startup range

This is the range you want displayed in the slave/right plot screen. When using P-Sea charts it is a magnification level of .1-4.

Window ' Button Bar...

Clicking on the fourteenth item in the *Window* menu, *Button Bar...*, will call a sub-menu for the button bar.



Window ' Button Bar... ' On

Click on the *On* in this sub-menu to toggle the Button Bar on or off. A check will appear to the left of the item in the menu when the Button Bar is on.

Window ' Button Bar... ' Move

Clicking on *Move* in this dialog box transforms the mouse arrow into a four-pointed arrow. Place this arrow on the *Button Bar* and drag it wherever you want it.

Window ' Button Bar... ' Set Size

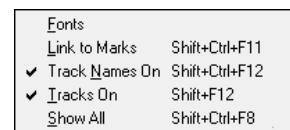
Click this item and enter a number from 0 to 9 where 0 is the smallest. This will resize all on-screen button controls.

Window ' Button Bar... ' 2nd Buttons

Click on *2nd Buttons* in this sub-menu to alternate between the two button bars provided. Both button bars are explained in detail in short menus chapter.

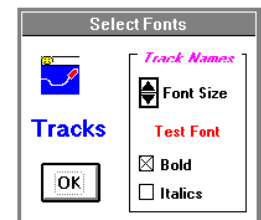
Window ' Tracks...

Clicking on the third from last item in the *Window* menu, *Tracks...*, will call the sub-menu shown to the right to control how all tracks are displayed.



Window ' Tracks... ' Fonts

Clicking on *Fonts* in this sub-menu calls a dialog box that allows you to control the size and shape of the letters used in the track names as they appear on the plotter screen.



Click on the font size buttons in this dialog box to change the size of the letters and use the boxes below to select either the bold or the italic font. The print under the size buttons shows how the print will look on the screen. (Note: These changes are saved in the plotter INI file so that the fonts will be the same the next time the plotter program is run.)

Window ' Tracks... ' **Link to Marks**

Clicking on the second item in the *Tracks* sub-menu, *Link to Marks*, calls a dialog box that allows you to toggle track-mark linking on or off. A ° will appear to the left of the item in the menu when the link to marks function is turned on. When linked the track name is added to the marks' description and thus enables you to link the marks to a track and turn on or off these marks by turning on or off the track. Each mark made with a track name in its name will have an ascending number assigned to it. This number will appear next to the mark on the plotter screen.

Window ' Tracks... ' **Track Names On**

Clicking on the third item in the *Tracks* sub-menu, *Track Names On*, allows you to toggle on or off the display of track names at the beginning of the tracks on the plotter screen. A ° will appear to the left of the item in the menu when turned on.

Window ' Tracks... ' **Tracks On**

Clicking on the third item in the *Tracks* sub-menu, *Track Names On* will toggle the tracks on or call a dialog box that asks you if you want to save the present track. Click on the *Yes* in this dialog box to save the track and toggle all tracks off. Click on *No* to turn tracks off without saving present tack. You may click on cancel to avoid turning tracks off.) A ° will appear to the left of the item in the menu when the tracks are turned on. (Note: Using this function to turn off tracks will erase all tracks from RAM memory, but previously saved tracks will remain on your hard disk.

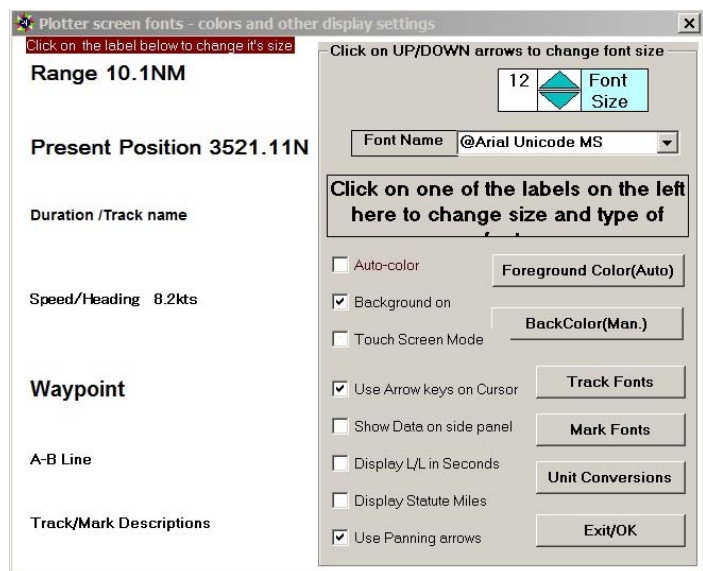
Window ' Tracks... ' **Show All**

The program allows you to selectively hide some tracks from being display in the plotter screen. This function allows you to override this feature and display the tracks regardless of their display status.

Clicking on the last item in the *Tracks* sub-menu, *Show All* will toggle on or off showing all the tracks you have on your hard disk. A ° will appear to the left of the item in the menu when the *Show All* function is turned on.

Window ' **Window Fonts & Units**

This controls both the print size (font size) and type of print (font name) of all readouts on the plotter screen. You can also manually control the print (font color) and background colors for better contrast. A check boxes is provided to change the present position display seconds. Another check box is provided to change the ranges to display statute instead of nautical miles (default). Lastly it calls a unit conversions window.



Chapter 2, Window Menu

Changing fonts in full screen mode

In full screen mode, you have individual control of seven screen printouts: Range, Present Position, Track Duration/Name, Vessel Speed/Heading, Waypoint/A-B Line and Track/Mark Descriptions. You can have different font sizes and names for each, but they must all be the same color.

- 1 Click on *Window* in the WindPlot menu bar.
- 2 Click on *Window Fonts* near the bottom of the list.
- 3 Click one of the 7 readouts to activate it for changing.
- 4 Click the down arrow and click on one of the names to change the type of print.
- 5 Click on one of the Up/Down arrows to change the size of fonts.
(The readout will change to reflect the choice you have made.)
- 6 Click on another readout to change or click on the *Exit/Ok* button when finished.

Changing fonts in Split Screen mode

Just follow the same procedure as for changing fonts in full screen mode, except you change all readouts at the same time.

Changing font colors

Normally, the program attempts to automatically adjust the color of the readouts to work best with what color the charts are. However, to manually change colors just open the font window like you did for changing fonts, except click on either the *BackColor* or *ForeColor* color buttons and select the color you desire. The fonts samples will change accordingly. If you wish to go back to automatic, click on the *Cancel* button when in the color dialog box.

Background ON checkbox

A check box *Background Color* is located in the lower-right of the Font Window. When this is checked (°), the readouts on the plotter screen background will be a solid color. Otherwise, the readout is blended with the chart in the background.

Touch Screen Mode checkbox

Check this box if you want to use a touch screen then exit. This will cause the track and mark menus to be replaced by buttons and the buttons on the screen will be turned off except a touch button. When you touch this button the rest of the on-screen buttons will appear.

Use Arrow keys on Cursor checkbox

Usually you will leave this checked so that you can use the keyboard arrow keys to move the cursor but sometimes you might need to uncheck this if you have windows disappearing on you.

Show Data on Side Panel checkbox

Check this box if you would like to clear the plotter screen from any of the readouts like present position, range, speed and heading.


Display Lat./Long. with Seconds checkbox

By default, anytime Lat./Long is displayed it is broken down to just Degrees and Minutes. In real Lat./Long world, it is displayed in Degrees, Minutes and Seconds. Checking this box forces all Lat./Long. readouts to display seconds.

Display Statue Miles checkbox

By default, all range readouts are displayed in Nautical Miles. When this check box is checked (°) all range readouts switch to Statue Miles, a slightly shorter distance.

Use Panning arrows checkbox

Normally, this is checked to allow instant panning from one area to the next when you see the mouse arrow change to PAN with a arrow pointing the direction  the screen will pan to and then click. Otherwise you will need to turn the cursor on first then drag the cursor to one of the edges of the screen in order to pan. Un-check to disable this function.

Tracks and Mark Fonts Buttons

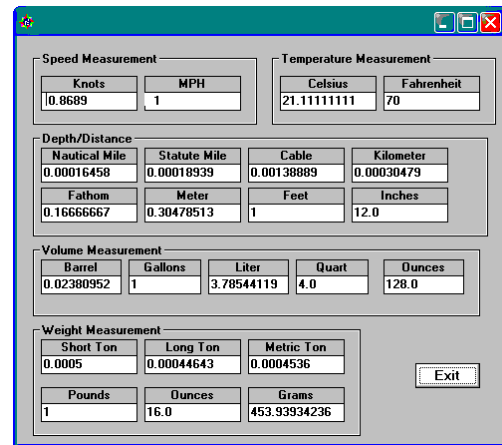
These are just shortcuts to the mark and track printing settings. See the *TRACK* and *MARK* menus in the *Window* menu.

Unit Conversions Buttons

Click the *Unit Conversion* button to call the window Shown here to the right. This window is just for converting any units of measure from one to another. Simply type in the box you know and the other related boxes will update right away.

For example, click the white area of the top-left box *MPH*, use the del & backspace keys erase what is there and type it 1. The *Knots* box changes to .8689

Just click the *Exit* button to return to plotting.



Speed Measurement		Temperature Measurement	
Knots	MPH	Celsius	Fahrenheit
0.8689	1	21.11111111	70

Depth/Distance			
Nautical Mile	Statute Mile	Cable	Kilometer
0.00016458	0.00018939	0.00138889	0.00030479
Fathom	Meter	Feet	Inches
0.16666667	0.30478513	1	12.0

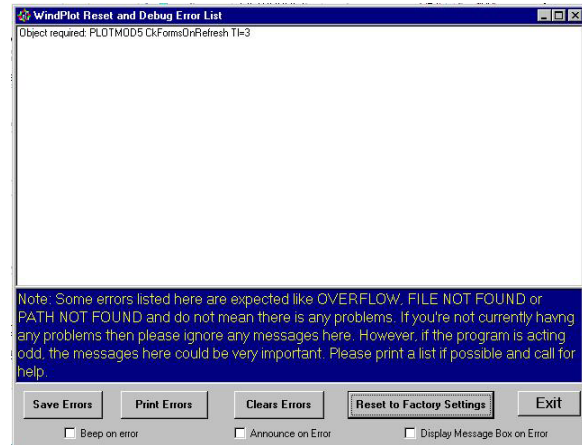
Volume Measurement				
Barrel	Gallons	Liter	Quart	Ounces
0.02380952	1	3.78541119	4.0	128.0

Weight Measurement		
Short Ton	Long Ton	Metric Ton
0.0005	0.0004643	0.0004536
Pounds	Ounces	Grams
1	16.0	453.93934236

Exit

Window ' Reset ALL/Debug

Any error in any of the components that make up WindPlot are displayed here. Errors do occur naturally in the program while it handles files that are not there, COM ports that are busy so unless you are experiencing some problems you should ignore any messages here. However, if your program is not acting right, the messages listed here can help to figure out what is wrong. The message contains the actual error that occurred, the module that is occurred in and the number of times that the error has happened.



Object required: PLOTMOD5 CkFormsOnRefresh Tf=3

Note: Some errors listed here are expected like OVERFLOW, FILE NOT FOUND or PATH NOT FOUND and do not mean there is any problems. If you're not currently having any problems then please ignore any messages here. However, if the program is acting odd, the messages here could be very important. Please print a list if possible and call for help.

Save Errors Print Errors Clears Errors Reset to Factory Settings Exit

Beep on error Announce on Error Display Message Box on Error

To further aid in finding errors, you can check either the Beep on error or Announce on error check box. When checked you can operate the program and you will know when the error occurs. This could be a big help to know when the error occurs. Click the Save Errors button to save the error list to a text file that you can email to the tech help department.

If you still can't figure out what is wrong then you can try resetting the program to the factory default settings by clicking the *Reset to Factory Settings*. It will require you to restart the computer then you will need to change it back to the settings you had prior to doing the reset. Marks and Tracks are not effected by the reset.

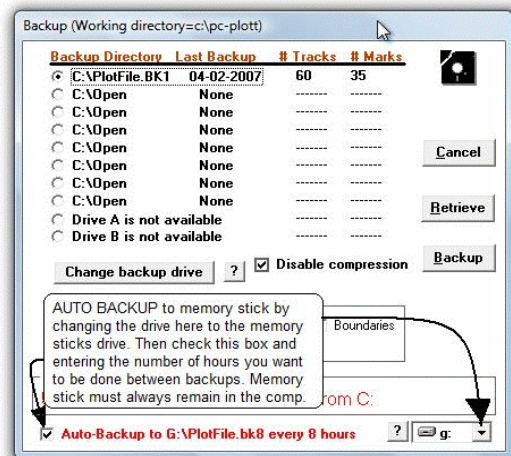
Backup Menu



(Caution: **Do not use this for saving marks and tracks you wish to share to disk, see the section on *Data Menu* for this!** When you retrieve the data from a backup disk, it *replaces* all data in the PC-PLOTT directory with no chance of recovery of the old data). Backup was designed to give your data back in case of an emergency.

Backing Up

Click on *Backup* ¹ *Do Backup* in the plotter menu bar to call the *Backup* dialog box. This dialog box provides for two types of disk backup: backup of all marks and track data to eight other areas of your hard disk, and backup to other hard drives or memory sticks. We suggest that you use both types of backup on a regular basis. Click on the one of the first eight dots that contains the oldest backup to backup to your hard disk. (Note: You can start with the first one.) Then click the *Backup* button.



Auto-Backup

Auto-Backup will backup all data files including track, mark and setup files on a timed basis. The best way to do this is to set it up to backup every day or so to a memory stick. That way in the event of a hard drive failure your data is safe on the memory stick.

To backup to a floppy disk (floppies had little space so are obsolete, use a memory stick instead), click on the appropriate floppy drive (*A:* or *B:*) and then click the *Backup* button. To retrieve backup data from any one of the eight backup files on the hard disk, click on the corresponding dot and click on the *Retrieve* button (note: **you should only need to use the backup data in the event you have a major failure where you lost all of your data** do not use this for exchanging data with another machine). To retrieve backup data from a floppy disk, place it in the appropriate floppy drive and click on the dot that corresponds to the floppy drive and then click the *Retrieve* button.

Include(d) files:

The backup menu has four check boxes that allow all WindPlot related files to be backed up. This way, should your computer ever fail, you can reload all of your previous setup and TD calibration files with little effort. Any one of the four items, *Setup files* (color, charts on, screen modes), *TD calibration files*, *Routes* and *Vector charts* can all be included with the normal Track and Mark backup files. The only files it does not back up are raster type charts including our bathy., plot sheets and BSB charts. Navionic charts are also not backed up.

Where there is too much data to fit on one floppy (obsolete)

When there is too much data to fit on one floppy you will need to have a second blank floppy ready. It is best not to reuse a backup a second time if your using a two floppy data pack. A file may be too large to fit a second time you do a backup on the first disk and you may loose some data. Diskettes are cheap! Use new blanks each time since it is important data! Just be sure to properly label each disk with number disks and date. There is not telling what will happen if you mix up a two disk backup set.

Help Menu referred to that description which begins at the end of the **Short Menus** section.

Chapter 3 Installation

This chapter is concerned with the installation of the computer on the vessel, not with the installation of *P-Sea WindPlot* on your computer. The installation of the program is covered in *Chapter 1: Getting Started*.

Installation of your computer is not a trivial matter. There are many settings to be made and checked. Acquiring cables with the required ends may take significant time. Expect to spend 24 hours or more making the installation and working the bugs out of the integrated system.

The five steps required for satisfactory installation are listed below. If you have questions that are not answered by these instructions, contact your dealer or P-Sea Software.

1. Obtain a plug that fits your NAV. receiver.

This plug may not be generic and may have to be ordered from the manufacturer of your NAV. receiver. It does not come with the plotter program. Some units like the Furuno GP31 does not need a plug since the NMEA data comes out of the loose wires in the power cord.

2. Connect this plug to special cable.

Connect this NAV. receiver plug to the cable supplied with the plotter program. The white/blue wire in the cable is the positive or signal lead. The blue/white wire is the signal return (they can be reversed). The bare wire is the shield and should go to the chassis of the NAV. receiver or as instructed by the receiver manual. ***Be sure to use the cable supplied with the program. This cable has a converter built into it to convert the NAV. 'S RS422 signal to the computer's RS232 format.*** Note: an ohmmeter will show no continuity between the pins and the wires. When connection to a NAV receiver that is already outputting RS232 you must install a diode in series so only the positive pulse gets through.

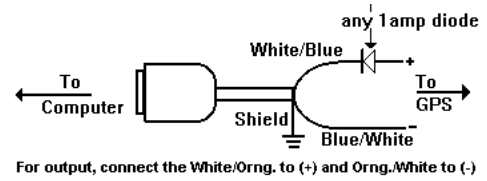
3. Instruct NAV. receiver to output NMEA 0183.

Consult the operator's manual for your NAV. receiver to find out how to get it to output in the NMEA 0183 format. The receiver may have more than one kind of NMEA 0183. If so, find the one that has ****VTG**, ****WPL** and ****GLL** included (or ****GGA**). Use version 2 or better if you can. If you are not sure, you can experiment to see which output works after you have connected the computer to the NAV. receiver as directed in step 4. You cannot hurt the computer or the program with incorrect data.

4. Connect the cable to your computer and start up P-Sea WindPlot.

Plug the cable into the NAV. receiver and try to plug the other end into the computer. DO NOT PLUG IT INTO THE KEY. Count the pins on the serial cable. If you do not see a 9 pin male plug on your computer look for a small rectangular slot about 1/4 by 1/2 inch labeled **USB**. This is a new type of port and you need a USB to Serial adaptor.

These can be purchased from just about any computer store. Ask your WindPlot dealer if he stocks them (THESE USB TO SERIAL ADAPTORS REQUIRE DRIVER SOFTWARE LOADED OR THEY WILL NOT WORK). Our cable will plug into the USB adaptor (it must be our latest cable. A label with our compass rose logo and the letters I/O on it can identify our latest cable). If the output of the GPS goes negative (as RS232 does) at all then use the diode as shown in the diagram.



5. Check the system.

If all goes well, the program should lock onto the position in a matter of seconds. When this happens, the flashing dot (the boat cursor) moves to a point on your screen that corresponds to your present Latitude and Longitude. **There will be an asterisk(*) flashing on and off next to the Latitude readout in the P-Sea WindPlot position readout when position data is being received by the computer.** The asterisk should blink at the same rate that the data is coming out of your NAV. receiver. It goes off once and on once for each time it detects the position information (GGA or GLL). An indication that the program is receiving proper data is that the heading marker that comes out of the flashing boat cursor will probably indicate something other than straight up. The COM port adjust window will appear if no GPS is detected within 30 seconds of starting WindPlot asking if you want to scan for data.

Windows XP, 7 and Vista users BEWARE: These users must start the computer BEFORE you turn on your Loran, GPS, and Temp. gauge or any other device that is going to the computer or the mouse and menus will jump around.

For another check, enter a waypoint into the NAV. receiver and see that the plotter program picks it up and shows the range and bearing to the waypoint in the lower right of the plotter screen with the word **Waypoint**.

If you are unsuccessful in getting the program to receive the vessel's position from the NAV. instrumentation, try the following before you give up and ask for help.

- 1 Whatever you try, remember to wait a couple of minutes to see the effect before trying something else. First, turn off or exit any other programs running (in either DOS or Windows).
- 2 Try plugging the plotter cable into another serial port if one is available, but do not unplug the mouse.
- 3 For Windows 98 or ME, try swapping the mouse and plotter cable around if they are both the same pins. You will need to reboot the computer. If the mouse doesn't work then you need to setup the bios for a second serial port.

Installation

- 4 Try another serial card if you have one, as some are sometimes incompatible.
- 5 Use a voltmeter set for 5 to 15 volts DC range. Put the positive lead on the serial cable's white wire and the negative lead on the green wire. The meter should occasionally flicker in the positive direction. If no movement is observed, try a lower DC range on the voltmeter. If it still doesn't move, then either you have a bad output or the NAV. receiver is not programmed to send NMEA 0183 output. Recheck the NAV. operator's manual to see that you have turned on the port and have it set correctly. If the meter flickers in the negative direction, then switch the leads of the serial cable.
- 6 You cannot hurt the serial cable by hooking it up wrong as long as you use only the green and white wires. Use the voltmeter to find another output on the NAV. receiver that flickers and connect up there.
- 7 Do not use the same serial port for anything else. Some programs like the Weather FAX have a male/female plug to allow two things to connect to one port. The plotter program will not work if any other device is plugged into the same port. If you have the P-Sea key plugged into the serial cable, then move it to the printer port where it was intended to work.
- 8 Click the *Device Manager* button and look for *Ports COM and LPT*. Click the + in front of this category to expand it's view. If you do not see this category then your serial adaptor is not installed properly. If it is, then try changing the COM# to 8 or 9 by right-clicking, select *properties*, then select *Port Settings*. Locate the *Advanced* button and change the COM#. Close all windows and restart the computer before trying WindPlot again.

To select a COM port:

We do not suggest to change COM ports unless you are sure you need to.

- 1 Click on *Adjustments* in the plotter menu bar to call the *Adjustments* menu.
- 2 Click on the 4th line, *Change COM port/Time* to call the *Adjust COM port* dialog box.
- 3 In most all cases, COM ports are set 1-4 and the program needs no adjustment. If you feel you still need to adjust it then click on the RED label that has the COM number and pick one from the list. Data will appear in the data view box when it is properly set.

If the program is not responding properly, change NAV. output again (step 3) before you call for help. If you are unable to solve the problem, contact your dealer or the customer service number located in the front of this manual.

Some of the new computers are coming out without the serial ports configured and thus they will not work no matter what you do. We suggest calling the computer manufacturer or the person you purchased the computer from to see if they could help you.

You can also send the computer mainframe P-Sea Software Co. and we will get it going for you at no extra charge so long as no parts are needed to get it going.

Connecting additional instrumentation

The output of a fluxgate compass, a fathometer, a radar, American Pioneer fish-finder with bottom discrimination or a temperature gauge can be reported on your plotter screen. Instructions for achieving these results follow.

Installation

The program must lock onto a NAV receive first before it will display any other data. . Then a special serial cable that converts RS232 signals to RS422 signals or a serial multiplexer must conduct the signals. This extra cable or multiplexer is an option that is not supplied with the program.


Fluxgate Compass

A **\$HCHDM** output is required. Connect it through a second serial port. Start the program and wait a few minutes. Then note the upper right of the screen. Change the heading of the boat, or if that is not practical, rotate the loosened compass and watch the vessel's heading on the screen to see that the compass is working.

Fathometer and temperature gauge

A fathometer or temperature gauge with **\$SDDBT** and/or **\$YCMTW** output can provide information that the program will display numerically. *The program can also use either of these values to change the colors of a track as it is drawn.*

Radar

A radar with **\$RARSD** and **\$RATLL** can send a target to the plotter for tracking. The **\$RARSD** signal will cause the following cursor  to show on the plotter screen wherever the cursor is on the radar.

When the **\$RATLL** signal is received from the radar, a mark is automatically made on the screen. On some Furuno radars this is done by holding the Enter key for three seconds.

American Pioneer Option

American Pioneer use to make depth sounders and sonar's with Biomass, Bottom Hardness and roughness data outputs. This data was fed to a WindPlot program that has the American Pioneer option activated. Now you can get the JRC units with this data or use the P-Sea FishFinder to get the hardness.

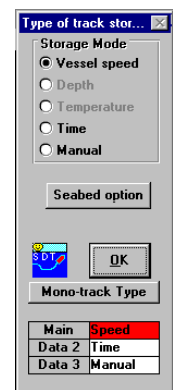
WindPlot will record this data and provide a display with a trend indicator for all three. The track color can also be setup to change colors as one or all three of the AP inputs change. As enough data is recorded, the background of the plotter will appear in different colors for any one of the data types.

AP Installation:

All that is needed to install the software is a code number you can purchase from your local marine electronics dealer. The AP option list for \$300 USD.

To enter the code number:

- 1 Click on *Tracks* in the WindPlot Menu bar then select *Current* then *Type*.
- 2 Click on the *Seabed Option* button.
- 3 Enter the code number that you purchased.



When properly activated, the *Seabed Option* button will disappear and the three new data types: *Biomass*, *Bottom Hardness* and *Bottom Roughness* will now appear in the data type list. There is no readout except for the *Trend Indicator*.

Installation

To get the *Trend Indicator* on

Select any one of the three data types provided by the fish-finder that has bottom characteristics. Then select the *Multi-Track Color* mode (**F3**). From the *Multi-Track Color* window you will see a *Trend Indicator* check box. The trend indicator will appear in the lower left of the plotter screen when clicking on it checks this box.

AP Setup:

You will need a multiplexer show above to connect the BC fish finder to WindPlot (a second serial port will NOT work!). Then just connect your GPS and fish finder with bottom characteristics to the multiplexer and plug the 9 pin D connector to your computer. NOTE: The P-Sea FishFinder interfaces directly with WindPlot so interfacing it isn't required to get the BC readouts.

In order to make this connection, you will have to obtain a second serial cable to add a second serial (COM) port. You may also have to obtain another serial card. (You cannot connect two items to a single serial port without some kind of external multiplexer.)

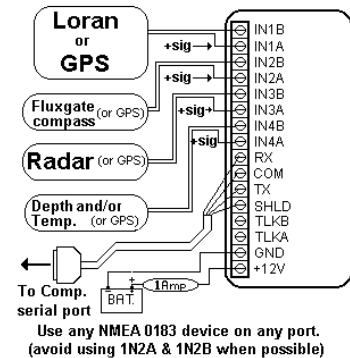
To activate (or deactivate) a second COM port:

- 1 Click on *Adjustments* in the plotter menu bar to call the *Adjustments* menu.
- 2 Click on the fifth line, *Change COM ports* to call the *Adjust COM port* dialog box.
- 3 Click on the desired COM ports *Disable* check box to deactivate or activate (check=active).
- 4 Click on the *Exit* button to exit.

When the connections are correct, the depth and temperature will show in the upper right of the plotter screen just under the vessel's speed.

Using the Serial (or USB) Multiplexer

Things are a little different when you use the serial multiplexer as opposed to the cables. Only one COM port is needed, polarity is now important and 12v DC power is required. The multiplexer gives the advantage of up to four NMEA 0183 devices can be hooked up. It is a self-running computer that combines the data coming in so that no data is missed. Because it is powered by 12v, there are fewer problems with other serial devices, such as modems, interfering with it. Sometimes strong RF signal can get to it so keep the wires clear from radio antennas and coax such as SSB's. If it does get to it, usually you just have to unplug the 12v from the multiplexer and it will reset.



Hook up

Hook 12 volts as shown and watch the polarity of the NMEA 0183 signals. If it does not work the first time then try reversing the A/B leads. Note that any of these ports 1-4 are interchangeable. The Loran can go on IN4.

Chapter 4

Loran Set-up Guide

While operating from a GPS

In this section you will learn:

- Why you need to calibrate the program for Loran
- How to get the program in condition for a Loran calibration
- How to adjust the Grid line type, color, spacing and density
- How to do a Loran calibration
- How to change and delete existing calibration points

Yes, you can efficiently use the plotter in full Loran-C mode while the program is connected to nothing but a GPS. This is not only true but also a must if you want to continue using your TD hangs after Loran-C is shut down. When the program is properly setup, it will guide you back exactly over your old TD hangs. It will require many calibrations as you move from area to area. It will be accurate ONLY in the areas you get calibrated. The program will save these calibrations and automatically call them back up as you go back to the areas you have already done. If you do not have any calibrations, an alternative ASF option will get your TD's a lot closer, almost as close as a recalibration in most areas. See "*Options*" > "*Conv. TD to LL*" section for details on the ASF option.

Getting ready for calibration

If this is the first time you have used the program for Loran-C mode you will need to get a few things ready before you can calibrate it. First you must turn on the TD grid on order for the hangs you enter to be adjusted to the proper position. Second, you must set the GRI and Slaves that you are use to using. Third, you must decide how many TD pairs you want and setup up the BIGTD files accordingly. Forth, you must setup how you want the Loran grid to be displayed. Fifth, you must set the plotters present position readout to show Loran TD's.

1 Turn the TD Grid On

If the TD grid is not showing it will have to be turned on first.

- A Press and hold the **Ctrl** (control) key and tap on the **G** key on the computer keyboard. If your TD grid is off you will get a message box that says *The TD grid needs to be set to AUTO. Would you like this done for you?*

NOTE: Every time you start WindPlot the grid will be off until you change range or press the **Home** key on the computer keyboard.

Chapter 4 - Loran Set-up Guide

- B Click on *Yes* to turn the grid on. This will call the TD calibration dialog box.
- C Click on *Cancel* because at this point since we are not ready to do the calibration yet.

2 Set GRI and Slaves

If the GRI or Slaves are not the ones you normally use then you will need to set them up.

- A Press **Ctrl-A** (hold the **Ctrl** key down then press the **A** key and let go) or click on *Options' Conv. TD to LL* to call the TD conv box.
- B Click on *Set GRI* button. A panel should drop down labeled *GRI SETUP*.

The screenshot shows the 'GRI SETUP' dialog box. At the top, the 'Current GRI' is set to '9960 NORTHEAST U.S. CHAIN'. Below this, there are two checkboxes: 'Show Chain and slave locations on world map' (unchecked) and 'Closest Chain' (checked). The 'Slave Station Selection' section contains four checkboxes: 'W 13797.2' (unchecked), 'X 26969.93' (checked), 'Y 42221.65' (checked), and 'Z 57162.06' (unchecked). The 'TD correction factors (Microseconds)' section has two input fields: 'X' with '0.00' and 'Y' with '0.00'. There are also checkboxes for 'New delays' (unchecked) and 'Show both' (unchecked). The 'Est. Position (within 200 miles)' section has two input fields: 'Est. Latitude' with '34°35.816'N' and 'Est. Longitude' with '121°06.031'W'. A checkbox for 'Use Present Position' is checked. At the bottom, there are 'Apply' and 'Setup TD grid' buttons, and a checkbox for 'Use double precision TD's' (unchecked).

- C Select the *Current GRI* by clicking on the down arrow and then click on the desired chain that appears in the list.

Set the slaves you desire in the *Slave Selection* box. You may need to click on the one slave that is already checked and you do not want in order to check the one you want.

- D If you want to just use a higher accuracy than just 1/10 of a microsecond the check the *Use Double Precision TD's* check box located under the apply button. This will generate TD calculations to 1/100 of a microsecond.
- E Click on *Set Grid* **and** then *Apply* buttons from the *TD Grid Setup* panel that drops down. The *Apply* button is located in the lower left of the *TD Grid Setup* box.

Click the *Exit* button and when the screen redraws, the TD lines for new GRI/Slaves should appear if they are turned on.

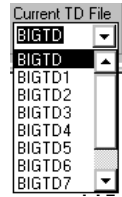
Dual-delays for 9960 Loran-C chain: On January 17th, 2007 the Coast Guard decided to alter the TD delays for the 9960 South-East loran chain. This means any TD reading taken after this date will not be correct unless you switch to the newer TD delays. To accommodate for this you will now notice a new check box in the GRI setup window as "NEW DELAYS" in the TD delays section. Just check this box to use the new delays. You will also notice a "Show Both" check box. With this checked the program will draw a mark at both new and old TD's. It requires that the mark have the actual TD readings in the mark's description column as it is done when you convert a TD to LL.

3 Multiple TD calibration files

If you are using different combinations of slaves and/or GRI's to do your TD calculations for the same area, it is best to keep the same GRI Slave pairs in the same file using a multiple-file system. Once they are setup, just call the different BIGTD files from BIGTD1 to BIGTD9 to switch between the different slaves. The slaves will change as soon as you call the BIGTD file. You then calibrate or convert your TD's and all calibrations are kept to that file, not disturbing the other files. The "T" key will then toggle between BIGTD and BIGTD1 with just one keystroke.

Switching BIGTD files:

- 1 Call up the TD calibration window by pressing **Ctrl-A**, then click the *Set Grid* button.
- 2 Click the down arrow at the bottom-right and select one of the BIGTD# files.



Toggling BIGTD files (the T key):

- 1 Pressing the **T** key on the computer keyboard will automatically change the TD grid between BIGTD and BIGTD1 files. Cursor must be off and TD grid must be on and set to AUTO.

4 Adjusting the Grid line type, color, spacing and density

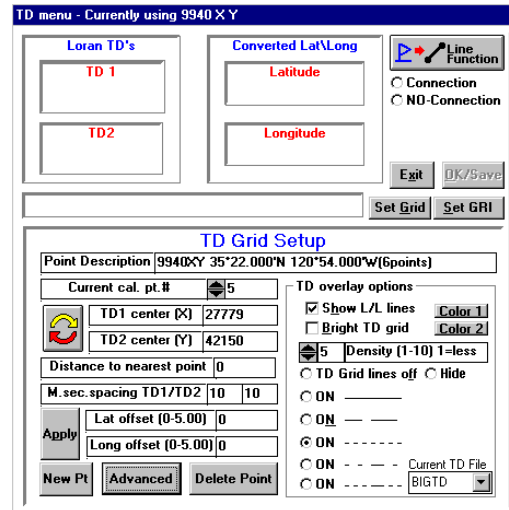
You have some control of how your grid lines are displayed. How it is going to be setup will depend on what type of charts you want to display and your own personal preferences.

The setup window

TD line setup is all controlled from the *TD Grid Setup* window as seen below.

You get to this window from the *Convert TD to LL* item in the *Options* menu (or by pressing **Ctrl-A**).

Then click the *Set Grid* button located in the lower right and window will expand downward to display the *TD Grid Setup* window.



Adjusting type of grid lines

To change the type of grid line, call the *TD Grid Setup window* (press **Ctrl-A** then click the *Set Grid* button). You can adjust the type of line (dashed, solid, dotted...) you want simply by clicking on the appropriate option button located in front of the example in the *TD Grid Setup* window. Then click the *Apply* button located in the left section of the window and then click the “*Exit*” button.

- ON _____
- ON - - - -
- ON - - - - -
- ON - - - -
- ON - - - - -

Adjusting TD line brightens

The program is set using the standard TD line colors. You can only make them either bright or normal. When using BSB/MapTech charts, you will most likely want them bright. When using Vector charts you may want them at normal brightens.

To change brightness, call the *TD Grid Setup window* (press **Ctrl-A** then click the *Set Grid* button). Click the second option on the right labeled **Bright TD grid lines** to change brightness or the lines. The lines will be brighter than normal when this option is checked.

- Show L/L lines Color 1
- Bright TD grid Color 2

To change color click on either color 1 or color 2 and select desired line color from the pallet that appears.

Adjusting the TD grid line spacing

The spacing between the lines can be changed and it is based in

M.sec.spacing TD1/TD2	10	10
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 microseconds. To change the spacing, call the *TD Grid Setup window* (press **Ctrl-A** then click the *Set Grid* button). Locate the box labeled *M. sec. Spacing TD1/TD2* and click on the white box to the right of it. Use the keyboard to enter in a number in whole microseconds then click the *Apply* button located just below it. You will see the plotter screen redraw in the background each time you click the *Apply* button. Readjust line spacing as necessary and then click the *Exit* button.

Adjusting TD grid line density

Grid line spacing is set at 10 microseconds from the factory when zoomed to lower levels (you can change this). As you zoom out you will get more and more lines and it will take longer to draw them. A control is provided that will automatically change the grid line spacing as you zoom out in range. It is called the density control and it has a value you can set from 1-10 (10 being the most dense and 1 the least).

To adjust the density, call the *TD Grid Setup window* (press **Ctrl-A** then click the *Set Grid* button). Click the up or down arrows located near the middle that is labeled **Density (1-10)** to change the setting. Click the *Apply* button and then click the *Exit* button. We suggest you start with 3 and see how you like it when you change ranges in and out. When set properly, the physical distance will stay the same no matter what range WindPlot is set to.

5 Setting present position readout to Loran-C

Click on the WindPlot's Latitude readout or press **Shift-F4**. Select *No* when it asks if you want to set *Dead Reckoning*. In order for you to accurately calibrate your plotter for the proper TD positions, you must have the plotter setup to display what it thinks the TD position is.

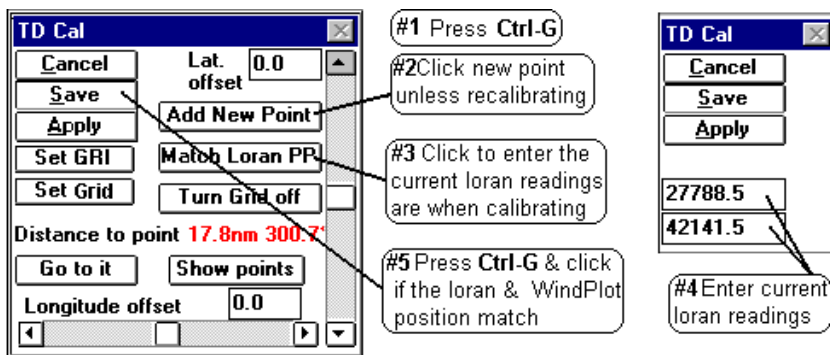
TD Calibration

There are two procedures used to for calibration points, either doing a NEW or RECALIBRATION point.

Loran calibration procedure (NEW point)

- 1 Get your vessel to the position where you need the calibration done. You can have as many calibration spots (32000 max).

We suggest calibrating where the vessel's is tied up for the first point. Make sure your computer is running and all NAV devices are locked in and press **Ctrl-G**. This will switch the present position readout to TD's if not already done and call up the window show above.



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- 2 We need to decide if we need a new point or not. Note the **Distance to point**. This is the distance to the closest calibration point. If you have a feel of how far it is needed before a new calibration is needed then you decide but otherwise, if this is more than 2 miles from you, click the *Add New Point* button to create a new calibration spot. Once you have calibrated an area, the computer automatically switches to the nearest spot so you do not have to recalibrate the same area again. You may find later that you need to shorten the distance or lengthen to keep your TD's accurate. It will depend greatly on the area you are fishing in.
- 3 If you didn't click the *Add New Point* button then click the "*Match Loran PP*" button now then enter in the TD's that you think the Loran should be presently reading. The only way to get this now is by using either another WindPlot that is calibrated or some other calibrated Loran simulator.
- 4 When both Loran numbers are set in, press the **Enter** key.
- 5 If present position readout of the plotter matches your Loran, press **Ctrl-G** and click the *Save* button.


Hint: Try slowing down the boat if the numbers are changing too fast. Do not worry about creating a new calibration point unless you have traveled quite a ways.

Changing an existing calibration point using the menu

Any changes to the calibrations points' description, line spacing, density, color, type of line, GRI and SLAVES are automatically put to the current grid file when in the auto-grid mode as soon as you click on the *Apply* button in the convert TD to Lat/Log box. You cannot however, change the reference point of any of the auto grid files. The only way to do that would be to delete the current file and start a new one *without exiting the grid setup*.

- 1 First, position the vessel or the cursor in the area where the calibration point is.
- 2 Press **Ctrl-A** or click on *Options ' Conv. TD to LL* to call the TD conv box.
- 3 If you need to set the GRI or Slaves, do so now by clicking the *Set GRI* button. Change the GRI and Slaves accordingly then make sure the Est. Lat/Long is correct.
- 4 Click on *Set Grid*
- 5 Click on the *Current File* up/down arrows to select another file calibration point if the one you want is not showing. Note that this calibration point will NOT take on the new present position for its reference point. There is a distance to cal. point box that shows the NM to the current file point.
- 7 Click on *Apply* button for the changes you made to offsets, GRI or slaves to take effect.
- 8 Click on the *Exit* button and the calibration has been reset.

Turning the Grid on or off

- 1 Press **Ctrl-A** or click on *Options ' Conv. TD to LL* to call the TD conv box.
- 2 Click on *Set Grid*.
- 3 Click the *TD Grid lines off* check box.  Or click the *Hide* button to keep using TD's without the grid lines showing
- 4 Click the *Exit* button.

NOTE: Turning the TD grid **off** also turns off any calibration offsets that are applied to marks made using TD's, present and cursor position TD readouts.

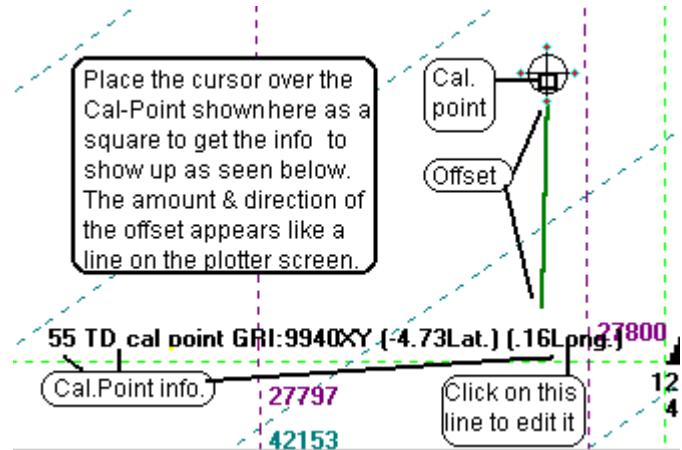
Editing calibration points using the plotter screen

By clicking on the “*Show Points*” button in the Loran Calibrator (**Ctrl-G**), you can visually see each calibration point as a box symbol, colored differently for each set of chain/slave combinations and the offsets for each depicted as a line. By placing the cursor over any one of the boxes, you can see what the chain, slaves and actual Latitude/Longitude offsets are. Click this same readout to delete or move the calibration to a different file.

Turning the calibration point screen editor On or Off

- 1 Press **Ctrl-G** to call the calibration box.
- 2 Click the *Details* and then the *Show Points* button to turn the editor on (or *Hide points* to turn off.)

The screen will redraw with boxes representing the calibration spots with white lines drawn out to zero compensation. Each box will be the same color if the GRI and Slaves are the same. Changing ranges will change box colors as more calibration points appear. It is best to do this with a black background so you can see them better.



Reading individual calibration point data

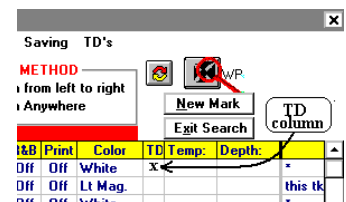
Turn on the cursor and place it over any calibration point. The calibration number, GRI, slave and offsets will display in the lower, middle of the screen.

Moving or Deleting a calibration point

Place the cursor on the calibration point to delete and click on its data display that appears in the mid-lower portion of the screen and click. Click on *Yes* to delete it, click on *No* to move it to another BIGTD file. If you decide to move it, you will be asked what file name to move it to. The file names allowed are BIGTD.DAT, BIGTD1.DAT, BIGTD2.DAT...BIGTD9.DAT.

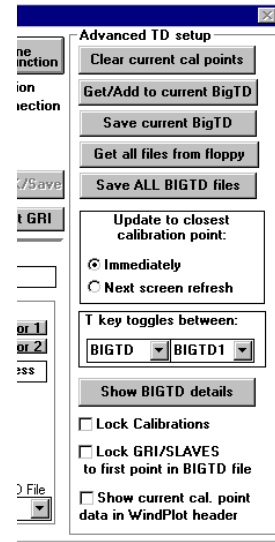
Classifying a mark/hang as a TD

When you enter a hang using TD's, the program converts it to Latitude and Longitude and that is what the computer uses to display the hang. Then, when you calibrate the area, a certain amount of Lat/Long is applied to offset any errors made in the conversion. Saving the present position as a hang/mark while using a GPS to drive the plotter must not have this offset applied to them or they will be in error. To accomplish the distinction between them we must identify which hangs were entered in TD's. This classification is actually done automatically when you do the conversion. Look at the mark search and edit list and you will note a column with “TD” as a header. Any mark with an “X” in this column is considered a TD by the program and offsets will be applied to these marks/hangs only. The computer tags this column when you enter a hang in TD's. Simply click on this column if you wish to change the TD classification of any hang but be careful not to X any hang made with a GPS.



Advance Button (in Set Grid window)

Click this button and another panel opens up in the TD converter window. The advanced panel allows you to clear or save your calibration files to and from another drive for backup. It lets you change between whether a WindPlot checks if a new calibration point is close when the screen redraws and every minute. In some cases checking every minute may cause the screen to redraw every time it checks. It allows you to see all calibration points for any BIGTD file in a list all at once. It also allows you to change which BIGTD files are toggled when pressing the *T* key on the computer key board. You can also lock all calibration points to keep from accidentally changing a good calibration point. Locking it will still allow you to calibrate a new point though. It can also lock all GRI and SLAVE settings for all BIGTD files. This is handy if you are setting each BIGTD file with it's own unique GRI/SLAVE pair. When GRI's are locked, WindPlot looks only at the first calibration point for the GRI and Slaves it is to use. Lastly, it allows you to monitor the calibration file WindPlot is using in the WindPlot title bar.



Clear all Cal. Points Button

This is the first button on the top of the advanced panel. Use this button with care. It will remove all but the first point of the calibration points from the currently loaded BIGTD file.

Get/Add to current BigTD file Button

This is the second button down on the advanced panel. This button is used to get TD calibration points from another drive.

Just place a drive (like a memory stick) with a BIGTD file from a previous save and click this button. A list of all BIGTD files will appear a number in front of each. Pick the number of file you want to add/get to the current BIGTD file. Just click on “OK” if you are saving to the same BIGTD# file or pick another number. Then you will be asked if you want to add it to the current points. Just click on “Yes” to have them added or click “No” to replace the current points altogether.

Note: When using an external drive like a memory stick it must be plugged in before you start WindPlot.

This will only replace the BIGTD file listed in the Current TD file drop down box. You will need to change the Current TD file if you want to save to a different BIGTD file.

Save Current BigTD

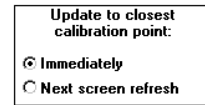
Saves current BIGTD file to another drive overwriting the file, if any that is on it. This file is listed on the TD Grid Setup Window

Save ALL BIGTD files to

This will copy all BIGTD files to the selected drive that have any calibrations at all and erase any that are already there.

Calibration Update Option

Usually you should leave this option on one of the two available options, UPDATE IMMEDIATELY. The only time you would check the other option is that you are so close to the change over from one calibration to the next that the screen keeps redrawing.



“T” Key Toggles Between

This box changes which BigTD files are used in conjunction with the computer keyboards “T” key when toggling between different files.



Show BIGTD Details Button

Clicking this button to open a new window that list the details of all calibration points in the current BIGTD file. This window will cover over the TD GRID SETUP and CONVERSION window. It provides a drop-down box that lists all BIGTD files that have calibration points in them. Just click the down arrow and select a new BIGTD file to view. If any of the files just do not fit or look right, click on any them in this window to delete it.

Calibration Lock Check Box

When this is checked (°), WindPlot will not allow you to change any of the current calibration points but you can still add and calibrate new ones. Lock Calibrations

GRI/SLAVE Lock Check Box

If you are going to keep each BigTD file with all the same GRI and Slave pairs through out the entire file then check this box. When checked (°), the program will not allow you to change the GRI or Slaves of a BIGTD file. Lock GRI/SLAVES to first point in BIGTD file

Show current calibration data in WindPlot title bar

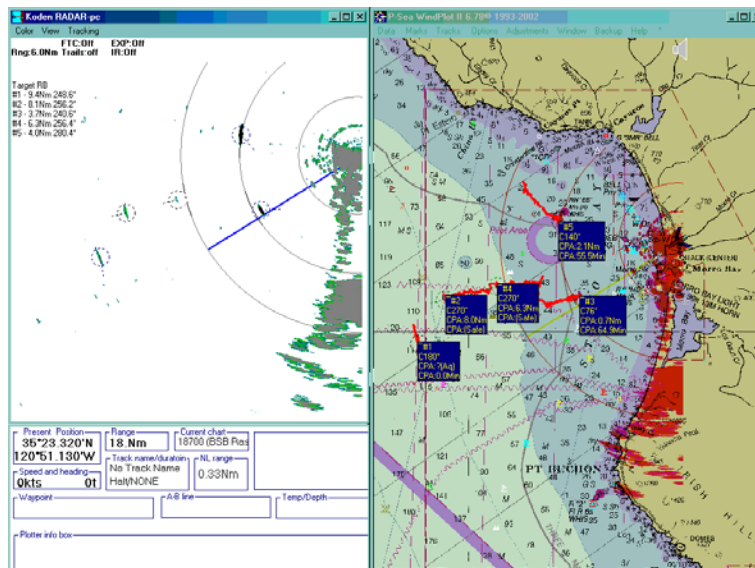
When this option is checked (°), the program will provide up to date information about the current calibration point and grid setup in the WindPlot title bar. It also will provide information about the next closest calibration point. This option will reset it self when the program is restarted. Show current cal. point data in WindPlot header

Chapter 5 P-Sea Radar



In this section you will learn:

- First time operation
- Requirements
- Main Radar Operation
- Adjustments
- ARPA operation
- Vessel Tracking
- Chart overlays



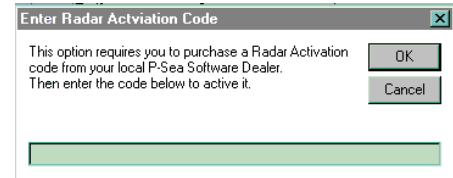
Chapter 5, P-Sea Radar Option

The option adds a whole new revolutionary aspect to marine computing. You get more than just a radar. Not only do you get a radar that has the functions of some of the most expensive dedicated radars, you are able to track AND STORE another vessel's track. It also overlays the targets onto your charts, further proving the reliability and confidence of your onboard equipment.

First Time Activating the Radar Option

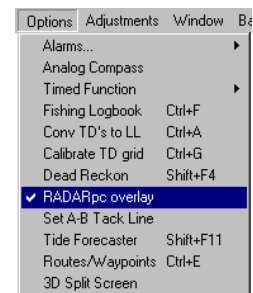
The RADAR_{pc} option requires the purchase of a code number. This code number can be purchased from your local P-Sea Software or Koden Electronics dealer.

- 1) When you have the proper code number, start WindPlot and select RADAR_{pc} from then P-Sea WindPlot *Options* menu.
- 2) Enter in the code number in the box that appears then click on *OK*.
- 3) If the number isn't accepted, retry entering in the number. If it still will not accept the code #, contact your dealer and verify that the number you were given is correct.
- 4) If you have the radar connected and turned on, go ahead follow the procedures below for starting the radar depending on if you have a 422 or Ethernet connection, otherwise click on "Cancel".



RS422 or Ethernet

No special program is needed to run the Ethernet radar as opposed to the one with the USB/RS422 SeaLevel radar system. Same program can run ether system. Just follow the procedure below when running for the first time on a PC. You can choose what system to look for at that time. Then use the "Factory Reset" to reset to factory defaults when you need to switch from one system to another.

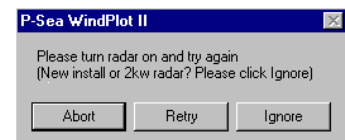


Starting the Ethernet radar the first time

For PC to RADAR_{pc} direct connection (no router)

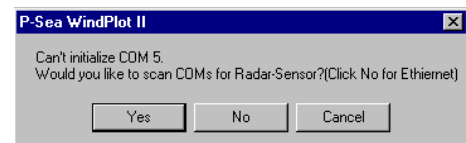
1) Setup a local LAN connection on the computer using an IP address of **192.168.0.100** and restart the computer even if it does not require you to do so (see appendix A).

2) Plug the RADAR_{pc} box LAN connections in and apply power to the radar box and start WindPlot without the radar option selected. (It needs to be on for at least 1 minute **BEFORE** the radar program and not more than 1 ½ minutes.) You should get a green light next to the cable connection on the radar box when the Ethernet connection is right. You may need to use a **CROSS OVER** cable (a regular patch cable may not work for a direct connection.) If your not sure what kind of cable you have, take a hold the ends side by side together facing the same direction. Looking through at the wires, a patch cable will look the same and a cross over will not be in the same order. Click on "**Options**" then select "**RADAR_{pc} Overlay**" to start the radar program.



3) First time users will get a message box asking if the radar is on, click on "**Ignore**".

4) Now the box show to the right here will appear as it is searching for a COM port. Click on "**No**" so it knows it is a Ethernet connection to look for.



Chapter 4, Loran Setup Guide

5) If all is set correctly in your LAN settings, you should now get a message that it is “*Initializing Radar*” within a few seconds. From here on the you will not have to wait the 1 minute but it will not show “*Initializing Radar*” until the RADARpc has been on for one minute. Then after the 1 minute you should get a DHCP error message (this is ok also) and the “*Initializing Radar*” should appear followed by a count down for the warm-up of the radar.

6) If it doesn't pick up the Ethernet and start initializing when you start WindPlot again and open up the radar window then select “*Adjust*” on the radar window and choose either “*Comports*” or “*Radar Status*” to open up the Ethernet connection window. Make sure the remote IP says **192.168.0.1** (default IP for

RADARpc box). Change it if it isn't and click the SET button. If the local LAN does not say **192.168.0.100** then go back into the local LAN settings and check it again.

DHCP SERVER CONNECTION (using a Router and Hub)

1) Setup a local LAN connection on the computer using “*Obtain an IP address automatically*” and restart the computer.

Connect the RADARpc box to the server or hub. Make sure to use a patch cable (a cross over cable will not work for a DHCP connection.)

2) The first time the radar program is started, you must turn on the RADARpc box at the same time you start the WindPlot Radar option by clicking on WindPlot “*Options menu*” and select “*RADARpc Overlay*”, so turn both on now at the same time.

3) Follow steps 3-5 on the previous page.

To get the REAL RADAR MODE (Ethernet models only), click on “*Adjust*” in the radar menu bar and select “*Radar Status*”. Put a check in the “*Real mode*” check box to see the real mode operation. The real mode is currently under construction so it does not alarm or track vessels yet. You will need to uncheck the “*Real Mode*” to track vessels. Also, there is a slight delay the first time you open the radar before it establishes a connection and starts to initialize so wait at least a couple of minutes before doing any changes to the radar settings.

Starting the SeaLevel RS422 radar system the first time

1) Install the SeaLevel Software from the CD that came with the SeaLevel box (see install instructions on box).

2) Connect the 9 pin plug from the blue radar box to the back of the SeaLevel device.

3) Make sure the computer is on and plug the USB cable into it. A “*New Hardware*” message should appear. Place the SeaLevel installation CD in the computer and instruct the wizard to look on the CD for drivers.

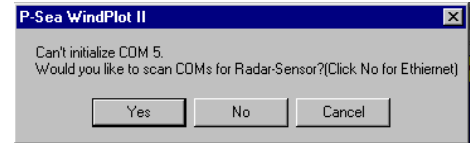
Chapter 5, P-Sea Radar Option

4) Start P-Sea WindPlot, click on “Options” then select “RADARpc Overlay” to start the radar program and then power up the radar.

5) Now the box should appear as shown to the right here, click on “Ignore”.



6) The default COM port for the radar is 5, if it is other than 5 then you will get another message box shown here on the right. Click “Yes” to begin scanning for the COM port that has the radar on it.



You will get a message box stating that it found the radar on COMx, you can now start using the radar after clicking on “Ok”. In the event it can’t find the radar it will give a complete detail list of the ports it did find and their status. Check you connections and make sure the radar has power and the power switch is turned on.

Turning RADARpc ON

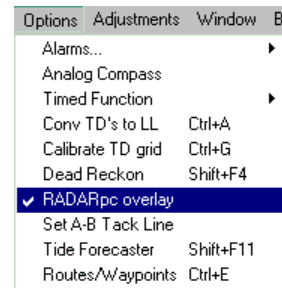
- 1) Flip the radar power switch on if not already on.
- 2) Select *RADARpc* from then *Options* menu.

or

Click one of the two buttons that appear on the left side of the plotter screen as seen to the right here. The top button will display the overlay and hide the radar screen.



Click to turn the radar on



Activates the radar window

3) When hour glass disappears or the ready light comes on, click the TX button either on the bottom of the radar tool bar or radar control panel.

Turning RADARpc OFF

- 1) Click the TX button if radar is TX is on and flip the radar switch off.
- 2) Select “RADARpc” from then “OPTIONS” menu or click the “X” in the upper-right of the radar window.



Click to deactivate

Fast enough computer? First switch to the 480x480 large radar screen. When the radar is transmitting, there are eight lights lined evenly around the radar screen (make sure your in FULL display mode and *Scan Lights on* is checked in the *View* menu of the radar window. These lights will come on in a clockwise as the radar makes each sweep. This helps give the illusion of the old-style radar sweep. This is simulated by dividing up the time it takes to download and display the radar picture by the number of lights. Sometimes you may not get the eighth light, this is normal. However, if the lights will not always all come on, then the computer is slow and cannot complete the display of the radar picture before the download of the new picture begins. This is not necessarily unusable but you may find times when you have to turn the TX off in order to make any adjustments like gain, STC and so on.

Chapter 4, Loran Setup Guide

If you get horizontal lines or the radar picture gets scrambled then the computer IS TOO SLOW or you may have too many other programs running.

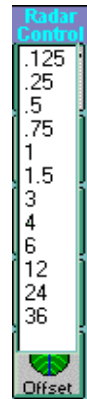
If this test works, check the radar in REAL mode if you have the Ethernet version. This is the most speed demanding of all.

The radar requires at least a Pentium 4 or equivalent computer .If have this and it is still too slow, try adding RAM to get 3GB or better and then turn virtual RAM off. Be sure to also defrag your hard drive.

Changing Ranges

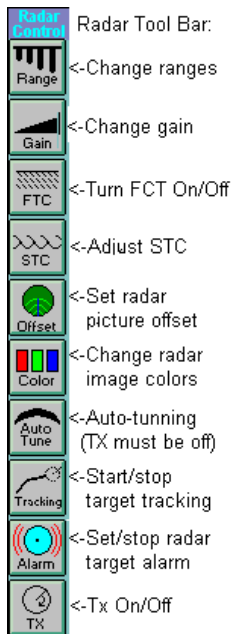
While in the *overlay mode* both radar and plotter ranges are TIED together. That is, if you change either plotter or radar range the other will automatically adjust accordingly. The radar must be taken out of the overlay mode if you wish to be independent. Changing overlay mode is described later in using the VIEW menu.

There are three ways to change radar ranges. If you click on the current radar range in the upper-left of the radar screen, a list will appear with all the current available ranges as shown to the right here. If you touch the mouse to the left side of the screen, the radar toolbar will appear. Click the top button of the toolbar labeled *Range* and the same list of ranges will appear. Just click on the range you desire and the radar will change to that range. The third way is to click on the range readout in the Radar Control Panel (if it is showing) and enter in a range. It will automatically select the next available highest range to the one you entered.



The Radar Toolbar

The radar tool bar show on the right here appears when the mouse touches the left side of the plotter screen or left side of radar screen when in TX mode.



Adjusting Gain

- 1) Set the radar to a range of 8 to 12 miles with TX on.
- 2) Click the second button on the toolbar and move the slide bar as shown to the left here or click the arrow buttons on the left and right of *GAIN(Man)* button on the *Radar Control Panel* to adjust the gain shown below. The amount of gain is indicated on just above the *Radar Control Panel* by a progressive gauge and an numerical value to the right of the gauge. You can also click the gain gauge to adjust the gain. You usually want just a few speckles of snow so adjust the gain accordingly.



Auto Gain

The radar sensor has the capability to adjust the gain automatically.

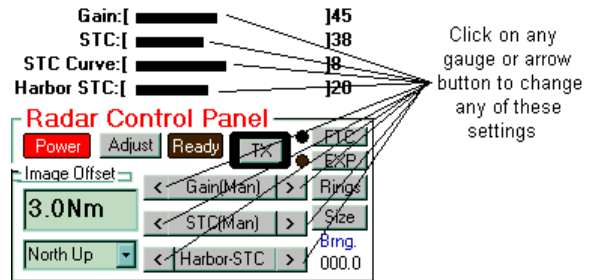
- 1) Click the *Gain(Man)* button in the *Radar Control Panel* or select *Auto-Gain* in the *Adjust* menu in the Radar menu bar and the auto-gain is turned on.
- 2) Click the Gain progressive gauge at the bottom of the radar picture to adjust the auto-gain preset.

Adjusting STC

- 1) Set the radar between .5 and 3 miles with TX on.
- 2) Click the fourth button labeled *STC* on the radar toolbar or click the buttons on either side of *STC(MAN)* button on the *Radar Control Panel* to change the STC level. The amount of STC is displayed on the gauge below the gain level gauge. The numerical value for the STC is located on the right of the STC gauge.

You want the STC level high enough to get rid of the clutter caused by waves and low enough to still see the boats and other targets on lower ranges only.

STC Curve Numbered 1-8 were 4 is default. Set the STC curve between long short ranges. Lower number if get speckles on long range and poor targets on short range.



Auto STC

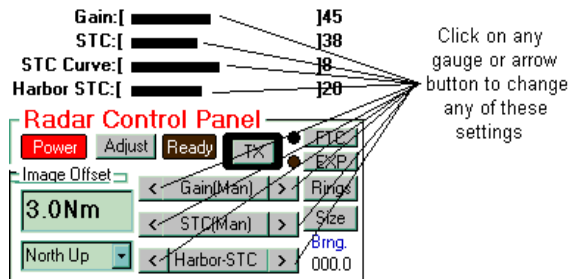
The radar sensor has the capability to adjust the STC automatically.

- 1) Click the *STC(Man)* button and it will change to *STC(Auto)* and the *Harbor STC* button will appear. The auto-STC is then turned on or select *Auto STC* in the Radar Adjust menu.
- 2) Adjust the STC preset until the desired STC level is reached.

Adjusting Harbor STC

(radars with ranges > 16 miles only and only when AUTO STC is on)

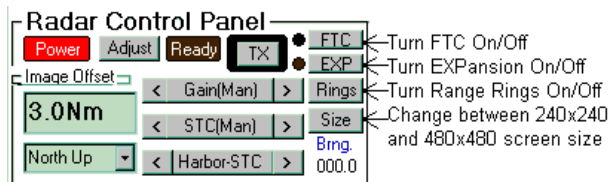
Click the arrow buttons on either side of the *Harbor-STC* button on *Radar Control Panel* to adjust the Harbor STC. The amount of Harbor STC is displayed in the gauge at the bottom of the radar screen and the numerical value is to the right of the gauge. You can click on this gauge to change the STC also. (See figure above)



FTC (Rain/Fog)



Click the FTC button on the *Radar Control Panel* or the radar tool bar to toggle the FTC on and off. FTC is on when the yellow light next to the button is on or the label located on the top of the radar display says ON (you can click this display to change the FTC status also).



Note: Ethernet systems will have a choice of level of STC

EXP



The target **Expansion** control is located just below the FTC button. It makes targets appear larger. Click the EXP button on the *Radar Control Panel* or the radar tool bar to toggle the target expansion on and off. Expansion is on when the yellow light next to the button is on or the label located on the top of the radar display says ON (you can click this display to change the expansion status also).

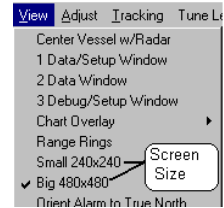
Koden RADARpc Instructions

Rings

Range rings can be turned on or off by clicking the *Rings* button just under the *Exp* button described above.

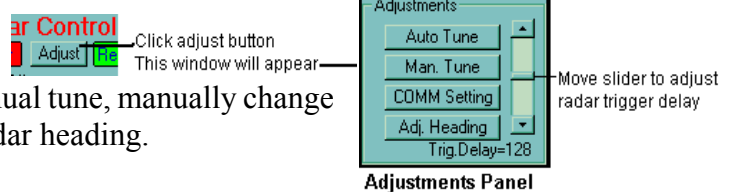
Size (or *Big* on 16 mile radars and not available in REAL mode)

On radars models with ranges greater than 16 miles you can run the radar in either 240x240 or 480x480 pixel sizes. The *Size* button on the Radar Control panel will switch between the two pixel settings. The 16 mile models have only 240x240 but there is a *Big* button to expand the radar screen to look like 480x480. The size of the screen can also be changed from the *View* menu by selecting either 240 or 480 mode.



Adjust

The Radar Control Panel contains a button for adjustments. You can adjust the radar trigger delay, start the auto-tune, set the manual tune, manually change COM (or Ethernet) settings or adjust the radar heading.



Adjust - Setting **Trigger Delay** (Scroll bar on right of the figure)

- 1) With the radar running on a low range of .25 Nm (Tx is on), click the *Adjust* button located on the *Radar Control Panel* between the *Power* and *Ready* lights to call the *Adjustments* panel.
- 2) Locate the slide-bar on the right side of the panel (on figure shown above) and use the mouse to move the slider up or down. Start at a value of about 150 and if there is a Hole in the center of the radar screen you want to move it up otherwise move it down until you get a Pin hole in the center. Move it in small increments, waiting for at least two sweeps of the radar before moving it again.
- 3) At this point your close to correct, when you get close to a bank you will want to repeat the trigger adjustment if the land pulls in or away from the ship until the land appears straight.

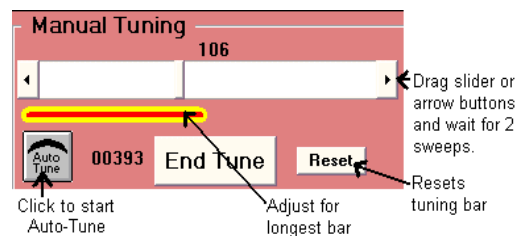
Adjust - **Auto Tune** (You must perform the manual tune at least once before using this)

- 1) Set the radar to the 6 or 8 mile range.
- 2) Turn the radar TX **ON** if not already on.
- 3) Click the *Adjust* button located on the *Radar Control Panel* between the *Power* and *Ready* lights to call the *Adjustments* panel.
- 4) Click the top button *Auto Tune* and wait a few seconds or minutes even after the words *Auto-Tune* disappear before making any other adjustments or changes to the radar or plotter.

Please note there is a *TUNE* button on the radar Tool bar. It also will have a *Auto-Tune* button on it as well.

Adjust - **Manual Tune**

- 1) Set the radar to the 6 or 8 mile range.
- 2) Turn the radar TX on if not already on.
- 3) Click the *Adjust* button located on the *Radar Control Panel* between the *Power* and *Ready* lights to call the *Adjustments* panel.
- 4) Click the second button down, *Man. Tune*.



Chapter 5, P-Sea Radar Option

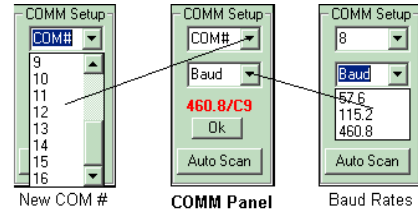
5) Adjust the tuning for largest targets by dragging the scroll bar or click the end buttons(see figure here).

Please note there is a *TUNE* button on the radar Tool Bar that will do the same thing.

Adjust - **COM Settings** (For RS422 RADARpc's only)

The radar controls most COM settings pretty good by it self but you can adjust the baud rate and/or COM number.

Just click the COM# drop box to select any of the 16 COM ports and/or click the baud drop box to select 57.6, 115.2 and 460.8kkbs if you like.

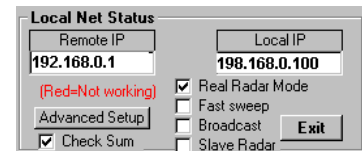


Then click on *OK* to complete your settings. You will get an error message if the COM number you selected is not available or the radar is not detected.

The *Auto Scan* button will search for the radar sensor on all ports and select it automatically. Just be sure to reset the radar so it is on the default baud rate and be sure it is properly connected and that it is turned on.

Adjust **Radar Status** or **COMM Settings** (for Ethernet RADARpc's)

Selecting the "*COMM Settings*" button on the Adjust window will display the window show to the right here. This allows you to change certain aspects that are related just to the Ethernet RADARpc.



Changing Remote IP

You can enter a new IP for the radar if you want to change the default. Make sure to follow the IP number structure. A "*Set*" button will appear as soon as you start entering a number in this box and click the SET to change it. (Note: this function was not working at time of this printing so it may not work for you.)

Local IP

This is just a readout, you can not change it. If there is a LAN that is operational, it's number will appear here. If it is blank, then there is something wrong with our LAN setup.

Real Radar Mode (Ethernet models only)

The real radar mode provides for a LIVE radar scan. Turn up the gain and you will see the radar scan line unlike the radar picture dump of the standard mode. The display in the overlay mode is brighter in this mode but it will not work "*Course Up*" mode. It also takes a much faster computer to run. If you get broken scan lines then you need a faster computer. Try not to do both radar and overlay, just do one or the other.

Fast Sweep (Ethernet models only)

The antenna sweeps twice as fast in this mode. Good for tracking fast moving targets.

Koden RADARpc Instructions

Broadcast (Ethernet models only)

Check this ONLY when you are using more than one computer on a RADARpc antenna. It allows the radar commands to be seen by several computers at once. It should be done in conjunction with the Slave Radar check box. Actually, you do not need to worry about it as it is taken care of when you activate the SLAVE mode.

Slave Mode (Ethernet models only)

If your going to use more than one PC per RADARpc then you need to assign one master and the rest must be set to be slaves. The master computer is the first computer that is start up. Each computer after that is started up after that is considered a slave to the master and there “Slave Mode” check box must be checked.

Check Sum

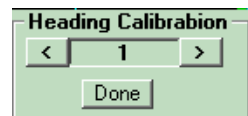
Some computers may be too slow even for the FULL display mode and never draw a radar picture even though the data lights blink like it is getting picture data. If this is the case you can uncheck the “Check Sum” check box and the program will be forced to display the radar data it is getting. Most all cases though, this should BE LEFT CHECKED AT ALL TIMES.

Advanced Setup

This is for debugging purposes only. It lists all different modes the new Ethernet can do. This is for internal use only and can cause you to loose the radar picture should you try to use it. If this happens, just close the radar and P-Sea WindPlot and restart it all over again.

Adjust - Heading

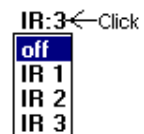
- 1) With TX on, head your vessel straight at some object like a buoy for reference.
- 2) Click the *Adjust* button located on the *Radar Control Panel* between the *Power* and *Ready* lights to call the *Adjustments* panel.
- 3) Click the 4th button down, *Adj. Heading* then click the arrow buttons until the target is dead ahead.
- 4) Click the *Done* button when satisfied that the heading is correct.



Interference Rejection (IR)

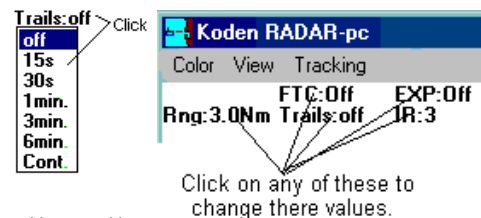
Interference rejection has 3 levels and off, #3 being the highest level of rejection.

- 1) Click the label *IR* at the top of the radar screen.
- 2) A list will appear with *OFF*, *IR1*, *IR2* and *IR3*, click on the desired IR level.



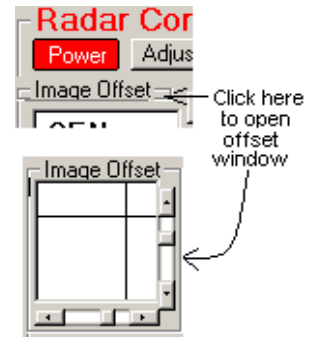
Trails (Not available in REAL radar mode)

Located to the right of the *IR:* label at the top of the radar screen is the *Trails* setting. Default is always off. Click this label and a drop-down box will appear with *off*, *15s*, *30fs*, *1min*, *6min* and *Cont.* as your choices. Time is in seconds (s) and minutes(m). When time is selected the radar will memorize the target at the interval you selected. I will memorize every sweep when continuous *Cont.* is selected. Select *off* when you do not want any trails at all. This does NOT store the vessel's track!



Picture Offset (Not available in REAL radar mode)

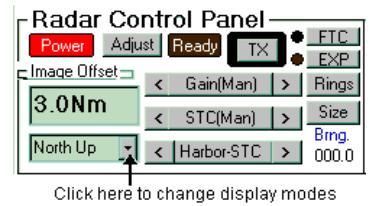
There are two places you can offset the radar picture. From the *Radar Control Panel* move the mouse over the *Image Offset* and a small facsimile of the radar screen will appear. Just click on the place where you want the center of the radar to move too. The radar toolbar also has an offset button. Clicking this button brings up another facsimile of the radar screen and offset is done the same way. The tool bar offset has a button that you can click to remove all offsets.



Radar Display Modes

There are three display modes that deal with the radar's orientation on the left/radar side of the screen; Heads Up, North Up and Course Up.

Heads Up is where the radar is displaying the head (or bow) up. This mode not available YET in REAL radar mode.



North Up is always displaying North in the top of the radar screen.

Course Up displays the waypoint course always up on the radar screen.

This mode requires a waypoint or route to be set before you can switch to it.

At this time the plotter screen is always oriented in the North Up presentation regardless of the radar's orientation. This mode not available YET in REAL radar mode.

Radar Colors (Not available in REAL radar mode.)

You can adjust the radar target color to 4 different settings, Red, Green, Yellow and Vector color. Vector color should be used if you are using vector charts. You can also select a background to be displayed on the overlay so. You can see the area covered by the radar on the overlay with this background turned on.

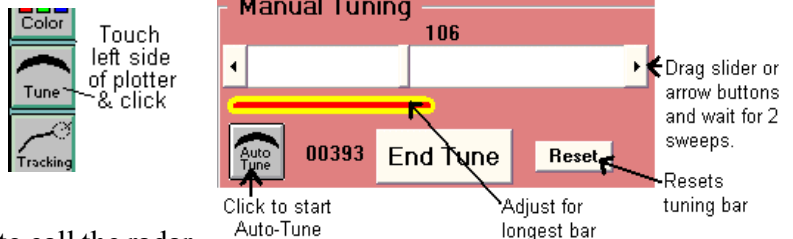


To change colors simply click on *Color* in the radar menu bar and click on the desired colors or click on the *Color* button on the Radar Toolbar and select the desired color from there.

Tune

The radar must be transmitting when the tuning is activated. Make sure you are on a long range of 8 miles or so.

- 1) Click the TX button to turn off the transmitter if it is in the TX mode.
- 2) Touch the left side of the plotter screen to call the radar toolbar and click the *Tune* button.
- 3) Drag the scroll bar or click the ends of the scroll bar to adjust the tuning. Do this until you get the largest tune bar.
- 4) Click the Auto-Tune button to have the radar make tweaks of your adjustment.
- 5) Click the *End Tune*

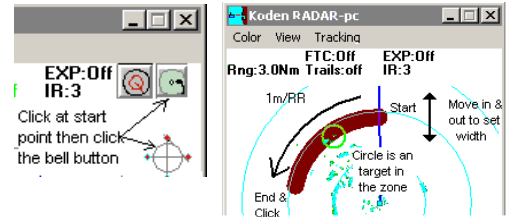


Koden RADAR_{pc} Instructions

Target Alarm From the Radar Screen

You will be moving the mouse in a counter-clockwise direction to set the alarm.

- 1) Start setting the radar alarm by clicking the mouse arrow where you want the alarm to start.
- 2) You will see a yellow cursor and two buttons appear at the top of the radar screen. Click the blue alarm bell to activate the alarm.
- 3) Now move the mouse in a counter-clockwise direction and click again.
- 4) To deactivate the alarm, click the radar screen and the bell button again.

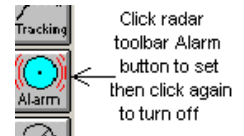


Notice that the width of the alarm can be set by moving the mouse in and out from the center of the radar targeting area.

Activating the Target Alarm from the Plotter Screen

You will be moving the mouse in a counter-clockwise direction to set the alarm.

- 1) To activate the radar alarm touch the left side of the plotter screen with the mouse pointer and select the *Alarm* button near the bottom of the radar toolbar.
- 2) Now place the mouse arrow where you want the alarm to start and click.
- 3) Now place the mouse arrow where you want the alarm to end and move the mouse in and out to set the alarm width then click again.
- 4) Click the *Alarm* button on the radar toolbar again to turn the radar alarm off.

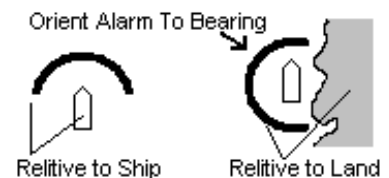


To Deactivate the Target Alarm, click on the *ALARM* button in the tool bar again or click on the alarm button that appears in the top of the radar screen on the left side.

To Set the EBL and VRR

Setting a **Electronic Bearing Line** and **Variable Range Ring**

- 1) Click once on the radar screen so the yellow cursor appears (click again and it disappears).
- 2) Two buttons appear at the top of the radar screen, click the one on the left.
- 3) A dotted line from the ship to the outside and a dotted range ring will follow the mouse, click to set.
- 4) The range and bearing appears in the Radar Control Panel, click radar screen and button again to turn off.



Views menu description

Center Vessel w/Radar - applies radar offset to plotter screen when re-centering.

1 Data/Setup Window - Changes to radar control panel and plot data window.

2 Data Window - Plotter data window only

3 Debug/Setup Window - Radar control panel w/debug window.

Chart Overlay - Radar image overlay sub menu.

Range Rings - Radar range rings are turned on when checked.



Chapter 5, P-Sea Radar Option

Small 240 x 240 - Switches to small radar window of 240 x 240 pixels.

Big 480 x 480 - Switches to Biggest radar window of 480 x 480 pixels.

Orient Alarm to True North - Switches from relative to North alarm orientation.

Negate Picture - Captures permanent objects for 3 sweeps and nulls them out.

Sectoring - Turns off Tx for a portion of the radar sweep.

Two Monitors - Selects two monitor mode if two monitors are available.

Scan Lights on - Radar scan line simulation using lights around radar screen.

(Un)Reload Alarmzone.bmp - Traceable alarm zone loading and unloading.

Auto-Start Alarm - Starts custom alarm zone automatically when checked.

Views menu ' **Center vessel with radar** (Not available in Real Radar Mode)

As mentioned earlier you can offset the radar picture using the radar picture offset. When offset has been applied, the plotter screens' offset will match the radar screen offset when this menu is checked.

Views menu ' **Data/Setup Window**

This will vary with screen resolution property settings. If resolution is high enough the Radar Control panel and the plotter data window will be displayed. This mode clears the plotter screen from all labels like present position, speed & heading.

Views menu ' **Data Window**

This will vary with screen resolution property settings. This window will only appear when running the larger size of radar window (See **Size** described earlier). It will display only the plotter data clearing the plotter screen of labels. The Radar Control panel is turned off.

Views menu ' **Debug/Setup Window**

This will vary with screen resolution property settings. This displays the Radar Control and the Debug panels. The debug panel is handy when attempting to get the radar working for the first time or when the radar is not acting right. The debug panel shows the current radar resolution, baud rate, output, input and radar serial number. Red dots indicate input and output as well as a description of the output when the "Output" button is clicked.

Views menu ' Chart Overlay ' **Radar & No Chart Overlay**

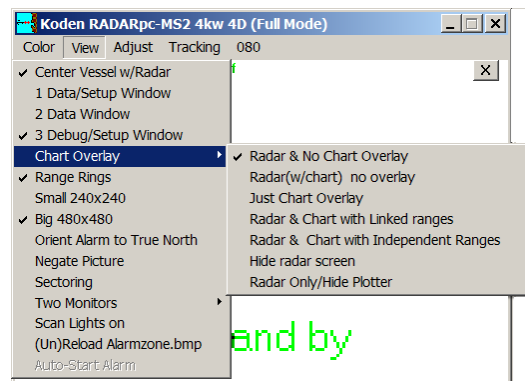
Split screen with radar on left and regular plotter on right without any radar targets on the plotter portion.

Views menu ' Chart Overlay ' **Radar & Chart**

Same as above; split screen with radar on left and regular plotter on right without any radar targets on the plotter portion but the chart shows in the radar picture.

Views menu ' Chart Overlay ' **Just Chart Overlay (w/Sidebars)**

Click this menu to "HIDE" the radar screen. The plotter screen will return to the full-screen mode but the radar overlay will continue if you have radar in TX mode. You can continue to control the radar with the radar toolbar or change to Full-Screen W/Sidebar.



Koden RADAR_{pc} Instructions

Views menu ' Chart Overlay ' **Radar & Chart with Linked ranges**

Split screen showing regular radar picture on left and radar picture over the chart plotter on the left. Changing ranges on either plotter or radar causes the other screen to change range accordingly

Views menu ' Chart Overlay ' **Radar & Chart with Independent Ranges** (Not available in Real Radar Mode) or **Linked ranges**

Split screen showing regular radar picture on left and radar picture over the chart plotter on the left. Changing ranges on either plotter or radar does not cause the other screen to change range.

Views menu ' Chart Overlay ' **Hide Radar Screen**

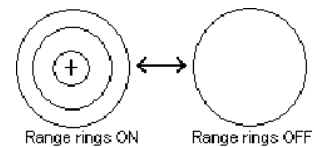
Hides the radar screen but radar keeps running in TX is on. Click radar split screen button to reactivate the radar screen.

Views menu ' Chart Overlay ' **Radar Only/Hide Plotter**

This will close (reduce to minimum) the Plotter screen and radar will continue to work as normal.

Views menu ' **Range Rings**

Click this menu item to turn the range rings on or off.



Views menu ' **240x240** (Not available in Real Radar mode)

Changes to smaller radar screen.

Views menu ' **480x480** (This mode is not available on some early 16 mile radars)

Changes to larger radar screen. It is recommended that you use this mode if you can as it gives the clearest radar picture.

Views menu ' **Orient Alarm to True North** (Not available in Real Radar mode)

This menu item will check or uncheck when clicked. When unchecked the alarm zone will orient itself with the ship like most other radars do. When checked the alarm zone will stay oriented to land. Use this when you are traveling close to land and do not want land to trigger the alarm.

Views menu ' **Negate Picture**

This function should only be used if radar is stationary and not going to move. When this is checked, any targets that appears on the first three sweeps are stored and basically those areas are turned off. So, there after so only moving targets not in these areas are displayed. Very handy when following vessels close to land or buoys.

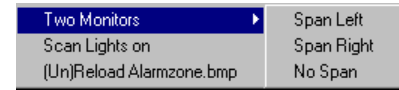
Views menu ' **Sectoring** (Not available in Real Radar mode)

When checked, a green and red line will appear on the radar screen. Tx will be on only between these lines, the green is the start and the red is the stop of Tx. Just drag the ends of the green and red lines to set up your sectoring. This is handy if you have a large metal object nearby that is causing reflections/false targets on the radar screen.

Chapter 5, P-Sea Radar Option

Views menu ' **Two Monitors** sub menu

Windows can be setup to drive two monitors. When two monitors is set up in windows, you will basically have two monitors side by side to make up one wide monitor.



Then select either “*Span-Left*” or “*Span-Right*” to have the radar in full screen mode on one screen and the plotter in the other screen. The program remembers this mode and automatically sets up the span the next time you start the radar program.

Views menu ' **Scan Lights On** (Not available in Real Radar mode)

After each sweep in the antenna, the radar downloads in one complete picture and thus no sweep line is not seen on the display like analog radars. The P-Sea Radar program attempts to simulate the sweep turning on a series of 8 lights place in the corners and sides of the radar display that turn on one after another during the sweep.

Views menu ' **Un/Reload Alarmzone.bmp**

You can build your own custom alarm zone using a bitmap file to build the zone. Radar will add this BMP file to the background of the radar display. Use a sheet of plastic and outline the guard zone you want with a felt pen. Set up paint brush attributes to either 240x240 or 480x480 depending on what radar resolution you are using. Use Windows Paintbrush to draw in the guard zone with the reddish/brown color (third color from left on top row in the color toolbox). 'Save the bmp file as 16bit color with a file name of "AlarmZone.bmp" in the plotter main directory (usually "PC-PLOTT"). The radar will automatically pick this up when it see's it is in the main directory. Click this menu item to turn it off and on.

Views menu ' **Auto-Start Alarm**

If you use the custom guard zone, this will start the alarm automatically when the is running.

Adjust Menu

Most of these are a repeat of the Radar Control Panel described at the beginning of the radar operation. See procedures described earlier in this manual for details.

Auto Gain - Adjust gain atomically after doing a preset.

Auto STC - Adjust STC automatically after doing a preset.

Auto Tune - Tunes radar picture automatically.

Backup Radar.INI - Save and recall radar settings.

Comport - Select COM port number and Baud rate or Ethernet settings

Cursor Bearing Relative - Cursor's bearing is relative to ship when checked.

Display Mode - **Course Up** - Waypoint's course up

- **Heads Up** - Ship's course up

- **North Up** - North up-preferred mode

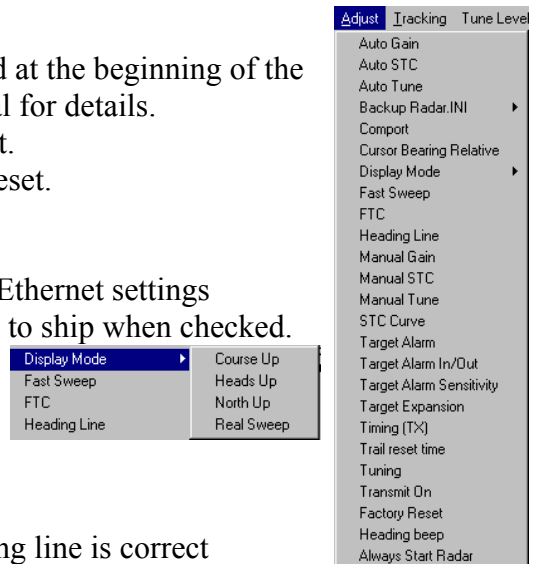
-**Real Sweep** -Selects Real Radar mode

FTC - Rain and fog anti-clutter

Heading Line - Adjust radar heading value until heading line is correct

Manual Gain - For entering a manual gain setting.

Manual STC - For entering a manual STC setting.



Koden RADAR_{pc} Instructions

Manual Tune - Adjust slider to tune for maximum targets

STC Curve - Adjust time constant curve of STC.

Target Alarm - Sets radar alarm - See TARGET ALARM FROM RADAR SCREEN.

Target Alarm In/Out - Sets alarms on vessel going in and/or out of guard zone.

Target Alarm Sensitivity - Sets number of sweeps before alarm is activated.

Target Expansion - Makes targets larger when checked.

Timing (TX) - Adjust TX timing to get rid of target distortion near center of radar.

Trail Reset time - Sets trails behind targets on RADAR screen.

Tuning - Radar tuning

Transmit On - Turns radar TX on and off.

Factory Reset - Resets all values to factory settings.

Heading Beep - Computer will beep each valid sweep when checked.

Always Start Radar - When checked, radar will launch automatically when P-Sea WindPlot is started up.

Target Tracking Menu

The radar can track as many vessels as your computer and radar can handle. You can manually start the tracking process or use the guard zones to automatically start the tracking. Each target has a number, you can leave a trail, save it as a track, get the vessels speed and heading, range, bearing, Lat./Long., CPA and set a CPA alarm. A small dotted circle will appear over every target that is tracked. The size of the circle depends on the “Sensitivity” that you have chosen for the radar targeting. A heading line (stinger) will appear for each target after a period of time from setting the target. You can set labels to appear next to each target on the plotter screen with the data on it you selected from the ARPA menu. Please note that outputting TTM sentences will slow things down further limiting the number of targets you can track.

Auto Acquire - Hands off automatic vessel tracking.

Auto Save Tracks - Save tracks when points used up or target lost.

Track Vessel - Use to manually acquire vessel tracking.

Name Tacked Vessel - Give targets a name for identifying saved tracks.

Adjustments - Sub menu for adjusting tracking settings.

Clear ALL Tracking - Clears all targets that are currently being tracked.

No Labels - Turns ARPA target labels off of Plotter screen.

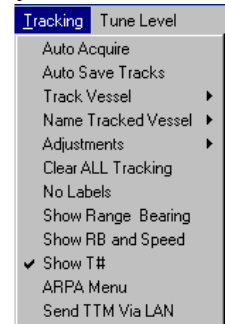
Show Range Bearing - Target Range & Bearing display in upper-left when checked.

Show RB and Speed - Target Range, Bearing and speed display when checked.

Show T# - Show Target number on radar screen

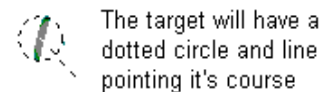
ARPA Menu - Display WindPlot ARPA menu listing all targets being tracked.

Send TTM Via LAN - Sends TTM sentences via a Local Network if one is connected.



Manually setting a target

- 1) Click on either the “*Target*” button on the Radar Toolbar or select “*Track Vessel*” from the radar windows’ “*Tracking*” menu.
- 2) Choose one of the numbers that is not checked (□) or have a “T” by it.
- 3) The yellow cursor will be on at this point on both the plotter and radar windows. Simply place the yellow cursor over a target you want tracked and click to start the tracking process.



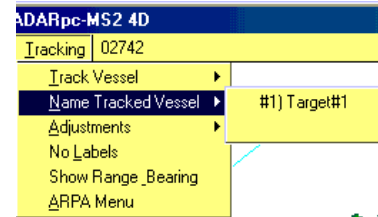
Chapter 5, P-Sea Radar Option

Be sure no other target is near by or it might move to the wrong target. A dotted line will appear around the target being tracked. It will be white if the target is strong enough and purple if not. You may see it white on every other sweep and this is ok. You can set the number of sweeps it is purple before the target is considered lost under tracking of the radar menu (“*Lost Targets*”).

Adding a Name to the target

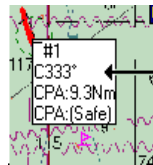
Once you have a target set you have the option of giving it a name to help identify it when the track is saved.

- 1) Click on *Tracking* in the Radar Menu bar and select *Name Tracked Vessel*
- 2) A dialog box will appear where you can enter the target name.
- 3) Just click on *OK* when done.

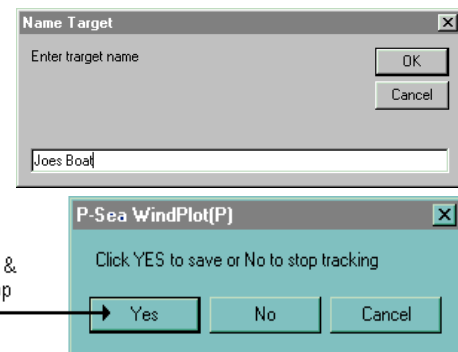


Automatic target acquire

Click on *TRACKING* then click on *AUTO ACQUIRE* if not already checked to activate automatic target acquisition. The any target passing through your guard zones will be set as a target and the computer will start tracking it.



Click on target label & save or stop tracking



Stop tracking a target using the target labels

If the data label is turned on, click on the target label and choose “*No*” to turn the tracking off. You can also repeat the way you turned it on, just click on the tracking number from the list and it will turn off.

The label and dotted ring will disappear when tracking is turned off.

Saving a Tracked Target

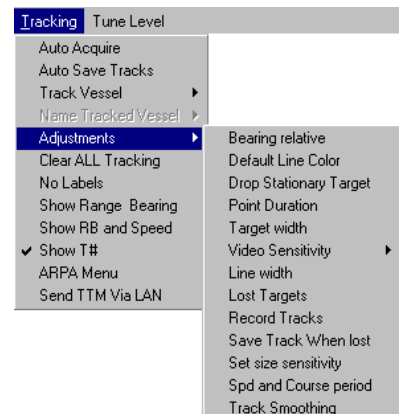
First, you have to have the track function turned on in the ARPA menu so a trail behind the tracked targets will be left. See the WindPlot manual section on “*Window*” menu in the “*Long Menus*” section for details on the ARPA menu. If you have “*Save Lost Targets*” checked the track will automatically be saved when a target is lost.

Tracking Adjustments menu

Use this menu to fine tune your target tracking. It also provides some options like saving tracks, lost tracks and so on.

Tracking ' Adjustments ' Bearing relative

Changes target heading calculation to be relative to ship.



Koden RADAR_{pc} Instructions

Tracking ' Adjustments ' **Default Line Color**

Click this to select a default track line color. This is the color of the track the target makes. You can change this color later from the ARPA menu.

Tracking ' Adjustments ' **Drop Stationary Target**

When this menu item is checked the ARPA target will drop out if it does not move for over 6 minutes. Use this to avoid locking onto buoys for example.

Tracking ' Adjustments ' **Point Duration**

Sets how often (in seconds) the Lat/Long position of targets are saved to the track file. Just click on this to set the number of seconds to save. This will depend on how accurate you want the target tracks to be. Usually 30 seconds is good enough.

Tracking ' Adjustments ' **Target Width**

Sets the width of the target ring. This ring appears when a target is first picked up and your using Auto-Acquire. A dashed circle will appear when set to 1 otherwise it will appear solid and 15 is the maximum.

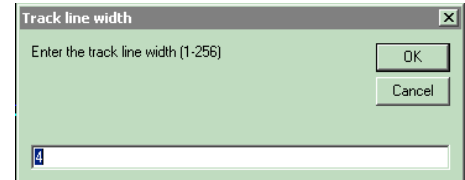
Tracking ' Adjustments ' **Video Sensitivity**

Set to your preference. There are 3 levels of video that represent return target strength High, Medium and Low. Use LOW when you have the TRAILS function turned on. HIGH sensitivity will track anything on the screen so do not use when any snow or clutter is present.



Tracking ' Adjustments ' **Line Width**

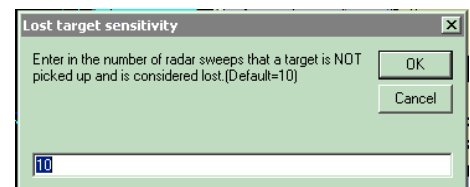
Click this to set a default tracking line width from 1 to 15 where 2 is usually most desirable.



Tracking ' Adjustments ' **Lost Target**

This sets the number of consecutive sweeps that the target is NOT detected before the target is considered lost.

The default is 10, just enter the number you want and click on "OK".



Tracking ' Adjustments ' **Record tracks**

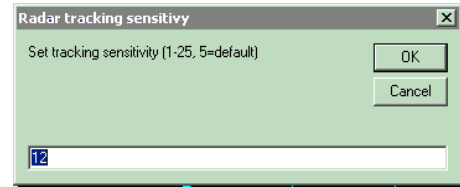
This must be checked if you want to leave a trail (track) of ARPA targets.

Tracking ' Adjustments ' **Save Track when lost**

Click this menu item to check or uncheck it. When it is checked and the target is determined lost the program will automatically save its track to a file. Also, if this menu item is checked and the maximum number of points as set up in the ARPA menu is met then the track will be save as well.

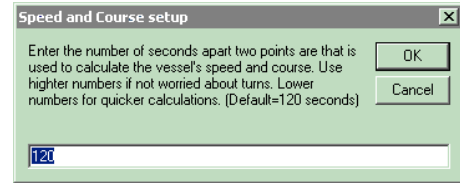
Tracking ' Adjustments ' **Set Size Sensitivity**

Tracking sensitivity is actually the number of pixels away from the center of the target that the radar looks for the target. If too large it may GRAB another target nearby. If set too low you may loose the target as the vessel swings around. Try a setting of 10 to start with.



Tracking ' Adjustments ' **Speed and Course period**

This setting is in seconds (120 is default) and is the length of time between target track points that are used to determine speed and heading. Too small a number usually leads to wild swings of speed and course. Too long and you may never get a speed and course as it has to wait for the period of time you set before it can do any calculations.



Tracking ' Adjustments ' **Track Smoothing**

Takes out some of the zig-zags in a targets track. (From 1 to 10.)

Tracking ' **Clear ALL Tracking**

Just clears out any targets currently being tracked.

Tracking ' **No Labels**

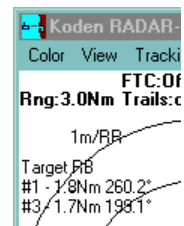
You have the choice of having labels appear next to each target displaying any data about the target you want as set up in the ARPA menu. Click this menu item to turn the labels on or off. These labels may cause the plotter screen to flicker as the boat moves. This flickering will be more apparent on slower computers.

Tracking ' **Show Range/Bearing** (Not available in Real Radar mode)

Click this item to have each tracked targets range and bearing appear in blue in the upper-left of the radar window.

Tracking ' **Show RB and Speed** (Not available in Real Radar mode)

Click this item to have each tracked targets speed, range and bearing appear in blue in the upper-left of the radar window.

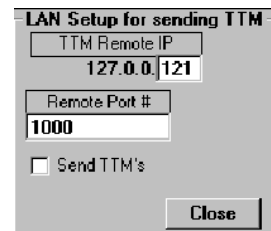


Tracking ' **ARPA menu**

Calls the ARPA menu that lists all of the targets currently being tracks and allows you to change various things regarding the tracking and display of targets. See the “*Window Menu*” part of the manuals section on “*Long Menus*” for details of the ARPA menu.

Tracking ' **Send TTM Via LAN**

TTM sentences contains the tracking info for all targets that have been acquired. Theses sentences can be sent via the serial port in the Plotter “*Adjustments/Chg.COM Ports/Time*” menu. The serial port can be too slow,



especially when a large number of targets are acquired. However, with the LAN speed is not a problem. Setting this window shown here with the correct IP and port number of the computer that is in the Local Network will send these sentences via the LAN. Be sure to turn the serial port output off if you use this to free up computer resources and make it go faster.

22 WindPlot Screen Remote Display

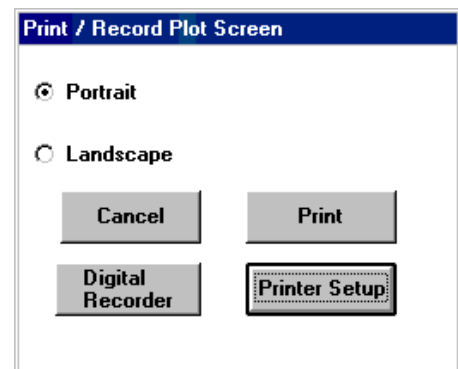
A program is included with WindPlot II that sends radar TTM sentences containing the tracking info for all targets that have been acquired on the P-Sea Radar Option. Now the same program can re-display the entire computer screen and WindPlot II program to a remote computer. This can be used to display plotter picture to another position on the boat like the lazarette without having to purchase another software license key.

First, you must install the P-Sea WindPlot II program on the second computer. You will not be using the actual WindPlot II program on the remote but the WindPlot II files are required to run the remote display to work. Next, locate the RecvLanTTM.exe file on the WindPlot II install CD using “MyComputer” or “Windows Explorer” and copy it to the PC-PLOTT folder. Now once again search and locate the RecvLanTTM.exe file but this time look in the PC-PLOTT fold. Right-click on the RecvLanTTM.exe file, select “Copy To” from the menu that pops up then select “Create Shortcut on Desktop”.

Now close all the Windows on the remote computer, locate the shortcut you just made for the RecvLanTTM.exe program and double-click to start it. Look for the computer name printed in red in the upper-left of the remote display window. This name will be needed later in the WindPlot II to get start it working in WindPlot II. You also need to check the IP address in both computers and set them up for a local LAN. It is beyond the scope of this paper to instruct you on how to check or change the IP. However, we suggest setting the IP’s of the two computers to something like 192.168.0.100 and the other computer to 192.168.120 when you get to where you can check and change them. We also suggest turning all fire walls off or set the two computer IP’s as a trusted IP in the fire walls. It is beyond the scope of this paper to instruct on how to work your fire walls.

Connect the two computers with a Ethernet cross-over cable. If you do not have a Ethernet crossover cable then get a crossover adaptor plug. When properly connected you should get a green light at the Ethernet connection on both computers. If not, then most likely the cable is not right.

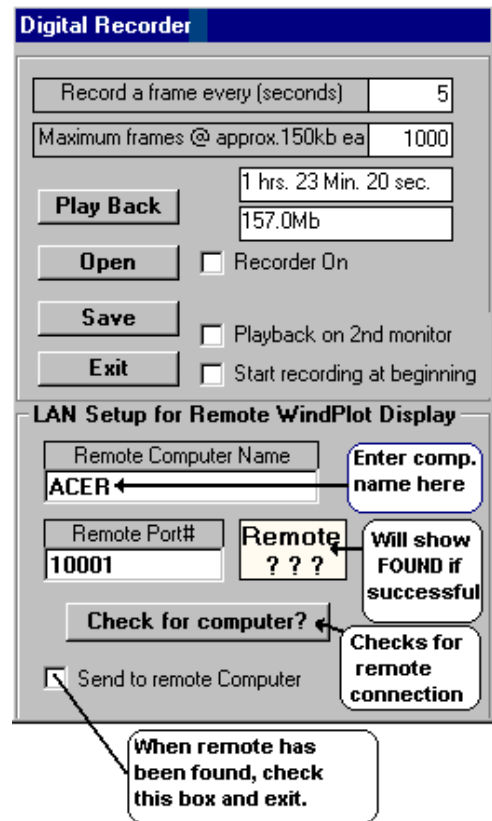
Now you need to set the name of the remote computer in WindPlot II. Open WindPlot II and click on the “Window” menu. Select “Print/Record Plot” and the window shown here will appear. Click on the “Digital Recorder” button.



Chapter 5, P-Sea Radar Option

Now you should see the “*Digital Recorder*” window show on the right here. Enter in the name of the computer you got from the remote RecvLanTTM.exe program to in the “*Computer Name*”. Click the “*Check for computer button*” The program will check to see if it can communicate with this computer. If it can’t, click on the “*My Network Places*” and make sure you can log onto the computer. You should see the name of the computer you entered in the “*Computers Near Me*”. If you do not see the destination computer listed then you need to check your LAN settings and security options. Make sure you have shared access to the remote computer.

Once the computer is found set how often you want to send a picture. We suggest at least 5 seconds or more to start with and see how your program reacts and increase the number if WindPlot appears sluggish. Now to get it started, check the “*Send to Remote Computer*” check box and click the “*Exit*” button. You should start seeing the plotter screen image appear on the remote computer in a few seconds or so.

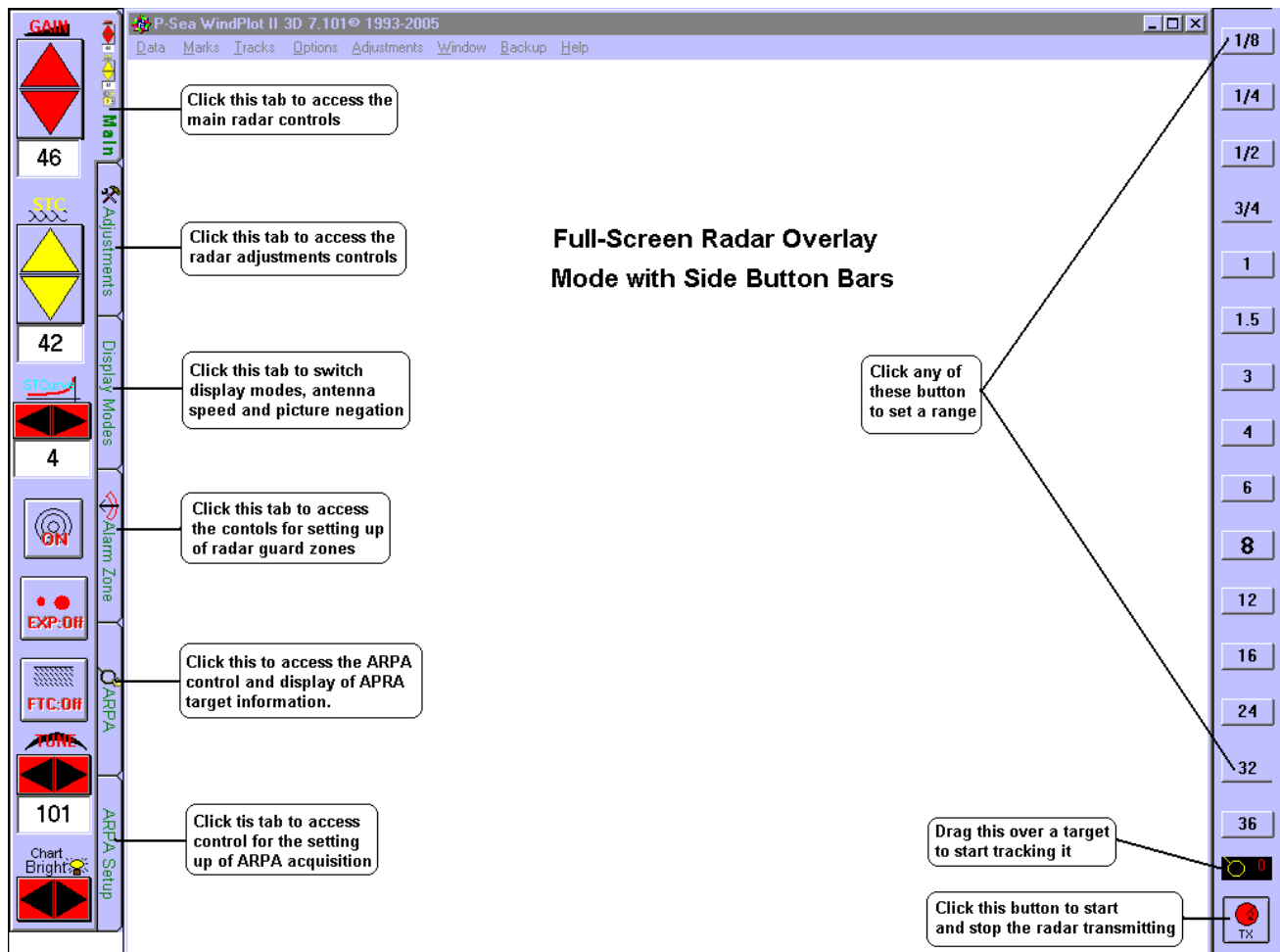


Full Screen Mode with Side Button Bars

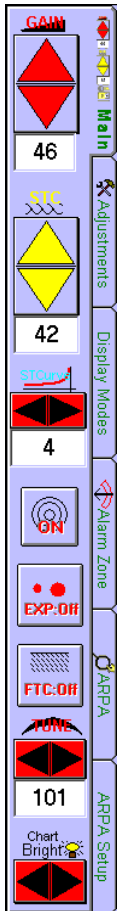
A simplified and improved Full-Screen mode is available in P-Sea WindPlot versions 7.10 and greater. The menu selection is **View ' Chart Overlay ' Hide Radar w/Sidebars** or you can click then full screen radar button on the left of the plotter screen. Click it one for side buttons and again to hide the side buttons. The buttons are purposely made large to accommodate touch screens.

Along the right side you will find the radar range and TX button. The number of range buttons will depend on the type of RADAR_{pc} scanner you have. The transmit (TX) button is located at the bottom, just click to start and stop the radar. A drag and drop ARPA button will appear above this if you have ARPA option and the radar is in the transmit mode.

The buttons on the left of the screen are the control and adjustment buttons. It has six different groups of buttons that is selected by clicking on the vertical tabs. The tab selection are: **Main** for most common used radar controls, **Adjustments** so you can adjust heading line, trigger pulse delay and radar interference rejection, **Display modes** to select display orientation, sweep speed, full or real mode, negative picture and target trails, **Alarm Zone** for setting up a guard zone, **ARPA** for monitoring ARPA targets and **ARPA Setup** for setting up ARPA acquisition.



Chapter 5, P-Sea Radar Option



GAIN: The main control button tab is shown here. Use the top button to adjust the gain. Gain should be set with the radar set to the largest range and set it so there is just a speckle of noise on the radar screen.

STC: The next control sets the level of STC. Adjust this on the lower ranges AFTER you have properly set the gain control. Set the STC down as low as you can and still not see the sea clutter. This needs to be continuously adjusted as sea conditions change.

STC Curve: The next control down sets the STC curve. This is set to 4 by default, you need to set this by experimenting with the STC on each range. The STC curve is best set when you can scale through all ranges with little or no further STC adjustment needed.

Rings: Click this button to turn the range rings on and off

EXP: Click this to turn on target expansion. Targets will appear bigger when it is on.

FTC: Sets the FTC or rain clutter. Turn this on when rain or fog causes clutter on the radar screen.

Tune: Adjust this for the largest amount of targets on the screen.

Chart Bright: Changes the brightness of the charts as compared to the radar images. This should be dimmed down on Ethernet and brightened up on serial RADARpc's.

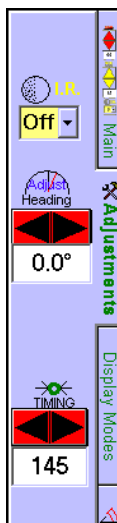
Main Adjust tab

IR: The first control in this tab is the Interference rejection control. It is used to eliminate random radar noise caused by other radars. It has OFF, 1, 2 and 3 for choices where 3 is the most rejection.

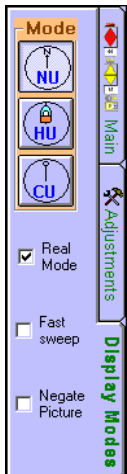
Heading: Adjust this control so that a target is exactly on the heading line when your heading for it.

Point the boat at a buoy for example. It should be on the radar heading line if this is properly set.

Timing: This adjusts the radar main bang trigger delay timing. Go to the smallest radar range while going down a narrow channel. Now adjust this control first to eliminate a "Whole" in the center of the screen. Then look at the bank of the channel and adjust the timing so that there is no distortion, it should be a straight line. Be careful not to set too high a level or you may miss seeing boats that are close to you.



Display Modes Tab



Mode: The first set of 3 buttons are related to each other and only one can be selected at a time.

Click **NU** to have the radar display in North Up mode. In this mode north is always at the top.

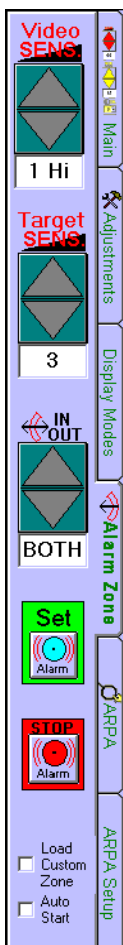
Click **HU** for Heads Up mode, This mode the radar heading line is always up. Charts will rotate.

Click **CU** for Course Up mode. In this mode a waypoint is always at the top of the screen. It also requires a waypoint to be set.

Real Mode:(Ethernet models only) Click this to switch between real and full radar display mode.

Fast Sweep: (Ethernet models only) Click to set the antenna to rotate twice as fast. Be sure your radar power supply can handle the extra current draw.

Negate Picture: (For use only when vessel is stationary) When checked, this will eliminate all targets on the first few sweeps of TX causing only moving targets to appear on screen.



Alarm Zone Tab

Video SENS: Adjust this for the level of video Hi, Med or Low. Low means only the strongest targets and Hi means the weakest.

Target SENS: This is the number of sweeps it takes before a blip is considered a target. Setting this too low will cause random noise to be considered a radar target causing false alarms to go off. Setting too high will cause an extra delay in picking up real targets that are in the alarm zone.

IN/OUT: You can set the alarm to go off only when a target is approaching you and entering the alarm zone (IN) or set it to go off when the target leaves the zone (OUT) and away from you or either (BOTH). You will need to set a value when setting in or out mode. This is a distance of change require for the target to be considered going in or out. Do not set this too high or no targets will be detected.

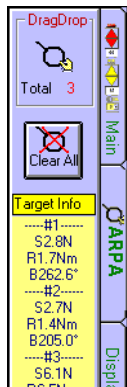
Set: Click this to set an alarm zone. You will be moving the mouse in a counter-clockwise direction to set the alarm. Place the mouse arrow where you want the alarm to start and click. Now place the mouse arrow where you want the alarm to end and click again. Notice that the width of the alarm can be set my moving the mouse in and out from the center of the radar targeting area.

STOP: Click this to cancel the alarm zone.

Load Custom Zone: You can build your own custom alarm zone using a bitmap file to build the zone. Radar will add this BMP file to the background of the radar display. Use a sheet of plastic and outline the guard zone you want with a felt pen. Set up paint brush attributes to either 240x240 or 480x480 depending on what radar resolution you are using. Use Windows Paintbrush to draw in the guard zone with the reddish/brown color (third color from left on top row in the color toolbox). 'Save he bmp file as 16bit color with a file name of "AlarmZone.bmp" in the plotter main directory (usually "PC-PLOTT"). The radar will automatically pick this up when it finds it in the main directory. Click this menu item to turn it off and on.

Range specific guard zones

One trouble with the regular AlaromZone.bmp is that is appeared the same for every range but now it can be made specific to any radar range. This is done by changing the name of the bitmap file. The name of the file use to be (and still is if you want it to appear on every range) "ALARMZONE.BMP". To make it range specific we add the range value time 100 after the ALARMZONE. For example the name of the file for the 3 mile range would be "ALARMZONE300.BMP" and for 1/2 mile it would be" ALARMZONE050.BMP". Place these files in the main P-Sea WindPlot program folder and they will appear automatically in the specific range and only that range.



ARPA Tab (tab position was move up for reference)

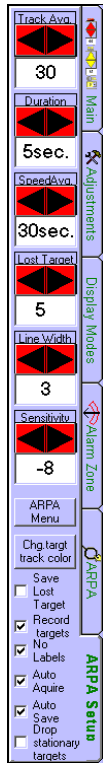
Drag/Drop: Place your mouse on this button and hold down on the left button and continue holding while moving it over a target and let go of the mouse button. This sets a target for tracking.

Clear All: Clears all targets from the tracking.

Target Info: Lists target information for all targets that are currently being tracked. Information displayed here is controlled via the ARPA menu in the plotter "Window" menu.

Koden RADAR_{pc} Instructions

ARPA Setup Tab



Tracking Average: This averages the computed Lat./Long. position of a target making a smoother recorded track line. Setting this too high will cause some position errors and setting too low will make a jagged track line.

Duration: This is how often a track point is saved. Too high and take longer to calculate speed and headings too low waste track storage memory.

Speed Avg.: Smooths out the speed and heading readouts. Too much will cause delays in target course changes.

Lost Target: The number of sweeps that a target can be off screen before the target is considered lost or no longer in range.

Line Width: Sets the width of the track line left behind when a target is being tracked

Sensitivity: Tracking sensitivity is actually the number of pixels away from the center of the target that the radar looks for the target. If too large it may GRAB another target nearby. If set too low you may loose the target as the vessel swings around. Try a setting of 10 to start with. Enter a negative number to have the sensitivity adjust with range so it maintains itself in proportion to the target.

ARPA Menu: Click this to call the ARPA menu where you can set the items to display for a target.

Change Target track color: Choose a color for the target tracks.

Save Lost: Saves tracked targets when the are considered lost automatically.

Record Targets: Records targets when checked.

No Labels: Turns off target information from plotter screen. Labels can cause the plotter screen to blink and/or hide other targets.

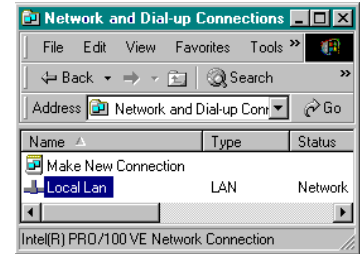
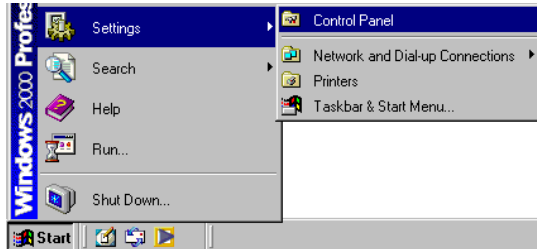
Auto Acquire: Target in a alarm zone will be automatically tracked when checked.

Drop stationary targets: Drops targets that the computer determines are not moving (like buoys).

Appendix A RADAR

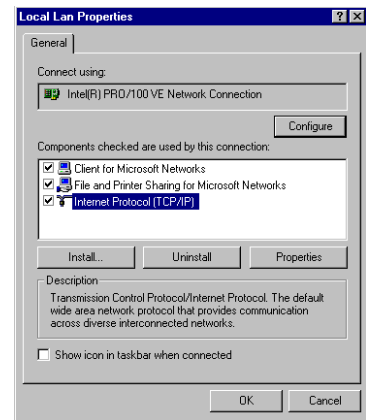
Setting up a LAN on your computer; This differs from one windows platform to another and the setup may be best left up to a specialist. What you need to do first is locate the LAN or Local Network properties.

In **Windows 2000**, you will find this in the **Start** ' **Settings** ' **Control Panel** ' **Network and Dial-up connections**. In Windows

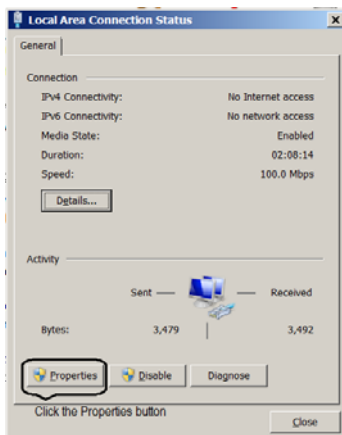
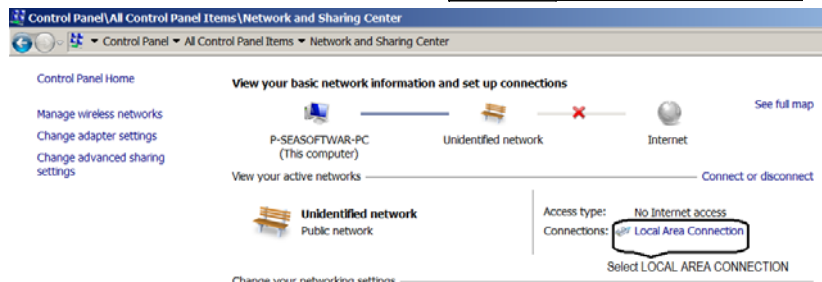


XP it may look like this or you may find the “Control Panel” right in the start menu when you click it but in any case you need to locate and open the “Control Panel” before you proceed to the next step.

Then from the Local LAN Properties box, locate the “Internet Protocol (TCP/IP)” and click on it then click the “Properties” button.



In **Windows 7** or Vista, click on Windows *Start* select the *Control Panel*, then click on *View network status and tasks*. Then select *Local Area Connection* listed under *Connections*.



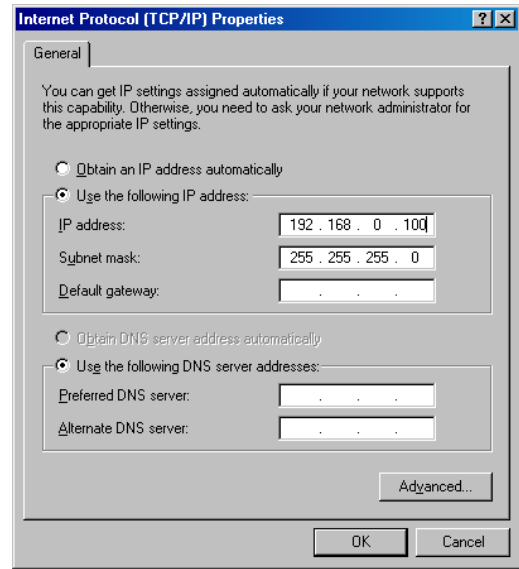
You should get the Local Area Connections Status window. Click on the “Properties” button.

Koden RADAR_{pc} Instructions

Now if your using a thing call a router then all you need to do here is select “*Obtain IP address automatically*”, click on OK and restart the computer.

If your setting up **direct PC to Radar** or HUB connection then you must select “*Use the following IP address:*” and enter in “**192.168.0.100**” in the “IP address” boxes and enter “**255.255.255.0**” in the “Subnet mask” boxes, then click on “*OK*” and restart the computer.

After all this you should be ready to connect the radar to the computer and start it up as described in the begging page of this manual.



You can test the connection to the radar by sending a ping. Just click on *START* then select *RUN*. In the *OPEN* box type in the following: **PING 162.168.0.1** and press enter. If it is working you will get a message that it was successful and a time will be given of how long it took.

Chapter 6

Quick Reference

This section of the manual will help you remember how to perform a task or tell you how to do something new once you understand the program. If you have trouble understanding this *Quick Reference*, please read Chapters 1 and 2.

There are several ways to invoke most of these features. The instructions given here are for the most obvious way, not the shortest way. If you use one of these features regularly, consider using the keyboard. The keystrokes that sometimes appear in a menu can be used to call that function. For example, pressing **F7** is equivalent to clicking on *Add Mark* in the sub-menu shown to the right. Using keystrokes often saves time over using the mouse. However, we tell you how to use the mouse in this *Quick Reference* because using the mouse is more intuitive and easier to remember. Turn off EZ buttons if they are turned on since these instructions assume they are off, next switch to *Long Menus* if you have short menus on.

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What you want:

Activate American-Pioneer Bottom Characteristics option

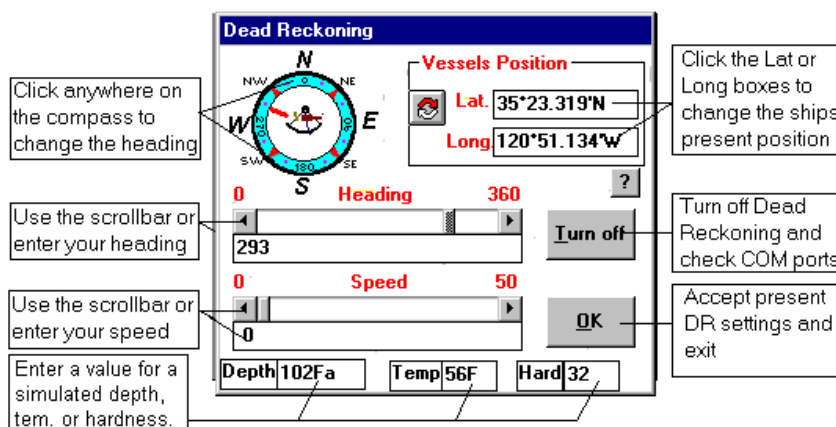
What you do:

- 1 Click on *Tracks* then *Current* then *Colors* then *Multiple*.
- 2 Click the *New Mode* button in the *Multiple Track Color* window.
- 3 Click the *Seabed Option* button.
- 4 Enter in the number you obtained from your dealer. The *Mode* window should now list 3 new options.

Note: You must have a code number in order to activate this option. You can purchase this number from you local dealer.

Activate *Dead Reckoning* for practice.

- 1 Click on **Options** in the plotter menu bar.
- 2 Click on *Dead Reckoning* to call its dialog box.



- 3 Use the scroll boxes to set speed and heading.
- 4 Click on *Lat.* (or TD1) box, use the **Del** or **Backspace** key to delete what is there, and use the keyboard to type in the desired value of Latitude (or TD).
- 5 Press **Enter**.
- 6 Click on the *Long.* (Or TD2) box, use the **Del** or **Backspace** key to delete what is there, and use the keyboard to type in the desired value of Longitude (or TD).
- 7 Press **Enter**.
- 8 Click on the *OK* button or press **Enter** to confirm settings.

Note: TD's may be used instead of Lat/Long for present position by clicking the button with the two circular arrows. This will also switch the present position readout as well.

Activate Second COM Port.

- 1 Click on *Adjustments* in the plotter menu bar to call the Adjustments menu.
- 2 Click on the third line of this menu, *Change COM Port* to call the *Adjust COM* dialog box.
- 3 If the *Deactivate* check box above the data window has a check

What you want:

What you do:

- then click it so it is not checked to enable the port.
- 4 If the COM number isn't showing then click one of the red COM# labels and select the COM# you need.
- Adding CD's to your Hard Drive
- 1 Quit WindPlot if it is running, insert the CD and restart WindPlot then skip to step 4 (C-Map charts require special instructions)
- or**
- 1 Place the CD in the drive and press **Ctrl-N** to call the *Raster Menu* (the cursor must be off).
 - 2 If it is a chart made by P-Sea Software like the Bathy. charts then click the *P-Sea Soft.* button otherwise click the *BSB/S.C.* button.
 - 3 Click drive down arrow and change to the CD drive letter and click the *Use Default Directories* and *Update* buttons a couple of times to get the charts to list.
 - 4 After they list, the *Use Default Directories* button should change to *Copy CD to Hard Drive*. Click this button, setup the drive you want to copy to and go, click on *Update* if not.
 - 5 Once they are copied, you must change to the hard drive if you want to use them by clicking the drive down arrow and select it from the list of drives.
- Add date and time to mark description.
- 1 Click on the *Mark* in the plotter menu and select *Mark Search & Edit*.
 - 2 Click on *Display Options* in this window and *Marks* sub-menu.
 - 3 Click on *Add Date & Time*.
- Add a mark at cursor position.
- 1 Make sure cursor is on. (Press **F2** or click the cursor button.)
 - 2 Drag or click the cursor to where you want to make the mark.
 - 3 If you are willing to accept the type of mark and color last used and the *Right Mouse Button* is activated, click with the right mouse button and you are done; if not, click on *Marks* in the plotter menu bar to call the Marks menu.
 - 4 Click on *Edit From Screen* to call a sub-menu (or press **F7**).
 - 5 Click on *Add Mark* to call the *Add mark at Cursor* dialog box.
 - 6 Click on the color and the symbol you want the mark to be.
 - 7 Click on *OK* in the *Add mark at Cursor* dialog box.
- Add a mark at range and bearing from ship's position.
- 1 Make sure the cursor is on. (Press **F2** or click the cursor button to turn it on.) Notice that the *Cursor Information* box will be on the screen.
 - 2 Click in the *Range* box of the *Cursor Information* box and type the range of the mark in nautical miles.
 - 3 Click in the *Brng* box of the *Cursor Information* box and type the bearing in degrees.

What you want:

What you do:

Add a mark at the ship's position.

- 4 If you are willing to accept the type of mark and color last used and the *Right Mouse Button* is activated, click with the right mouse button and you are done; if not, click on *Marks* in the plotter menu bar to call the Marks menu.
- 5 Click on *Edit From Screen* to call a sub-menu (or press **F7**).
- 6 Click on *Add Mark* to call the *Add mark at Cursor* dialog box.
- 7 Click on the color and the symbol you want the mark to be.
- 8 Click on *OK* in the *Add mark at Cursor* dialog box.

Add a mark by entering its Latitude and Longitude.

- 1 Press the **Esc** key to make sure that the cursor is off.
- 2 If you are willing to accept the type of mark and color last used and the *Right Mouse Button* is activated, click with the right mouse button and you are done; if not, click on *Marks* in the plotter menu bar to call the Marks menu.
- 3 Click on *Edit From Screen* to call a sub-menu. (Or press **F7**)
- 4 Click on *Add Mark* to call the *Add mark at Ship* dialog box.
- 5 Click on the color and the symbol you want the mark to be.
- 6 Click on *OK* in the *Add mark at Ship* dialog box.

Add a mark by entering its Latitude and Longitude.
(Cont)

- 1 Make sure the cursor is on. (To turn it on press **F2** or click the cursor button.) The *Cursor Information* box will be on the screen.
- 2 Click in the *Lat.* box of the *Cursor Information* box and type in the Latitude of the mark you want to make.
- 3 Click in the *Long.* box of the *Cursor Information* box and type the Longitude.
- 4 If you are willing to accept the type of mark and color last used, click with the right mouse button and you are done; if not, press **F7** or click on the *Mark* button in the Button bar to call the *Add mark at Cursor* dialog box.
- 5 Click on the color and the symbol you want the mark to be.
- 6 Click on *OK* in the *Add mark at Ship* dialog box.

Or

- 1 Call the *Mark Search & Edit* list by clicking on *Marks* in the plotter menu bar and then clicking on *Search and Edit*.
- 2 Click the *New Mark* button located just above the exit button in the upper right of this list. The end of the list will appear with a blank space. The program will be waiting for you to enter the Latitude of the mark. (If you would rather enter the TD's of the mark, click on the arrow over arrow or change button just above the *Exit Search* button.) Press **Enter** after putting in the first coordinate and the cursor will jump to the next column and wait for you to type in the second coordinate and press the **Enter** key again.
- 3 After entering the second coordinate, the *Select New Mark* dialog box will appear. Click on the color and symbol you want for the

What you want:

What you do:

mark in this dialog box and then click on *OK*.

- 4 Now the marks' *Description Editor* dialog box will appear. Enter a description if you like. The program will then prompt you for a new mark. Clicking on *Yes* will allow you to repeat the procedure to enter another mark.

Note: Pressing **Enter** in any of the dialog boxes mentioned above causes the program to repeat the previous entry.

Add mark using TD's

Use the procedure in the previous paragraph but before you do, click the arrow over arrow button the cursor box or *Mark Search and Edit* menu to use TD's instead of Lat/Long or...

- 1 Click on the *Options* menu.
- 2 Click on *Conv TD's to LL* to bring the *Convert TD's to Lat/Long* dialog box to the screen.

Note: If you have not set up the GRI, click on the *Setup GRI* button and select the correct Loran chain and slaves from the dialog box that appears. Be sure to click the *Apply* button after setting the GRI if you are using the Auto Grid function.

- 3 Use the top row of keys on the keyboard to enter your first TD number. This must be a 6-digit number with a decimal point before the last digit and it must be from the same station as the first number in the Loran program. Press **Enter**, then press **Tab** and enter the second TD.
- 4 Press **Enter** or click on the conversion button in the upper right of the dialog box. The corresponding Latitude and Longitude will appear in the middle boxes. The TD numbers are added to new marks descriptions as they are made.
- 5 Click the *Ok/Save* button to generate the next TD mark.

Note: You can use the *Mark Search & Edit* window to do the TD's as well. Just be sure to click on the yellow & red arrow button next to the *Exit* button so that TD's are listed instead of Lat/Long and then click the *New Mark* button to start entering TD's.

Add previously recorded marks from a floppy disk or USB memory stick (media).

Note: Marks are kept in a file by the name of MARKPNTS.DAT usually found in the PC-PLOTT directory. You can use *My Computer* or any other means to copy this file.

- 1 Place the media containing the mark data in the drive or USB port.
- 2 Click on *Data* in the plotter menu bar to call the Data menu.
- 3 Click on *Marks* to call the *Disk Data Manager* dialog box.
- 4 Click on *Get*.
- 5 Click on *Add To*.
- 6 Click on the small down-pointing arrow above the *OK* button to call the drive sub-dialog box.
- 7 Click on drive letter of the media in this sub-dialog box.
- 8 Click on the *OK* button and next click on *No* when it asks if this is

What you want:

What you do:

going to be the default drive. The mark data removable drive will be added to the mark data in RAM memory.

9 Now see *Save Marks* to save marks to hard drive.

Note: If you are reloading your marks, then do not **X** the *Add to* box.

Add range and bearing (R/B) flag to mark.

- 1 Click on *Marks* in the plotter menu bar to call the Marks menu. Then click on *Edit* from the screen.
- 2 Click on *Rng/Brng*. The mouse pointer will appear as a R/B flag icon.
- 3 Place this icon over a mark and click the mouse button to toggle the R/B flag on/off and press the **Esc.** key to quit.

Add TD's to a mark description.

- 1 Click on *Window* from the plotter menu bar to call the Window menu.
- 2 Click on *Marks* from this menu to call the Marks menu.
- 3 Click on *Add TD's* to toggle this feature on/off. If TD's are not available from the GPS, *Add TD's* will not work.

Add track name to mark description (Automatically).

- 1 Click on *Window* from the plotter menu bar to call the Window menu.
- 2 Click on *Marks* from this menu to call the Marks menu.
- 3 Click on *Add Track Name* to toggle the name on/off. The name will be on when the category is checked (°).

Add (join) two tracks.

- 1 Show tracks to be joined on the screen. Change plotter range if necessary
- 2 Click on *Tracks* in the plotter menu bar to call the Track menu.
- 3 Click on *Previous*, next click on *Edit*, and then click on *Join* in the sub-menus as they appear. This will change the mouse arrow to the Join icon.
- 4 Place the cross hair of this icon on the **END** of a track to be joined and click the mouse.
- 5 Place the cross hair of the Join icon on the **END** of the other track and click the mouse. A solid line will join the open ends left by this action. (If you make a mistake, click on *Stop Changes*.) A dialog box will appear with the names of the two tracks asking if you are sure you want to join them. Click on *Yes* to finish joining the tracks.

Adjust bearing.

Note: This procedure will adjust all the bearings that the program calculates.

- 1 Click on *Adjustments* in the plotter menu bar to call the Adjustments menu.
- 2 Click on the sixth line in this menu, *Magnetic Variation*, to call Magnetic variation window.

What you want:

What you do:

- 3 Click on the slide bar for *All Calculated Bearing* to adjust. Changes made are immediate
 - 4 Click the *OK* button.
- Adjust chart position.
- 1 Click on *Adjustments* in the plotter menu bar to call the Adjustments menu.
 - 2 Click on the first item, *Adjust Chart Position* to call a dialog box that will ask if you want to clear current offsets.
 - 3 Click *Yes* in this box and the cursor will appear.
(The following will place the cursor on a reference point and then move that point to the proper Latitude / Longitude location, thus adjusting the chart to proper offsets.)
 - 4 Place the cursor on a point of land with a known position and double-click the mouse.
 - 5 Drag the cursor to the proper position as indicated by the Latitude and Longitude shown in the cursor box and double-click the mouse again. The screen will clear and the program will redraw the area with the new offsets added in.
- Adjust data averaging.
- 1 Click on *Adjustments* in the plotter menu bar to call the Adjustments menu.
 - 2 Click on the second line in this menu, *Averaging*, to call the *Averaging Rates* dialog box. This box has three horizontal scroll bars. The top scroll bar adjusts all input data, the second adjusts *speed data*, and the third adjusts *heading data*.
 - 3 Click on the right end of the scroll bar to increase averaging (smoothing) or on the left end to decrease averaging. The numbers shown in the line below the scroll bar indicates the values of the settings.
 - 4 Click on the *OK* button to confirm the setting.
- Adjust the maximum points per track.
- 1 Click on *Adjustments* in the plotter menu bar.
 - 2 Click on the seventh line of this menu, *Max Track Points* to call the *Change Maximum Track Points* dialog box. This box has a long horizontal scroll bar with buttons on both ends.
 - 3 Click on these buttons to adjust the maximum track point's value, which is indicated just below the scroll bar.
 - 4 When you have the value you want, click on the *OK* button or press **Enter**. A dialog box will appear letting you know that the program will end if you go through with the change.
 - 5 Click on the *OK* button. You will be prompted to save any new marks or tracks.
 - 6 Click on the *OK* button in the *EXIT* dialog box that appears and the program will end.
 - 7 Restart the program and the tracks will load with the new maximum track point value.

What you want:	What you do:
Adjust track color pallet	(Multi-color track mode only!) <ol style="list-style-type: none"> 1 Click on menu item <i>Track ' Current ' Color</i>. (Click the <i>Multi Color</i> button if you got the mono-color box.) 2 Click the <i>Customize Colors</i> Button. (If this button does not show then un-check the “92 Color” check box) 3 Click on the color to change in the color bar. 4 Select a new color from the menu that appears. 5 Click the <i>Apply Colors</i> button when finished.
Adjust track default color	(Color of a new track - Single color mode only) <ol style="list-style-type: none"> 1 Press F3 with cursor off and in plot mode. 2 Select the default color. 3 Click the <i>Set as Default</i> button.
Adjust track lines.	<ol style="list-style-type: none"> 1 Click on <i>Adjustments</i> in the plotter <i>menu bar</i> to call the Adjustments menu. 2 Click on the eight item, <i>Max Trk Lines</i> to call <i>Change Max Track Lines</i> dialog box. This box has a horizontal scroll bar with buttons on both ends. 3 Click on the buttons at the end of the scroll bar to increase or decrease the maximum track lines value as indicated in the box below the scroll bar. 4 Press Enter or click on the <i>OK</i> button to activate the number.
Auto save marks	<ol style="list-style-type: none"> 1 Select menu path <i>Marks ' Search & Edit</i>. 2 Then select menu path <i>Saving ' Auto-Save</i>. 3 Enter in the minutes between saves and click on <i>Ok</i> or click on <i>Cancel</i> to disable the auto-save mode. Note: program only checks to see if a save is necessary then saves only if marks have changed in some way.
Auto save Present Track	<ol style="list-style-type: none"> 1 Select menu path <i>Tracks ' Previous ' Search & Edit</i>. 2 Then select <i>Auto</i> then select <i>Auto-Save/Off</i>. 3 Enter in the number of minutes between saves and click on <i>Ok</i> or click on <i>Cancel</i> to disable the auto-save mode. Note: program only checks to see if a save is necessary then saves only if the present track has changed in some way.
Automatically enter your security code.	Start up WindPlot as normal, enter your start code ONCE and click the check box below where you enter your start code. Now all you will need to do is press enter when starting the program the next time.
Average NAV. information.	See "Adjust data averaging" on page 275

What you want:

Backup data.

What you do:

- 1 Click on *Backup* then *Do Backup* in the plotter menu bar to call the *Backup* dialog box.
- 2 Select the optional data you want to add in the five check boxes.

OR,

- Place a disk in the disk drive and click on the appropriate drive letter (A or B) to backup to a floppy disk.
- 3 Click on any one of the first eight columns for backing up to the hard drive (or select A or B if saving to a floppy).
 - 4 Click the *Change backup drive* if going to a flash drive. Click the *Backup* button to backup marks, tracks and other data selected.

Calibrate Present Position to Loran TD readout. (Loran-C is no longer available but you can use another device that has compensation and a ghost TD readout.)

- 1 Set WindPlot to readout present position in TD's and turn on TD grid.
- 2 Press **Ctrl-G** to call the TD calibration box.
- 3 Click the *Add New Point* button.
- 4 Click the *Ok* twice button.
- 5 Enter both TD's that your Loran is presently displaying. Press **Enter** after entering each TD reading.

Call the Mark EZ Button menu.

- 1 Click on *Marks* in the plotter menu bar to call the Marks Button Menu.
- 2 Click on *EZ Buttons* to call the *Mark Button Menu* that contains several EZ Buttons. Some features will not be available with EZ buttons on.

Call the Track EZ Button menu.

- 1 Click on *Tracks* in the plotter menu bar to call the Track menu.
- 2 Click on *EZ Buttons* and the EZ button window will appear.

Changing the GRI and/or TD slaves for a cal. point

- 1 First, position the vessel or the cursor in the area where the calibration point is.
- 2 Press **Ctrl-A** or click on *Options* ' *Conv. TD to LL* to call the TD conv box.
- 3 Click on *Set GRI* button.
- 4 Select the GRI and Slaves you desire.
- 5 Click on the *Apply* button and exit back to the plotter.

Change readout background (for raster charts only).

- 1 Click on *Window* in the plotter menu bar to call the window menu.
- 2 Select *Charts/Cartography* & click on *Raster* for the raster window.
- 3 Click on *Clear Backgrounds* to make the readouts clear or with the chart in the background.

Change P-Sea Bathy. scales.

When P-Sea charts are turned on you will see a check box just under the raster type buttons. Each time this is clicked it will change from *Use All Scales* to *Use Fishmap* to *Use Std. Bathy*. Use this to lock different types of Bathy. charts when using both to avoid scaling problems.

What you want:

Change to old-style bathy. charts

Change the border color between land and water.
(*P-Sea vector charts only*)

Change heading line color

Change land color.
(*P-Sea vector charts only*)

Change ocean color.
NOTE: Ocean color will also be the color of the screen when the program has no charts to display.

Change link line color.

What you do:

- 1 Click on *Window* in the plotter menu bar to call the window menu.
- 2 Click on *Charts/Cartography* then click on *Raster* to call the raster control menu.
- 3 Click the *P-Sea Soft.* Button then the *Plot Sheets* box.

- 1 Click on *Adjustments* in the plotter menu bar to call the Adjustments menu.
- 2 Click on *Plotter Colors* to the vector chart color box.
- 3 Click on the word *Border* on the top dialog box. The top should now read *Pick Border Color*.
- 4 Select a border color by clicking on any one of the color boxes in this dialog box.
- 5 Click on the *OK* button to confirm the selection. The screen will be redrawn with the new border color.

- 1 Click on *Window* in the plotter menu bar.
- 2 Click on *Heading/PP indicator*.
- 3 Click the *Heading Line* button in the window that appears.
- 4 Click the *Line color* button and select a color and exit.

- 1 Click on *Adjustments* in the plotter menu bar to call the Adjustments menu.
- 2 Click on *Plotter Colors* to call the plotter color box.
- 3 Click on *Land* at the top of the dialog box so it reads *Map Color*.
- 4 Select a color for the land by clicking on any one of the color boxes in this dialog box.
- 5 Click on the *OK* button to confirm the selection. The screen will be redrawn with the selected land color.

- 1 Click on *Adjustments* in the plotter menu bar to call the Adjustments menu.
- 2 Click on *Plotter Colors* to call the vector chart color box.
- 3 Click on *Ocean* to call the plotter color dialog box so the top reads *Pick Ocean Color*.
- 4 Select a color for the ocean by clicking on any one of the color boxes in this dialog box.
- 5 Click on the *OK* button to confirm the selection. The screen will be redrawn with the selected ocean color.

This also selects the color of the background when no charts are displayed

- 1 If the *EZ Buttons* are on, turn them off by clicking on the *Buttons off* button.
- 2 Click on *Marks* in the plotter menu bar to call the Marks menu.

What you want:

What you do:

- | | |
|--|--|
| Change COM port settings. | 3 Click on <i>Linking</i> .
4 Click on <i>Link Color = Mark Color</i> and the screen will be redrawn with the proper colors. |
| Change current track's name. | See <i>Select COM port</i> on page 299. |
| Change current track's description. | 1 Click on <i>Tracks</i> in the plotter menu bar to call the Track menu.
2 Click on <i>Current</i> to call a sub-menu.
3 Click on <i>Name & Desc.</i> in this sub-menu to call the <i>Current Track</i> dialog box.
4 Type the name you want to use in the box provided.
5 Click on the <i>OK</i> button. |
| Change cursor flash rate. | 1 Click on <i>Window ' Heading/PP indicator</i> in the plotter menu bar.
2 Click on <i>Boat as flashing dots</i> .
3 Use the scroll bar to set the flash rate
4 Click the <i>Exit</i> button to return to the program. |
| Change color & symbol of a group of marks. | 1 Click <i>Marks ' Mark Search & Edit</i> .
2 Use the search to get the marks you want to change listed.
3 Click on the number of the first mark to change and drag it down to the last so they are all highlighted
4 Press the space bar then select the color and shape you want.
5 Click on <i>Ok</i> .
<p style="text-align: center;">Or</p> 1 Follow steps 1 and 2 above.
2 Click the <i>Change</i> button at the bottom of the window.
3 Repeat for all marks. |
| Change depth unit readout | (Works only if a depth sounder is connected to WindPlot)
1 Click on the depth readout.
2 Answer <i>No</i> when it asked if you want <i>Dead Reckoning</i> .
3 Just click on <i>YES</i> when the kind of depth readout you want is asked. |
| Change display status of a group of marks. | 1 In the <i>Mark Search & Edit</i> window, group the marks you want to control by giving them a common name in the mark description followed by a colon. You may follow that description by another. |

What you want:

What you do:

- | | |
|---|---|
| Change information presented on the screen. | <ol style="list-style-type: none">2 Click on one of these marks in the <i>Show</i> column of the marks <i>Search & Edit</i>. The program will then ask you if you want to change all of the matching marks at the same time. |
| Change mark color. | <ol style="list-style-type: none">1 Click on <i>Windows</i> in the plotter menu bar to call the Windows menu.2 Click on the appropriate menu item to call a sub-menu or dialog box and follow the instructions on the screen. If you have trouble, consult the specific task in the Quick Reference or use the on-line Help. |
| Change mark description. | <ol style="list-style-type: none">1 Click on <i>Marks</i> from the plotter menu bar to call the Marks' menu.2 Click on <i>Search & Edit</i> in this menu to call the list of marks.3 Find the mark you want to change, and click on it in the column labeled <i>Color</i> to call the <i>Select New Mark</i> dialog box.4 Click on your color choice in this dialog box. A red border will appear around the color you have selected.5 Click on the <i>OK</i> button to confirm your selection.6 Click the <i>Exit</i> button or press Esc. |
| Change mark display status. | <ol style="list-style-type: none">1 Click on <i>Marks</i> from the plotter menu bar to call the Marks' menu.2 Click on <i>Search & Edit</i> in this menu to call the list of marks.3 Find the mark you want to change, and use the horizontal scroll bar as necessary to bring the last column containing the mark's description into view.4 Click on the description column of the mark you want to change to call the mark description dialog box.5 Click in the box(s) that this dialog box provides and make modifications.6 Click on the <i>OK</i> button when finished. Then click the <i>Exit Search</i> button.7 Save your marks or quit the program by using the <i>Exit</i> from the <i>Data</i> menu that will save the marks automatically. |
| Change mark's Latitude/Longitude. | <ol style="list-style-type: none">1 Click on <i>Marks</i> in the plotter menu bar to call the Marks' menu.2 Click on <i>Search & Edit</i> in the Marks' menu to call the Marks' list.3 Click on the mark in the column that lists the aspect of the mark display that you want to change. That is, click on <i>Show</i> to turn on/off the mark on the screen, click on <i>R&B flag</i> to turn on/off the range and bearing flag displayed next to the mark, or click on <i>Print</i> to turn on/off the portion of the mark description that follows a colon.4 Click the <i>Exit Search</i> button. |
| Change mark's Latitude/Longitude. | <ol style="list-style-type: none">1 Click on <i>Marks</i> in the plotter menu bar to call the Marks' menu.2 Click on <i>Search & Edit</i> in this menu to call the list of marks.3 Find the mark you want to change.4 Click on Latitude and type in its new value. You do not need to type the degree or minutes symbol. Just type the numbers, the decimal |

What you want:

What you do:

point and the letter N or S. Use the format DDMM.MMM. (If TD's are showing, click the yellow and red arrow button next to the Exit button to change to Lat/Long).

- 5 Click on the Longitude and type in its new value.
- 6 Click on the *Exit Search* button.
- 7 Save your marks or quit the program by using the *Exit* from the Data menu that will save the marks automatically.


Change mark size.

- 1 Click on *Window* in the plotter menu bar to call the Window menu.
- 2 Click on *Marks* in this menu to call the marks sub-menu.
- 3 Click on *Edit*.
- 4 Click on *Size* and enter a number from 1 to 10.

Change mark symbol.

- 1 Click on *Marks* in the plotter menu bar to call the Marks' menu.
- 2 Click on *Search & Edit* in the Marks' menu.
- 3 Find the mark you want to change from the list.
- 4 Click on the symbol for the mark you want to change (in the *Symbol* column). This will call the *Select New Mark* dialog box.
- 5 Click on the symbol you want the mark to have. The symbol will be framed in a thin red line.
- 6 Click on the *OK* button in the dialog box.
- 7 Click on the *Exit Search* button in the upper right of your screen.

Change plotter range.

- 1 Click on the **Range** icon, which is located in the upper-left of the screen to call the *change range* dialog box (or press F4). 
- 2 Type in the desired range or use the scroll bar to change it.
- 3 Click on the *OK* button.

Change position of mark name.

- 1 Click on *Window* in the plotter menu bar to call the Window menu.
- 2 Click on *Marks* to call the Marks sub-menu.
- 3 Click on *Names on Left* to change the position of the name of the mark. The name will be to the left of the mark when this column is checked.

Change TD grid brightness.

You can change the color of the lines between **bright or normal**.

- 1 Press **Ctrl-A** or click on *Options ' Conv. TD to LL* to call the TD conv box.
- 2 Click on *Set Grid*.
- 3 In the *Grid Setting* window, click the *Bright TD Grid* to change line brightness.

Change TD grid color.

You can **manually** change colors as well. When you select your own set of colors the *Bright TD Grid* check box will be disabled.

- 1 In the *TD Grid Setup* window, click on the *Color I* button.
- 2 Click on the color you desire then click *Ok*.

What you want:

What you do:

Changing TD grid line spacing and density

- 3 Repeat this for *Color 2* button. Colors are applied automatically no need to press the *Apply* button.

To change the TD grid density:

- 1 Press **Ctrl-A** or click on *Options* ' *Conv. TD to LL* to call the TD conv box.
- 2 Click on *Set Grid*.
- 3 In the *TD Grid Setup* window, click on the up/down arrows to change the density number from 1 to 10 (set it to 10 to turn off density control).
- 4 Click the *Apply* button to have changes take effect.


To change the TD grid line spacing:

- 1 Press **Ctrl-A** or click on *Options* ' *Conv. TD to LL* to call the TD conv box.
- 2 Click on *Set Grid*.
- 3 In the *TD Grid Setup* window, click on the up/down arrows to change the density number to 10.
- 4 Click on the white area next to *M.sec spacing TD1/TD2* and enter the desired line spacing in Loran microseconds for both lines.
- 5 Click the *Apply* button, exit the setup and see if the spacing was correct. Repeat if necessary.

Change TD Grid calibration point.

- 1 Press **Esc** key to make sure cursor is off and then press **Ctrl-A** to call the TD cal. menu.
- 2 Click on the *Set Grid* button, then click the down arrow at the bottom-right of the Set Grid window.
Select a point by clicking on the up/down arrow buttons.
- 3 Click the Set GRI button and select a new GRI/Slave.
- 4 Click the *Apply* button and exit.

Change track color.


- 1 Change range if necessary, so that the track you want to change is on the screen.
 - 2 Click on *Tracks* in the plotter menu bar to call Track menu.
 - 3 Click on *Previous* to call a sub-menu.
 - 4 Click on *Edit* in this sub-menu to call another sub-menu.
 - 5 Click on *Color* in this menu to call the change icon. 
 - 6 Place this change icon over the track you want to change and click the mouse button to call the *Pick Track Color* dialog box.
 - 7 Click on the new color then click on the *OK* button.
 - 9 Click on *Stop Changes* button in upper left of the screen.
- Note:** You can also use the track search & edit list for this.

Change track description.


- 1 Change range if necessary, so that the track you want to change is on the screen.
- 2 Click on *Tracks* in the plotter menu bar to call the Track menu.

What you want:

What you do:

- 3 Click on *Previous* to call a sub-menu.
 - 4 Click on *Edit* in this sub-menu to call another sub-menu.
 - 5 Click on *Description* to call the change icon. 
 - 6 Place this change icon over the track you want to change and click the mouse button to call the *Track* dialog box.
 - 7 Click in the description box in this dialog box and type your description.
 - 8 Click on the *OK* button.
 - 9 Click on *Stop Changes* button in upper left of the screen.
- Note:** You can also use the track search & edit list for this.


Change track display status.

- 1 Change range if necessary so that the track you want to change is on the screen.
 - 2 Click on *Tracks* in the plotter menu bar to call Track menu.
 - 3 Click on *Previous* to call a sub-menu.
 - 4 Click on *Select On* to call the change icon. 
If *Show All* is selected, click on *Yes* in the dialog box that appears.
 - 5 The screen will redraw with the tracks that are currently off shown in black. Place the change icon over the track you want to change and click the mouse button to toggle the track display on/off. (Tracks that are showing black will be hidden and those showing colors will show on your screen when the screen is redrawn.)
 - 6 Click on the *Stop Changes* button in the upper left of the screen to confirm your changes.
- Note:** You can also use the track search & edit list for this.

Change track modes

You will see a new check box, “*ontinuous Tracking*” in the upper-left of the *Track Search and Edit* menu. When this box is checked (), WindPlot will track as it always has, tracks will be one continuous line from start to finish. When unchecked, no track lines are visible when tracking duration is set to HALT, then it resumes track lines when you change the duration back to a standard value like every 10 seconds leaving a gap where it was on HALT.

Change track width.

- 1 Change range if necessary so that the track you want to change is on screen.
- 2 Click on *Tracks* in the plotter menu bar to call Track menu.
- 3 Click on *Previous* to call a sub-menu.
- 4 Click on *Edit*.
- 5 Click on *Width* to call the change icon. 
- 6 Place this change icon over the track you want to change and click the mouse button to call the *Select Track Width* dialog box.
- 7 Use the scroll bar to change the track width.
- 8 Click on the *OK* button.
- 9 Click on the *Stop Changes* button in upper left of the screen.

What you want:

What you do:

Note: You can also use the track search & edit list for this.

Change Plotter Window Fonts.

Changing fonts in full screen mode

In full screen mode, you have individual control of seven screen printouts: Range, Present Position, Track Duration/Name, Vessel Speed/Heading, Waypoint and A-B Line. You can have different font sizes and names for each, but they must all be the same color.

- 1 Click on *Window* in the WindPlot menu bar.
- 2 Click on *Window Fonts & Units* near the bottom of the list.
- 3 Click one of the 7 readouts to activate it for changing.
- 4 Click the down arrow and click on one of the names to change the type of print.
- 5 Click on one of the Up/Down arrows to change the size of fonts. (The readout will change to reflect the choice you have made.)
- 6 Click on another readout to change or click on the *Exit/Ok* button when finished.

Clean up duplicate marks

Choose this to clear out any erased and duplicate marks you may have. To cleanup marks, select *Marks ' Search and Edit* to call the mark menu. Then select *Saving ' Clear erased/dup marks and save*.

Clean up duplicate tracks.

- 1 Click on *Tracks ' Previous ' Edit ' Clean Up*.

Clear all marks from RAM and/or disk memory.

- 1 Click on *Marks ' Clear All*.

Clear all Tracks from hard drive.

- 1 Click on *Tracks ' Previous ' Clear All*.
Caution: This leaves no chance of recovering tracks cleared.

Clear Search Buttons

Clears any search criteria from either marks or tracks in the Search and Edit windows. In the Mark Search & Edit, the button is located the lower-left of the window and in the Track Search & Edit and, it is located just below the Text Search and is labeled "*Reset Search*".

Copy tracks on C drive to a floppy disk.

- 1 Place a formatted floppy disk in drive A: or B:
 - 2 Click *Data* then click *Tracks*.
 - 3 Click *OK* in the *Disk Data Manager* dialog box.
- Note:** Do not check *Add To* unless there are track files on the floppy that are different from the ones you have on your C drive.

Copy P-Sea vector charts to a floppy disk.

- 1 Place a floppy disk in drive A: or B:
- 2 Click on *Data* then click *Charts*.
- 3 Click on *No* since you are not installing new charts.
- 4 Click on *OK*.
- 5 In a few seconds, a dialog box will appear. Click on *All Files* if you want to copy all files to the floppy disk.

What you want:

Copy Groups of Marks

What you do:

- 1 Click on *Marks* in the plotter menu bar to call the Marks' menu.
- 2 Click on *Search & Edit* (the last item in this menu) to call the list of marks.
- 3 Get the marks you want copied to list using any search criteria.
- 4 Click the *Copy* button that appears at the bottom of the window.
- 5 Place a blank floppy in the drive and click on *Yes*.

Create custom columns for marks.

- 1 Click on *Marks* in the plotter menu bar to call the Marks' menu.
- 2 Click on *Search & Edit* (the last item in this menu) to call the list of marks.
- 3 Click on *Custom Options* then select *Customize Description Column* to call the custom column dialog box.
- 4 Type in the heading for the new column. The width of the column will depend on the length of the heading. You must add spaces if you want the column wider, or abbreviate if you need the column to have less width. Keep in mind you only have 77 spaces for all 4 columns and the main description.
- 5 Press **Enter** and the heading you typed will appear in the Custom Columns dialog box.
- 6 Click on the *OK* button and the list will appear with the new column.

Create custom columns for tracks.

- 1 Click on *Tracks* in the plotter menu bar to call the Track menu.
- 2 Click on the last item in this menu, *Search and Edit*, to call the *Track Search List*.
- 3 Click on *Custom Columns* in the menu bar near the top of this screen.
- 4 Type in the heading for the new column. The width of the column will depend on the length of the heading, so add spaces if you want the column wider, or abbreviate if you need the column to have less width.
- 5 Press **Enter** and the heading you typed will appear in the Custom Columns dialog box.6 Click on the *OK* button and the list will appear with the new column.

Create routes.

- 1 Click on *Options* in the plotter menu bar.
 - 2 Click on *Routes/Waypoints*.
 - 3 Select one of the four ways to enter a route.
- Note:** Button bar 2 has a route button - click on the "-" at the top of the button bar and click 2nd button bar to call it. This will allow you to make a mark from the plotter screen.

Customize keyboard for making marks

Any key A-Z can be programmed to make any mark in any color.

- 1 In WindPlot's menu bar click on *Marks' Search & Edit*
- 2 In the *Search & Edit* menu bar click on *Custom Options* then

What you want:

What you do:

- select *Customize the keyboard*.
- 3 Then just enter the key and mark you want when asked.
- Delete groups of marks
- 1 Click *Marks* ' *Mark Search & Edit*.
 - 2 Use the search to get the marks you want to delete listed.
 - 3 Click on the number of the first mark to delete and drag it down to the last so they are all highlighted
 - 4 Press the **Delete** key on the keyboard of the computer.
- Or**
- 1 Follow steps 1 and 2 above.
 - 2 Click the *Delete* button at the bottom of the window.
 - 3 Click on *Yes* to delete all marks listed.
- Delete marks using cursor
- 1 Press **F2** from the plotter screen to turn on the cursor.
 - 2 Place the cursor on the mark to delete.
 - 3 Click on the "*Delete Mk*" button on the *Cursor Info* box marks.
- Delete Marks by proximity to each other.
- 1 Click on *Marks* in the plotter menu bar then click *Mark Search & Edit*.
 - 2 Click on *Extended Search* in the mark list.
 - 3 Select *Delete by Proximity*.
 - 4 Enter in a maximum range in nautical miles. This can be as small as .001nm. Any smaller and the list by proximity is turned off. Select whether you want automatic deletion or prompt before deleting. Remember, you can always restart the program without saving to recall deleted marks.
- Delete Vector chart(s) from the hard drive.
- 1 Click on *Data* in the plotter menu bar to call the Data menu.
 - 2 Click on *About* in this menu to call the *About P-Sea WindPlot Data Files* dialog box.
 - 3 Click on the arrow next to box containing the words *Chart List* to call a list of charts.
 - 4 Click on any of the charts in this list that you want to delete or on *Delete All* to delete all chart files. This will call a dialog box that asks if you want to delete the file(s) you have selected.
 - 5 Click on *Yes* to delete the chart(s).
- Delete Mark(s) from RAM memory.
- 1 Click on *Marks* in the plotter menu bar to call the Marks' menu.
 - 2 Click on *Clear All*. This will call a dialog box asking if you are sure if you want to clear all marks. Click on *Yes* and this will call the *Clearing marks from RAM* dialog box.
 - 3 Click on *Yes* to exempt the land marks or on *No* to clear all marks.
- Delete raster charts.
- 1 Click on *Window* from the plotter menu bar to call the Window menu.

What you want:

What you do:

- 2 Click on *Charts/Cartography*, then click *Raster* to call the Raster control panel.
- 3 Click the *Type of Raster* to display the raster chart files in the list.
- 4 Click the trash can button labeled *Delete a chart*.
- 5 Use the scroll bars to find the file to delete and click on it.
- 6 Click on *Yes* from the dialog box that asks if you're sure you want to delete this file.
- 7 Click on *Exit* and return to the plotter display.

Note: Some raster chart files consist of many files. You will have to delete all files with the same prefix to delete the entire chart.

Disable cursor (split mode)

- 1 Select menu item *Window ' Split Screen*.
- 2 In the split screen menu click on the *Disable Cursor* check box. This disables the cursor from coming on in the right side of the split screen. This means that when this box is checked (°), you can pan around in the left screen while still watching your tracking position in the left screen

Display chart(s).

- 1 Click on *Window* from the plotter menu bar to call the Window menu.
- 2 Click on *Charts/Cartography*, which is the fourth item in this menu, to call a sub-menu.
- 3 Click on *Raster* or *Vector*, depending on the type of chart you want to display to call a sub-menu.
- 4 Click on *Charts On* in the vector chart menu to toggle on/off those charts, or for raster charts, click the appropriate raster type button in the raster control panel and set the drive and directory where they are located. Next click on *Exit*.

Display mark TD's.

- 1 Click on *Window* in the plotter menu bar to call the Window menu.
 - 2 Click on *Marks* in this menu to call the Marks sub-menu.
 - 3 Click on *Add TD's* to toggle on/off the TD's.
- Note:** If you want the TD to display on screen then change the * to a colon: in the marks description.

Display Track Names

- 1 Click on *Tracks* in the plotter menu bar to call the Track menu.
- 2 Click on *Previous* in this menu to call a sub-menu.
- 3 Click on *Names On* in this sub-menu to toggle on/off the display of track names at the beginning of tracks. Checked = ON

Display track.

- 1 Click on *Tracks* in the plotter menu bar to call the Track menu.
- 2 Click on *Previous* to call the Edit sub-menu.
- 3 Click on *Select On* to call the select icon.
The screen will redraw the tracks that are currently off in black.
- 4 Click on the track(s) you want to display.

What you want:

What you do:

- Edit Mark Symbols.
- 1 Click on *Mark* in then select *Search & Edit* at the bottom.
 - 2 Click on *Display Option* to call another menu.
 - 3 Click on *Edit mark symbols* to call the mark symbol editor. (Refer to Chapter 2, Long Menus, on the Window menu for details of how to run the editor.)
- Enter current track's description.
- 1 Click on *Tracks* in the plotter menu bar to call Track menu.
 - 2 Click on *Current* in this menu to call a sub-menu.
 - 3 Click on *Name & Desc.* to call the *Current Track* dialog box.
 - 4 Click on the box under the name of the track and type the description.
 - 5 Click on the *OK* button.
- Enter your security code.
- 1 Double-click on the plotter icon on the Windows desktop to start the plotter program.
 - 2 Wait for the serial and copyright dialog box to appear.
 - 3 Use the number keys along the top of the keyboard to type in your security code. Use the backspace key to erase any mistakes you make.
 - 4 Press **Enter**.
- Entering a new TD grid calibration point.
- 1 First, position the vessel or the cursor in the area where the new calibration point will be.
 - 2 Press **Ctrl-A** or click on *Options ' Conv. TD to LL* to call the TD conv. box.
 - 3 Click on *Set Grid*.
 - 4 Click on the *New* button and a new calibration point is created.
 - 5 ***If you need to change the GRI or Slaves***, do so now by following steps 1 and 2 again, then click the *Set GRI* button. Change the GRI and Slaves accordingly then ***make sure the Estimated Lat/Long is correct.***
 - 6 Click on *Set Grid* and then the *Apply* button to keep the changes to the GRI and Slaves.
 - 7 Press **Ctrl-G** to call the Grid Cal. if offsets are needed.
- Erase marks from the plotter screen.
- 1 Click on *Marks* in the plotter menu bar to call the Marks menu.
 - 2 Click on *Edit from Screen* to call a sub-menu.
 - 3 Click on *Erase* to call the eraser icon.
 - 4 Use the mouse to move this icon over the mark to be erased. The selected mark will start blinking.
 - 5 Click the *OK* button to erase the mark.
 - 6 Click on the *Stop Changes* button in the upper left of the screen.

What you want:

Erase mark using the Search Menu.

What you do:

- 1 Click on *Marks* in the plotter menu bar to call the marks menu.
- 2 Click on *Search & Edit* in the marks menu to call the marks list.
- 3 Click on the mark in the *Range & Brng.* column to call the *Erase a Mark* dialog box.
- 4 Click on *Yes* to erase the mark.

Erase part of a track.

- 1 Change range if necessary so that the track you want to edit will be displayed on the screen.
- 2 Click on *Tracks* in the plotter menu bar to call the Track menu.
- 3 Click on *Previous* to call the Edit sub-menu.
- 4 Click on *Edit* to call another sub-menu.
- 5 Click on *Partial Erase*.
- 6 Click on the *Yes* button if the track you want to edit is hidden. The mouse icon will now appear as a pencil eraser.
- 7 Click on the track to be erased. This calls a dialog box that asks you if you want to erase a track by name.
- 8 Click on *Yes*, and the screen will redraw with only that track showing.
- 9 Click on the beginning of the area you want to erase.
- 10 Click on the other end of the section to be erased and part of the track will disappear.
- 11 Click on *Stop Changes*.
- 12 Click on *Yes* in the dialog box that asks if you are sure you want to erase part of the track.

Erase a track.

- 1 Change range if necessary so that the track you want to edit will be displayed on the screen.
- 2 Click on *Tracks* in the plotter menu bar to call the Track menu.
- 3 Click on *Previous* to call the Edit sub-menu.
- 4 Click on *Edit* to call another sub-menu.
- 5 Click on *Whole Erase* and the mouse icon will change to a pencil eraser and the screen will redraw all tracks showing.
- 6 Click on the track to be erased and the screen will be redrawn with the track just erased now colored in black.
- 7 Confirm the erasure by clicking on the *Stop Changes* button.

Exit Program.

Click on "X" in upper right of the WindPlot window

Find a mark.

- 1 Click on *Marks* in the plotter menu bar to call the Marks menu.
- 2 Click on *Search & Edit* in this menu to call the list of marks.
- 3 Set the **INCLUDE** and **SEARCH METHOD** to your specifications.
- 4 Use the keyboard to enter the keyword that will identify the mark you are looking for.
- 5 Search is launched for each character that is typed in.

What you want:

Find a track.

What you do:

- 1 Click on *Tracks* in the plotter menu bar to call Tracks menu.
- 2 Click on *Search & Edit* to call the Track Search List.
- 3 Set *SEARCH IN:*, *START AT*, *WIDTH :*, and *SEARCH ONLY* to your specifications.
4. Type the letters or numbers that match the name or description of the track you want to find. (The search is not case sensitive.) The track will appear in the list when the proper match is found.

Group marks (so that you can turn them on/off as a group).

- 1 Put a brief name of the group followed by a colon (:) at the beginning of the name of all marks to be turned on/off together.

Install BSB charts.

FROM FLOPPY DISK:

- 1 Click on *Data* in the plotter menu bar.
- 2 Click on *Charts* from the Data menu.
- 3 Place disk #1 in the floppy drive and click on *Yes* to install new charts.
- 4 When prompted, place the next disk in the floppy drive and click on *OK*.
- 5 Repeat #4 until all disks are loaded.

FROM a CD:

- 1 Place the CD in the CD drive.
- 2 Start WindPlot if not already going and press **Ctrl-N** to call the raster menu.
- 3 Click the button labeled *BSB/NDI* in the lower right of the raster menu.
- 4 Change the drive to the CD by clicking the down arrow in the drive select box and select the drive letter for your CD.
- 5 Click the *Use Default Directories* and the *Update* buttons to get your CD show in the list and exit the menu to see your charts. Leave the CD in place while in operation.

You will notice the Default button change to a Copy button when the CD is set properly. You can use this to copy the contents of the CD to your hard drive. This allows you to run the charts from the hard drive and remove the CD.

Install Maptech Charts.

FROM FLOPPIES

- 1 Quit WindPlot if it is already running.
- 2 Place the first floppy then A (or B) drive.
- 3 Type the word **A:INSTALL** (or B:INSTALL) at the Windows RUN menu. You will find this by clicking the *Start* button in Win95 and from the program managers FILE menu in Win3.1.
- 4 Follow the instructions on screen from there and set the install for *True Charts*.

FROM a CD:

- 1 Place the CD in the CD drive.
- 2 Start WindPlot if not already going and press **Ctrl-N** to call the

What you want:

Install Maptech Charts (cont.)

What you do:

- raster menu.
- 3 Click the button labeled *P-Sea Soft.* in the lower right of the raster menu.
 - 4 Change the drive to the CD by clicking the down arrow in the drive select box and select the drive letter for your CD.
 - 5 Click the *Use Default Directories* and the *Update* buttons to get your CD show in the list and exit the menu to see your charts. Leave the CD in place while in operation.

Note: You will notice the Default button change to a Copy button when the CD is set properly. You can use this to copy the contents of the CD to your hard drive. This allows you to run the charts from the hard drive and remove the CD.

Note: You must first convert the NDI vector charts to P-Sea vector type with the NDI2VEC program. This program is provided free upon request from P-Sea Software. Then install the charts as you would any P-Sea Software vector charts

Install P-Sea Software raster Bathymetric charts.

FROM a CD:

- 1 Exit WindPlot if it is running.
- 2 Place the Hi-Res. Bathy. CD in the CD drive.
- 3 Restart WindPlot.
- 4 Enter your serial number to enter the program.
- 5 A message box will appear saying WindPlot has found bathy charts on the CD, would you like to install them?
- 6 Click on yes.
- 7 Several message boxes will ask which drive to copy it too. Pick the drive you want and wait for it to complete the copy to the hard drive.
- 8 When finished with the copy, the charts should list and the program should switch back to the drive you copied the charts to.
- 9 Click the *Exit* button and you are done.

Install P-Sea WindPlot.

- 1 Close all running programs and then insert the WindPlot Setup CD in the CD drive.
- 2 Click on *New P-Sea WindPlot (Max or II)*
- 3 Click on *P-Sea WindPlot (Max or II) full install.*
- 4 Click on *Next* in the opening screen then read the *License Agreement* and select *Yes* to cont.
- 5 If you are ok with the default folder then click on "*Next*".
- 6 Wait for files to copy, click on finish, remove the CD & restart Windows if asked to do so. (it is normal to get a couple of errors during the install.)

Install P-Sea Vector charts.

Click on *Data* menu and select *Charts.*

What you want:

Inserting marks in the mark list

What you do:

(Moves a mark to a different place in the Mark Search & Edit list)

- 1 Select menu path: *Marks ' Search & Edit*.
- 2 Right-Click on the mark number to move.
- 3 Type in the number of the mark just prior to where you want it moved to.

Join track files.

- 1 Click on *Tracks* in the plotter menu bar to call the Tracks menu.
- 2 Click on *Previous* to call the Edit sub-menu or the Previous Track Edit EZ buttons.
- 3 Click on *Edit*.
- 4 Click on *Join* to change the mouse icon into the Join icon.
- 5 Use the mouse to place the Join icon over the END of one track to be joined and click the mouse. The elastic line will attach itself to the end of this track. (If it's the wrong track, click on the *Stop Changes* button and try again.)
- 6 After the first track is selected, the icon should change to a similar one with the arrow reversed.
- 7 Click on the end of the other track.
- 8 Click on *Yes* in the Joining Tracks dialog box to join these two tracks.

Link mark to track.

- 1 Click on *Window* in the plotter menu bar to call the Window menu.
- 2 Click on *Tracks* to call a sub-menu.
- 3 Click on *Link to Marks* to toggle on/off the linking of marks to tracks. Marks will not turn off when track is off.

Link marks together.

- 1 Adjust the range and position of the chart so that the marks you want to link are on the screen.
- 2 Click on *Marks* in the plotter menu bar to call the Marks menu.
- 3 Click on *Linking...* to call a sub-menu.
- 4 Click on *Link marks* in this sub-menu to call a mouse icon in the form of a hand.
- 5 Place this icon over one of the marks and drag it to the other mark. Notice that a line stretches between the first mark and the hand as you drag it to the second mark.
- 6 Click on the *Stop Changes* button in the upper left of the screen when finished.

List Marks.

- 1 Click on *Marks* in the plotter menu bar then click *Mark Search & Edit*.

List Marks by proximity to each other.

- 1 Click on *Marks* in the plotter menu bar then click *Mark Search & Edit*.
- 2 Click on *Extended Search* in the mark list.
- 3 Select *Delete Marks by Proximity to each other*.4

What you want:

List Marks by proximity to each other (cont.).

What you do:

Enter in a maximum range in nautical miles. This can be as small as .001nm. Any smaller and the list by proximity is turned off. Select whether you want automatic deletion or prompt before deleting. Remember, you can always restart the program without saving to recall deleted marks.

List Tracks by data type.

- 1 Click on *Tracks* in the plotter menu bar
- 2 Click on *Search & Edit*.
- 3 Click the check box at the bottom of the track list window.
- 4 Enter the number that corresponds to the data type you want to list.

Load Andren mark files.

- 1 Click on *Marks* and then on *Search and Edit*.
- 2 Click on *Import*, then click on *Import Andren files*.
- 3 Click on the file you want to convert and load from the list. All files must be in the LORAN or LORANGPS directory. The program looks for DT0 and DFB files.

Lock COM ports

- 1 Click on *Adjustments* in the plotter menu bar.
- 2 Click on *Chg.COM ports/Time*.
- 3 Click the *Lock Ports* check box at the very bottom-right.

Lock TD Calibrations

- 1 Click on *Options* in the plotter menu bar.
- 2 Click on *Conv. TD's to L/L*.
- 3 Click on the *Set Grid* button.
- 4 Click the *Advanced* button.
- 5 Click the *Lock calibrations* check box so it is checked (°).

Lock TD GRI/Slave settings

- 1 Click on *Options* in the plotter menu bar.
- 2 Click on *Conv. TD's to L/L*.
- 3 Click on the *Set Grid* button.
- 4 Click the *Advanced* button.
- 5 Click the *Lock GRI/SLAVES to first cal. point* check box so it is checked (°).

Man Over Board.

- 1 Click the seventh button down on the button bar to activate man over board alarm.
- 2 Click the same button again to deactivate it.

Move/Delete Loran Cal. Points

- 1 Press **Ctrl-G** then click the *Show Points* button.
- 2 Press **F2** and place the cursor on the calibration point to delete.
- 3 Click on the data display that appears in the mid-lower portion of the screen showing the data for that calibration point
- 4 Click on *Yes* to delete it, click on *No* to move it to another BIGTD file. If you decide to move it, you will be asked what file name to move it to. The file names allowed are BIGTD.DAT, BIGTD1.DAT, BIGTD2.DAT...BIGTD9.DAT.

What you want:

Move cursor to
Longitude/Latitude position.

What you do:

- 1 Make sure that the cursor is on (click on the cursor button in the upper left of the screen to toggle the cursor on/off or press **F2**).
- 2 Use the **Del** key to delete the Latitude in the *Cursor Information* box and type the Latitude of the desired cursor position in degrees, minutes, and hundredths of a minute, then press **Enter**.
- 3 Click in the *Long.* box, delete the Longitude, and enter the Longitude of the desired cursor position in a similar manner.

Move cursor to range and
bearing from the vessel.

- 1 Make sure the cursor is on. (Click on the cursor button in the upper left of the screen to toggle cursor on/off.)
- 2 Click in the *Range* box of the *Cursor Information* box and type in the desired range, then press **Enter**.
- 3 Click in the *Brng.* box of the *Cursor Information* box and type the desired bearing and press **Enter**.

Move the cursor using the
keyboard.

- 1 Make sure that the cursor is on. (Click on the cursor button in the upper left of the screen to toggle the cursor on/off.)
- 2 Press and hold an arrow key to move the cursor in the direction the arrow points. If you move the cursor to the edge of the screen and release the arrow key, the screen will advance to the next screen.

Move (copy) mark and track
data from disk to RAM.

- 1 Click on *Data* in the plotter menu bar to call the Data menu.
- 2 Click on either *Marks* or *Tracks* in this menu (depending on the type of data you'll move) to call the *Disk Data_Manager* dialog box.
- 3 Click on *Get* in this dialog box.
- 4 Click on the small **9** arrow and select the source drive by clicking on the appropriate drive letter.
- 5 Click on the **OK** button and the program will read the data to RAM from disk.

Move mark.

- 1 Click on *Marks* in the plotter menu bar to call the Marks menu.
- 2 Click on *Edit From Screen* to call the dialog box.
- 3 Click on *Move* in this dialog box to call the mouse icon in the form of a hand.
- 4 Drag the mark to its new location.

Name track.

- 1 Click on *Tracks* in the plotter menu bar to call the Track menu.
- 2 Click on *Current* in this menu to call a sub-menu.
- 3 Click on *Name & Desc.* in this sub-menu to call the *Current Track* dialog box.
- 4 Type in the name you want it to have. (Names are limited to 11 characters.)
- 5 Click the **OK** button.

What you want:

Plot listed marks only

What you do:

- 1 Click on *Marks* in the plotter menu bar.
- 2 Click on *Search & Edit*.
- 3 Use any search criteria to list the tracks you want plotted.
- 4 Click the *Plot listed marks only* check box in the lower right of the mark list window and exit to the plotter screen.

Plot listed tracks only

- 1 Click on *Tracks* in the plotter menu bar.
- 2 Click on *Search & Edit*.
- 3 Use any search criteria to list the tracks you want plotted.
- 4 Click the *Plot listed tracks only* check box in the lower left of the track list window and exit to the plotter screen.

Move vessel on computer screen.

- 1 Hold down one of the arrow keys on the keyboard and release when the vessels' icon gets to where you want the vessel to be.

Print marks on printer.

- 1 Click on *Marks* in the plotter menu bar to call the Marks menu.
- 2 Click on the last item in this menu, *Search & Edit*, to call the Marks list.
- 3 Turn on the printer and click on *Print*.
- 4 Click on *Print All Listed* to print the entire list or on *Print Page* to print the page to paper.
- 5 Click on *OK* when the printer is ready.

Print mark names to the left of marks.

- 1 Click on *Marks* in the plotter menu bar and select *Search & Edit*.
- 2 Click on *Display Option* in the Marks List menu.
- 3 Click on *Names On Left* to toggle on/off printing to the left.

Print Plot.

- 1 Click on *Window* in the WindPlot menu bar.
- 2 Click on *Print/Record Plot*.
- 3 Select landscape (scalable) or portrait.
- 4 Click on *Print Full Screen* or *Print Just Plot*

Quit program.

- 1 Click on *Data* in the plotter menu bar to call the Data menu.
- 2 Click *Exit* which is the last item in this menu to call the *Save Marks?* and *Save Track?* dialog boxes.
- 3 Click on *Yes* to save any new marks. Another dialog box will ask if you want to quit the program.
- 4 Click on *Yes* to exit the program.

Recalibrate tracks

- 1 Click on *Tracks* in the plotter menu bar to call the Tracks menu.
- 2 Click on *Search & Edit* from the menu list.
- 3 Click the *Recalibrate* button located in the lower right of the list.

Record a track.

- 1 Click on *Tracks* in the plotter menu bar to call the Tracks menu.
- 2 Click on *Current* in this menu to call a sub-menu.
- 3 Click on *Save* in this sub-menu.

What you want:

Recalling saved BIGTD files

What you do:

- 1 Make sure you have a memory stick plugged in before starting WindPlot then call up the TD calibration window by pressing **Ctrl-A**, then click the *Set Grid* button.
- 2 Click the *Advanced* button.
- 3 Select the proper BIGTD# and click the *Get/Add to current BigTD* button.
- 4 Choose *Yes* for automatic search, change the drive letter to the memory sticks drive and click *Search Now*.
- 5 Click on BIGTD file to load and the click *Open* to add file.

Redraw screen.

- 1 Press the **Home** key or double-click the left mouse button.

Record information in a track custom column.

- 1 Click on *Tracks* in the plotter menu bar to call the Track menu.
- 2 Click on *Search & Edit* to call the *Track Search List*.
- 3 Find the track and click on it in the custom column.
- 4 Use the keyboard to type in the information.
- 5 Click on *Exit* when finished.

Remove the RB flag from a mark.(or add)

- 1 Click on *Marks* in the plotter menu bar to call the Marks menu.
- 2 Click on *Edit From Screen* to call a sub-menu.
- 3 Click on *Rng/Brng* to call the RB flag icon mouse pointer.
- 4 Place this icon over a mark and click the mouse button to toggle the RB flag on/off.

Rename a track.

- 1 Click on *Tracks* in the plotter menu bar to call a sub-menu.
- 2 Click on *Search & Edit* to call the *Track Search List*.
- 3 Click on the name of the track you want to change and press **Del**.
- 4 Type in the name you want it to have. (Names are limited to 11 characters.)
- 5 Press **Enter**.
- 6 Click on the *Exit* button.

Reset all plotter functions to factory settings.

- 1 Click on *Window* in the plotter menu bar to call the Window menu.
- 2 Click on the last item in this menu, *Reset All/Debug*.
- 3 Click on *Reset to Factory Settings*.
- 4 Click on *Yes* and the program will automatically restart with the original factory settings. You are also given the option to go through a setup procedure that will work you step by step through all of the common plotter setting by clicking on *Yes*.

Reassign a mark as a waypoint.

- 1 Click on *Marks* in the plotter menu bar to call the mark menu.
- 2 Click on *Select New Waypoint*.
- 3 Click on *Yes* and find the mark you want to assign as a waypoint and click on the first column.
- 4 Click on *Yes* again to confirm your choice.

What you want:

Reset waypoint origin.

What you do:

- 1 Click on *Option* in the plotter menu bar.
- 2 Click on *Routes/Waypoint* to call the Routes/Waypoint window.
- 3 Click on *Reset Origin* button. The plotter screen will be redrawn with the new waypoint displayed.

Retrieve backup data.

- 1 Click on *Backup* in the plotter menu bar to call the *Backup* dialog box.
- 2 Click on the line in this box that has the data you want to retrieve. If the data is on a memory stick, click the *Change backup drive* button until you get the same drive letter showing as the memory stick.
- 3 Click on the *Retrieve* button. **Warning:** do not use this function for daily saving of data as it only copies from disk to disk, use the *Data* menu to save daily marks and tracks as all data on the program will be erased in favor of the new data from the memory stick!

Save BigTD files

- 1 Call up the TD calibration window by pressing **Ctrl-A**, then click the *Set Grid* button.
- 2 Select the BIGTD# you want to save by clicking the down-arrow located next to the BigTD# in the lower right of the window and click on the BigTD file you want.
- 3 Click the *Advanced* button.
- 4 Click the *Save Current BigTD* button.
If you are using a memory stick, then be sure to place the memory stick in before starting WindPlot then change to that drive letter before doing step 4.

Save marks.

- 1 Click on *Marks* in the plotter menu bar to call the Marks menu.
- 2 Click on *Save* in this menu. The *Disk Data Manager* dialog box will appear.
- 3 Click on the *OK* button to save any marks in RAM memory to disk.

Save the marks located in a specific geographic area to a removable disk like a memory stick.

- 1 First, define the area containing the marks you want to save. Do this by first placing a mark in the northwest (or upper-left) of the area. The place another in the southeast (or lower-right) of the area. Give these marks a special description (such as Bnd 1 and Bnd 2) so that they will be easy to find.
- 2 Call the *Mark Search & Edit* list by clicking on *Marks* in the plotter menu bar and then clicking on *Search and Edit*.
- 3 Click on *Saving* on the right of the menu bar then click on *Save by marking an area to G* then click on *Ok*. (the G here should be the same letter as the drive you are saving to, click *Change SAVE TO drive* if you need to change the G to something else before proceeding.
- 4 Use the mark search to find the mark in the northwest corner of the area and click its number in the first column . Click the *OK* button.

What you want:

Save the marks located in a specific geographic area to a removable disk like a memory stick (cont.).

Save track

Search for Raster charts

Search for marks by color.

Search for marks by symbol.

Search for marks by Range.

What you do:

Repeat this step for the mark in the southeast corner of the area.

- 5 Place a floppy in the drive and click on *Yes*. The program will tell you how many marks you will save.
- 6 Click on *OK* to save them.

- 1 Click on *Tracks* in the plotter menu bar to call the Tracks menu.
- 2 Click on *Current* in this menu to call a sub-menu.
- 3 Click on *Save* to save your current track to the hard drive.

When you list charts from a CD, a *Search* button will appear above *Update* button in the Raster charts menu. Click this button to turn a text box above this button on and off. Type in anything while the box appears and the chart list will search for a chart number or description that matches it

- 1 Click on *Marks* from the plotter menu bar to call the marks menu.
- 2 Click on *Search & Edit* in this menu to call the list of marks.
- 3 Click on *Extended Search* in the menu bar at the top of your screen to call the *Extended Search* dialog box.
- 4 Click on the *By Color & Symbol*.
- 5 Click on the desired color in this box.
- 6 Click on the *OK* button and only the marks with the chosen color will be listed.

Both search by color and by symbol are removed if the cancel button is clicked instead of *Ok*.

- 1 Click on *Marks* from the plotter menu bar to call the marks menu.
- 2 Click on *Search & Edit* in this menu to call the list of marks.
- 3 Click on the *By Color & Symbol*.
- 4 Click on the mark symbol name in this list. This will call the *Select New Mark* dialog box.
- 5 Click on any symbol in this list.
- 6 Click on *OK* in this box and the list will show only the marks with the chosen symbol activated.

Both search by color and by symbol are removed if the cancel button is clicked instead of *Ok*.

- 1 Click on *Marks* from the plotter menu bar to call the marks menu.
- 2 Click on *Search & Edit* in this menu to call the list of marks.
- 3 Click on *Extended Search* in the *Mark Search* menu bar.
- 4 Click on *By range* in the sub-menu that appears and enter the range in nautical miles. Then press **Enter** or click on *OK*. Only the marks within this range will appear in the mark list. This will remain until it is either changed or the program is terminated.

What you want:

Search for marks by text.

Search for track.

See files on disk.

Select brightness of raster chart (this does nothing for vector charts).

Select color limit for tracks.

Select track(s) to be shown on screen.

Select COM port.

What you do:

See *Find a mark* on page 289

- 1 Click on *Tracks* in the plotter menu bar to call the Tracks menu.
- 2 Click on *Search & Edit* in this menu to call the *Track Search List*.
- 3 Set up your search parameters by clicking on the appropriate boxes or circles at the top of this list. For example, clicking on *Color* in the *Search only* box will call a dialog box that allows you to select a color, then the search will be confined to tracks with only that color.
- 4 Use the keyboard to type a word or two that you associate with the track you want to find.
- 5 Search is automatically launched, just wait for the hourglass to disappear.

- 1 Click on *Data* in the plotter menu bar to call the Data menu.
- 2 Click on *About* in this menu to call the *About P-Sea WindPlot Data Files* dialog box.
- 3 This dialog box lists the files on the hard drive and can provide access to floppy drives as well.

- 1 Make sure the chart buttons are on the plotter screen (use the raster control menu to turn them on if they are not).
- 2 Wave the mouse arrow over the buttons in the bottom left.
- 3 Drag the scroll bar to adjust the brightness and move the mouse arrow off of the shader box and the screen will redraw.

- 1 Click on *Tracks* in the plotter menu bar to call the track menu.
- 2 Click on *Current* and select *Color...* Then click *Multi-Color mode* button if the multi-color window doesn't appear.
- 3 To select the color limit, click in the white area of the *Upper limit* box at the top of the dialog box, next type in the desired limit.
- 4 Click in the *Lower limit* box at the bottom and type in the minimum value for the track color. The numbers next to each color indicate their values.
- 5 Click on *OK* button

See *Change track display status* on page 283

- 1 Click on *Adjustments* in the plotter menu bar to call the Adjustments menu.
- 2 Click on the third line, *Chg COM Ports/Time* to call the *Adjust COM Port* window.
- 3 The program can handle most all COM situations without intervention but if you need to, click on one of the RED labels above the data view box and select the COM port you need. Data will

What you want:	What you do:
Select COM port (cont.)	appear when it is set properly. 4 Click on the <i>OK</i> button to activate your choice.
Select heading indicator.	1 Click on <i>Window</i> in the plotter menu bar to call the Window menu. 2 Click on <i>Heading/PP Indicator</i> in this menu.. 3 Click the <i>Hdg. Line</i> button. 4 Click the arrow buttons to set the width and length you desire.
Select raster chart.	1 Click on <i>Window</i> in the plotter menu bar to call the Window menu. 2 Click on <i>Charts/Cartography</i> . 3 Click on <i>Raster</i> to call the raster control panel. 4 Click on the <i>Raster Type</i> button for the type of raster chart you want to display and set up the drive and directory. 5 Click on the <i>Exit</i> button.
Select track color.	See <i>Adjust track color pallet</i> on page 276.
Select track.	See <i>Find a track</i> on page 290
Select TD's to display.	1 Click on the Present Position readout at the top of the plotter screen. 2 Click on <i>No</i> when it ask if you want dead reckoning and the present position will alternate between TD's and Lat/Long.
Set A-B alarm using the Button bar.	1 Press Esc to make sure that the cursor is off. If the button bar is not showing, click on <i>Window</i> in the plotter menu bar. 2 Click on the Alarm Button that looks like a speaker horn on the WindPlot button bar to call the <i>Pick Alarm Mode</i> button bar. 4 Click on the A-B alarm button to call the <i>A-B line alarm end setting</i> dialog box. 5 Use the scroll bar to adjust the distance from the end that the alarm will sound. (Set the distance to 0 to turn the alarm off.) 6 Click on the <i>OK</i> button to confirm your setting.
Set anchor alarm.	1 Press Esc to make sure that the cursor is off and then click on <i>Window</i> in the plotter menu bar, 2 Click on <i>Button Bar</i> and turn on the button bar if it is not showing. 3 Click on the Alarm Button to call the <i>Pick Alarm Mode</i> button bar. 4 Click on the Anchor watch button to call the <i>Anchor watch setting</i> dialog box. 5 Use the scroll bar to set the distance the boat can move before the alarm goes off. (Set the distance to 0 to turn the alarm off.) 6 Click on the <i>OK</i> button to confirm your setting.
Set color palette temperature limits.	Tracks can be set to change color according to the water temperature if a temperature gauge to be attached to the plotter. See <i>Select color limit for</i>

What you want:

What you do:

tracks on page 299.

Computer Time

- 1 Click on *Adjustments* in the plotter menu bar.
- 2 Click on *Chg COM ports/Time*.
- 3 Click the *Set Time* button located near the *Exit* button.
- 4 If time is not available from your GPS then enter the current time following the same format that appears highlighted in the box and click on *OK*.
If GPS time is available then:
- 5 Enter a **G** to tell the computer to use the GPS time.
- 6 Enter in the number of hours to add or subtract to get the local time.

Set crab watch.

- 1 Click on *Options* in the plotter menu bar to call the Options menu.
- 2 Click on *Timed Function* then select *Watch alarms*
- 3 Select the type of watch you want and enter the corresponding #.

Set Cross-Track alarm

- 1 Click on *Options* in the plotter menu bar to call the Options menu.
 - 2 Click on *Alarms* then on *Cross Track Error*.
 - 3 Set the scroll bar to the value you want and click on *OK*.
- Note:** clicking the bottom of the XTE box can also set this.

Set cursor-flashing rate.

- 1 Click on *Windows ' Heading/PP indicator* in the plotter menu bar.
- 2 Click on *Boat as Flashing dot* option.
- 3 Move the scroll bar to adjust the flash rate.
- 4 Click the *Exit* button to return to the program.

Set Dead Reckoning.

See *Activate Dead Reckoning* for practice on page 270.

Set Dual Plot Mode
(removed from new ver. since loran shut down. Can us "Old COM driver if want to use it.)

- 1 Make sure you have a Loran outputting \$LCGLL and a GPS outputting \$GPGGA connected to the plotter.
- 2 Click on *Adjustments ' Change COM port*.
- 3 Click on the *Dual Plot* check box if it is not checked.

Set the GRI and/or TD slaves for a calibration point.

See *Changing the GRI and/or TD slaves for a calibration point* on page 277.

Set heading indicator size.

- 1 Click on *Windows ' Heading/PP indicator* in the plotter menu bar.
- 2 Click on *Select a boat icon* option.
- 3 Click the up/down arrow to adjust the size.
- 4 Click the *Exit* button to return to the program.

Set interval timer

- 1 Click on *Options* in the WindPlot menu bar and select *Timed Function*
- 2 Select *Interval Timer*.
- 3 You have the option to enter it in days, hours, minutes or seconds.

What you want:

Set interval timer (cont)

Set magnetic variation on bearings.

Set magnetic variation for heading indicator.

Set magnetic variation of the vessel's cursor line.

Set mark link line width.

Set mark size.

Set mark proximity alarm.

What you do:

Just follow the instructions given in the box that appears after you selected 4.

- 1 Click on *Adjustments* in the plotter menu bar to call the Adjustments menu.
- 2 Click on *Magnetic Variation* to call a sub-menu.
- 3 Click on *All Calculated Bearings* scroll bar to make your adjustments.
- 4 You can watch the changes to the plotter screen as you move the scroll bar..
- 5 Click on the *OK* bar to confirm your setting.

- 1 Click on *Adjustments* in the plotter menu bar to call the Adjustments menu.
- 2 Click on *Magnetic Variation* to call a sub-menu.
- 3 Click on *Heading Display* scroll bar to make your adjustments.
- 4 As you use the scroll bar to adjust the value of the variation you should see the readout change at the same time
- 5 Click on the *OK* bar to confirm your setting.

- 1 Click on *Adjustments* in the plotter menu bar.
- 2 Click on *Magnetic Variation* to call a sub-menu.
- 3 Click on *Ship Heading Line* scroll bar to make your adjustments.
- 4 As you use the scroll bar to adjust the value of the variation that is represented by the line below the scroll bar.
- 5 Click on the *OK* bar to confirm your setting.

- 1 Click on *Marks* on the plotter menu bar to call the Marks menu.
- 2 Click on *Linking...* to call a sub-menu.
- 3 Click on *Link Width* to call the Link Width dialog box.
- 4 Use the vertical scroll bar to adjust the line width. (*Note: the line is dashed only on a setting of one.*)
- 5 Click on the *OK* button to confirm your setting.

- 1 Click on *Marks* on the plotter menu bar to call the Marks menu.
- 2 Click on *Edit Screen* to call a sub-menu.
- 3 Click on *Size* in this sub-menu to call up a dialog box.
- 4 Enter in a number from 1 to 10.

- 1 If the Button Bar is not showing, press **Esc**, next click on *Window* in the plotter menu bar, and then click on *Button Bar* to activate it.
- 2 Click on the **Alarm Button** to switch to the *Pick Alarm Mode* button bar.
- 3 Click on the **Mark proximity** button to call the *Marks proximity alarm setting* dialog box. (*Note: the mark must have an R&B flag on to activate the alarm.*)

What you want:

Set mark proximity alarm
(cont)

Set near land alarm.

Set off-color alarm.

Set on-color alarm.

Set ship's position.

Set track color from screen.

What you do:

- 4 Use the scroll bar to set the distance the boat can come to the mark before the alarm goes off.
- 5 Click on the *OK* button to confirm your setting.

- 1 Press **Esc** to make sure that the cursor is off. If the button bar is not showing, click on *Window* in the plotter menu bar, next click on the *Button Bar* and then *On/Off* to activate it.
- 2 Click on the **Alarm Button** to switch to the *Pick Alarm Mode* button bar.
- 3 Click on the **Near land alarm** button to call the *Nearest land alarm setting* dialog box.
- 4 Use the scroll bar to set the distance between the boat and land at which the alarm goes off. (*Note: this alarm can also be set to go off when the distance to land becomes greater than the set value.*)
- 5 Click on the *OK* button to confirm your setting.

- 1 Press **Esc** to make sure that the cursor is off. If the button bar is not showing, click on *Window* in the plotter menu bar, next click on the *Button Bar* and then *On/Off* to activate it.
- 2 Click on the **Alarm Button** to switch to the *Pick Alarm Mode* button bar.
- 3 Click on the **Off of color alarm** button to call the *Alarm when PP goes off of* dialog box.
- 4 Click on the color you want to activate the alarm when the vessel leaves it.
- 5 Click on the *OK* button to confirm your setting.

Note: Click on Turn Off to turn off alarm.

- 1 If the Button Bar is not showing, press the **Esc** button then click on *Window* in the plotter menu bar and then click on *Button Bar* to turn it on.
- 2 Click on the **Alarm Button** to switch to the *Pick Alarm Mode* button bar.
- 3 Click on the **On-to-color alarm** button to call the *Alarm when PP goes on to* dialog box.
- 4 Click on the color you want to stay off.
- 5 Click on the *OK* button to confirm your setting.

Note: Click on Turn Off to turn off alarm.


See *Activate Dead Reckoning* numbers 4 through 8 on page 270.

- 1 Change range if necessary so that the track you want to change is on screen.
- 2 Click on *Tracks* in the plotter menu bar to call the Track menu.
- 3 Click on *Previous* to call a sub-menu.
- 4 Click on *Edit* to call up another sub-menu.

What you want:

Set track color from screen (cont)

What you do:

- 5 Click on *Color* to call the color change icon. 
- 6 Place this change icon over the track you want to change and click the mouse button to call the *Pick Track Color* dialog box.
- 7 Click on the new color.
- 8 Click on the *OK* button.
- 9 Click on the *Stop Changes* button in the upper left of the screen.

Set track to multiple colors manually.

- 1 Any time during the recording of a track click on *Tracks*, then on *Current*, then on *Colors*, and then on *Multiple* to call the *Multiple Color Track Limits* dialog box.
- 2 Make sure you are on Manual mode by clicking the *New Mode* button and click the *Manual* dot.
- 3 Now click on the new color from the rainbow box of colors.
- 4 Click *OK* to set new color.

Set track duration.

- 1 Click on *Tracks* in the plotter menu bar to call the Tracks menu.
- 2 Click on *Current* to call a sub-menu.
- 3 Click on *Duration* in that sub-menu to call the *Present Track Duration* dialog box.
- 4 Click on the desired duration.
- 5 Click on the *OK* button to confirm your setting.

Set waypoint arrival alarm.

- 1 Click on *Options* in the plotter menu bar to call the Options menu.
 - 2 Click on *Alarms* in this menu to call a sub-menu.
 - 3 Click on *Waypoint* to call up another sub-menu.
 - 4 Click on *Less Than* or click on *More Than* (depending on whether you want the alarm to go off when you are less than or more than a specified distance from the waypoint), to call the *Waypoint* dialog box.
 - 5 Click on one end of the scroll bar to change the value or use the keyboard to type in the alarm distance.
- Note:** Setting the distance to 0 will turn the alarm off.
- 6 Click on the *OK* button to confirm your setting.

Show all tracks.

- 1 Click on *Window* in the plotter menu bar to call the Window menu.
- 2 Click on *Tracks* in this menu to call the Tracks sub-menu.
- 3 Click on *Show All* to toggle on/off display of all tracks.

Show mark link lines.

- 1 Click on *Window* in the plotter menu bar to call the Window menu.
- 2 Click on *Marks* in this menu to call the Marks Sub-menu.
- 3 Click on *Linking...* then on *Show Link Lines* to toggle on/off displaying these lines.

Show mark name to the left of mark.

1. Click on *Window* in the plotter menu bar to call Window menu.
- 2 Click on *Marks* to call the Marks sub-menu.

What you want:	What you do:
Set track color from screen (cont)	3 Click on <i>Names on Left</i> to toggle the position of the name of the mark to the left (when checked) or the mark symbol (or right side when <i>Names on Left</i> not checked.)
Show present position TD's.	<ol style="list-style-type: none"> 1 Click on <i>Adjustments</i> in the plotter menu bar to call the Adjustments menu. 2 Click on <i>Show PP in TD's</i> in this menu to call the <i>Show Position in...</i> dialog box. 3 If your NAV device does not output TD's the second line will be grayed and inaccessible. Click the third line, <i>Display PP in TD's from WindPlot</i>. TD's are now being generated from the Lat/Long coming from your NAV device.
Show track names on screen.	<ol style="list-style-type: none"> 1 Click on <i>Tracks</i> in the plotter menu bar to call the tracks menu. 2 Click on <i>Previous</i> in this menu to call a sub-menu. 3 Click on <i>Names On</i> in this sub-menu to toggle on/off the display of track names. A check mark indicates that the name will be displayed.
Sort marks .	<ol style="list-style-type: none"> 1 Click on <i>Marks</i> in the plotter menu bar & select <i>Marks Search & Edit Menu</i> 2 Click the <i>Sort</i> button located in the lower-right.
Start P-Sea WindPlot.	<ol style="list-style-type: none"> 1 Double click on the P-Sea WindPlot icon. 2 A dialog box will appear on your screen asking you to enter your security code. Use the number keys along the top of your keyboard to type your security code. (You may use the backspace key to delete any mistakes.) 3 Then press Enter and the dialog box should disappear. If you entered the wrong number, another dialog box will appear and ask if you want to try again. Click on <i>Yes</i>, correct the number and press Enter. 4 Wait for the program to finish loading.
Switching BIGTD files	<ol style="list-style-type: none"> 1 Call up the TD calibration window by pressing Ctrl-A, then click the <i>Set Grid</i> button. 2 Click the down arrow at the bottom-right of the TD menu window and select one of the BIGTD# files.
Switching chart types	<p>(Use this when you have many types of charts loaded.)</p> <ol style="list-style-type: none"> 1 Select menu path: <i>Window ' Charts/ Cartography ' Raster</i>. 2 Click the <i>Auto Find</i> button in the lower right of the Rast. menu. 3 A list will appear showing all chart types the computer can find. Select the number for the one you want and enter it. The computer will automatically switch to it.

What you want:

Start new track.

What you do:

- 1 Click on *Tracks* in the plotter menu bar to call the Tracks menu.
- 2 Click on *Current* to call a sub-menu.
- 3 Click on *Start New* to call a dialog box that asks if you want to save the present track.
- 4 Click on *Yes* or on *No* in this box accordingly and a new track will be started.

Toggle TD pairs

- 1 Set up two TD GRI/Slaves using the BIGTD and BIGTD1 files in the Grid Setup menu.
- 2 Then press the “T” key when you want to change between the BIGTD and BIDTD1 files.(Other files can be set using the *Advanced* button)

Turn A-B tack line on/off.

- 1 Click on *Window* in the plotter menu bar to call the Window menu.
- 2 Click on *A-B Tack line on* to toggle this feature on/off.

Turn Analogue Compass On/Off.

- 1 Click on *Options* and then on *Analogue Compass*.
- Note:** Click the four-arrow button for FULL NAV MODE.

Turn anchor alarm on/off.

- 1 Click on *Options* menu of WindPlot and select *Alarms*.
- 2 Click on *Anchor watch* to call the Anchor watch setting dialog box.
- 4 Use the scroll bar to set the distance the boat can move before the alarm goes off. (*Note: setting the distance to 0 turns the alarm off.*)
- 5 Click on the *OK* button to confirm your setting.

Turn boat icon on.

- 1 Click on *Window* in the plotter menu bar to call the Window menu.
- 2 Click on *Heading /PP indicator* to call the Icon selection window.
- 3 Click on *Normal Boat Icon* option to turn this feature on.

Turn chart(s) on/off.

- 1 Click on *Window* from the plotter menu bar to call the Window menu.
- 2 Click on *Charts/Cartography* that is the fourth item in this menu to call a sub-menu.
- 3 Click on *Vector* or *Raster* depending on which type of chart you are turning on. For vector, click on setup then click either the *Turn on P-Sea* button. For Raster, click on one of the three buttons in the lower right, *BSB/NDI*, *P-Sea Soft.* or *MapTech* to turn on those charts.

Or

- 1 Click on *Window* from the plotter menu bar to call the Window menu.
- 2 Click on *Charts/Cartography* that is the fourth item in this menu to call a sub-menu.
- 3 Click the *Chart Finder* button and select the number for the choice you want.

What you want:	What you do:
Turn cursor on/off.	<ol style="list-style-type: none"> 1 Click on the cursor button in the upper left of your screen to toggle the cursor on/off. <p>Note: With the cursor above off, press and hold left mouse for instant cursor</p>
Turn the date & time on/off in the mark description.	<ol style="list-style-type: none"> 1 Click on <i>Marks</i> in the plotter menu bar and select <i>Search & Edit..</i> 2 Click on <i>Display Options</i> in the mark list windows menu bar. 3 Click on <i>Add Date & Time</i> to toggle the addition of the date and time to the marks description on/off.
Turn the date and time in the plotter heading bar on/off.	<ol style="list-style-type: none"> 1 Click on <i>Window</i> in the plotter menu bar to call the Window menu. 2 Click on <i>Date & Time</i> to toggle this feature on/off.
Turn Dead Reckoning on/off.	<ol style="list-style-type: none"> 1 Click on <i>Options</i> in the Menu Bar. 2 Click on <i>Dead Reckoning</i> to call the <i>Dead Reckoning</i> dialog box. 3 Use the scroll boxes to set speed and heading. 4 Click on the <i>OK</i> button to activate it or click on the <i>Turn off</i> button to deactivate it.
Turn depth contours on/off (P-Sea vector charts only.)	<ol style="list-style-type: none"> 1 Click on <i>Window</i> in the plotter menu bar to call the Window menu. 2 Click on <i>Charts/Cartography</i>, then on <i>Vector</i> to call a sub-menu. 3 Click the <i>Setup</i> button. 4 Click on <i>Depth Contours On</i> to toggle depth contours on/off.
Turn near land calculator On or Off	<ol style="list-style-type: none"> 1 Press Ctrl-V to call the raster menu. 2 Click the <i>Setup</i> button. 3 Click the <i>Near Land Range on</i> option. <p>If you have no P-Sea vector charts then make sure the <i>Reference to USA big map</i> option is checked as well.</p>
Turn land color on/off (P-Sea Vector charts only.)	<ol style="list-style-type: none"> 1 Click on <i>Window</i> in the plotter menu bar. 2 Click on <i>Charts/Cartography</i> in this menu. 3 Click on <i>Vector</i>. 4 Click the <i>Setup</i> button. 5 Click on <i>Land Color On</i> to toggle on/off land coloring.
Turn Lat./Long. grid lines on/off.	<ol style="list-style-type: none"> 1 Click on <i>Window</i> in the plotter menu bar. 2 Click on <i>L/L Grids On</i> to toggle the grid lines on/off.
Turn Lat./Long. markers on/off.	<ol style="list-style-type: none"> 1 Click on <i>Window</i> in the plotter menu bar. 2 Click on <i>L/L Markers On</i> to toggle the markers on/off.
Turn (all) marks on/off.	<ol style="list-style-type: none"> 1 Click on <i>Marks</i> in the plotter menu bar and select <i>Search & Edit..</i> 2 Click on <i>Display Options</i> in the Mark list. 3 Click on <i>Mark On</i> to toggle the mark on/off.

What you want:

Turn (individual) mark name on/off.

What you do:

- 1 Click on *Marks* in the plotter menu.
- 2 Click on *Search & Edit* in the *Marks* menu to call the *Mark* list.
- 3 Click on the mark in the *Print* column to toggle on/off the displaying of part of the mark description that follows after the colon. (If there is no colon in the description, nothing will be printed.)

Turn marks on/off as a group.

- 1 Click on *Marks* in the plotter menu bar to call the marks menu.
- 2 Click on *Search & Edit* in the marks menu to call the marks list.
- 3 Click on one of the group of marks in the *Show* column to toggle the group of marks (that have the same description before the colon) on or off the screen as a group.

Turn mark range & bearing flag on/off.

- 1 Click on *Marks* in the plotter menu bar to call the marks menu.
- 2 Click on *Search & Edit* in the marks menu to call the marks list.
- 3 Search for the mark and click on its *R&B* column to toggle the R&B flag for that mark on/off.

Turn mark symbol on/off.

- 1 Click on *Marks* in the plotter menu bar to call the marks menu.
- 2 Click on *Search & Edit* in the marks menu to call the mark list.
- 3 Search for the mark and click on its *Show* column to toggle the appearance of the mark on the screen on/off.

Turn marks on/off with a track.

- 1 Give the track a specific name.
- 2 Click on *Window* in the plotter menu bar to call the Window menu.
- 3 Click on *Track* in the *Window* menu to call the Track sub-menu.
- 4 Click on *Link to Marks* in this sub-menu. This will add the track's name to the description of the marks made while the track is actually being made. These marks can now be displayed simultaneously by turning on or off the track.

Turn Mini Chart on/off.

- 1 Click on the Change Range box in the upper left of the screen to call the *Change Range* dialog box.
- 2 Click on the *Show mini chart box* in this dialog box to toggle the mini chart on/off. (**Note:** Mini charts are thumbnails of vector and raster charts.)

Turn off-color alarm on/off.

- 1 If the Button Bar is not showing, use the *Window* menu to turn it on.
- 2 Click on the **Alarm Button** to call the *Pick Alarm Mode* button bar.
- 3 Click on the **Off of color alarm** button to call the *Alarm when PP goes off of* dialog box.
- 4 Click on the color that will activate the alarm when the ship leaves it.
- 5 Click on the *OK* button to confirm your setting or click on *Cancel* button to turn the alarm off.

What you want:	What you do:
Turn off any NMEA input	<ol style="list-style-type: none"> 1 Click on <i>Adjustments</i> in the plotter menu bar. 2 Click on <i>Chg COM ports/Timer</i> from the menu. 3 Click on any 3-letter item in the <i>Activity</i> bar located on the right of the COM port window. The data input is off when the dot to the left of the 3 letters is gone.
Turn the on-color alarm on/off.	<ol style="list-style-type: none"> 1 If the Button Bar is not showing, use the <i>Window</i> menu to turn it on. 2 Click on the Alarm Button to call the <i>Pick Alarm Mode</i> button bar. 3 Click on the On to color alarm button to call the <i>Alarm when PP is on</i> dialog box. 4 Click on the color that will activate the alarm when the vessel touches it. 5 Click on the <i>OK</i> button to confirm your setting or click on the <i>Cancel</i> button to turn the alarm off.
Turn mark proximity alarm on/off.	<ol style="list-style-type: none"> 1 If the Button Bar is not showing, use the <i>Window</i> menu to turn it on. 2 Click on the Alarm Button to call the <i>Pick Alarm Mode</i> button bar. 3 Click on the Mark proximity button to call the <i>Marks proximity alarm setting</i> dialog box. 4 Use the scroll bar to set the distance the boat can come to the mark before the alarm goes off, or set the distance to zero to turn the alarm off. 5 Click on the <i>OK</i> button to confirm your setting.
Turn Range Rings on and off.	<ol style="list-style-type: none"> 1 Click on <i>Window</i> ' <i>Range Rings</i> in the WindPlot menu bar. 2 Enter in a range between .1 and 100 NM if turning on.
Turn sound on/off. (Sound Panel for voice and beeps).	<ol style="list-style-type: none"> 1 Click on <i>Window</i> in the plotter menu bar to call the Window menu. 2 If you have a sound card, then set the voices you want on by checking the boxes. Then set the number of minutes you want between voice calls. 3 Toggle the master switch at the bottom right to turn off or on all sounds including those without sound cards. (Windows beeps will still work)
Turn TD grid ON/OFF.	<ol style="list-style-type: none"> 1 Click on <i>Options</i> in the menu bar the on <i>Conv. TD to LL</i> to call the TD conversion box. 2 Click on <i>Set Grid</i>. 3 Click on any one of the five option buttons that are labeled <i>ON</i> to turn on or <i>TD grid lines off</i> option to turn off.
Turn Tide Forecaster On and Off.	<ol style="list-style-type: none"> 1 Click on the <i>Options</i> menu in WindPlot. 2 Click on <i>Tide Forecaster</i>.
Turn track on/off.	<ol style="list-style-type: none"> 1 Click on <i>Tracks</i> in the plotter menu bar to call the Tracks menu. 2 Click on <i>Search & Edit</i> in this menu to call the <i>Track Search List</i>. 3 Click on the track in the <i>Show</i> column to toggle this track on/off the screen.

What you want:

Turn track names on/off.

What you do:

- 1 Click on *Tracks* in the plotter menu bar to call the tracks menu.
- 2 Click on *Previous* in this menu to call a sub-menu.
- 3 Click on *Names On* in this sub-menu to toggle on/off the display of track names.

Turn waypoint on/off.

- 1 Click on *Options* in the plotter menu bar.
- 2 Click on *Routes/Waypoints* to call the Route/Waypoint window.
- 3 Click on *Waypoint On* to toggle the waypoint on/off.

Turn waypoint arrival alarm on/off.

- 1 Click on *Options* in the plotter menu bar to call the Options menu.
- 2 Click on *Alarms* in this menu to call a sub-menu.
- 3 Click on *Waypoint* to call another sub-menu.
- 4 Click on *Less Than* or *More Than* (depending on whether you want the alarm to go off when you are less or more than a specified distance from the waypoint), to call the Waypoint dialog box.
- 5 Click on one end of the scroll bar to change the value or use the keyboard to type in the alarm distance. To turn the alarm off, set the alarm range to zero or click the *Off* button.
- 6 Click on the *OK* button to confirm your setting.

Un-erase marks.

- 1 Click on *Marks* in the plotter menu bar to call the Marks menu.
- 2 Click on *Edit* in this menu to call a sub-menu.
- 3 Click on *Un-erase* to call the pencil icon.
- 4 Place this pencil over the erased mark, which appears black when this function is used, then click the mouse button.
- 5 Click *Stop Changes* button when finished.

Un-erase track.

- 1 Click on *Tracks* in the plotter menu bar to call the track menu.
- 2 Click on *Previous* to call a sub-menu.
- 3 Click on *Edit* in this menu to call another sub-menu.
- 4 Click on *Un-erase* in this sub-menu to call the pencil icon and the erased tracks in black.
- 5 Place the pencil icon over the track you want to un-erase and click the mouse button. A dialog box will appear with the name of the previously erased track in question.
- 6 Delete this *erased* name and type in a new or the same name for the track. (Enter a new track description if you like.)
- 7 Press **Enter**.
- 8 Click the **OK** button to save the changes.
- 9 Do another track or click on the *Stop Changes* when finished.

Unlink marks.

- 1 Click on *Marks* in the plotter menu bar to call the Marks menu.
- 2 Click on *Linking* to call a sub-menu.
- 3 Click on *Link marks* in this sub-menu to call a mouse icon in the shape of a hand.
- 4 Use the mouse to place this icon over the mark you want to unlink

What you want:

Unlink marks (cont)

What you do:

and click the mouse button. A dialog box will appear asking if you want to remove a link line?

- 5 Click on *Yes* and another dialog box will appear asking you to select the line to erase. Each link line to the mark will change to a different color.
- 6 Click on the colors you don't want to remove so that the X is gone.
- 7 Click on *OK*.
- 8 Click on the *Stop Changes* button in the upper left of the screen when finished.

Unsave marks.

(Regains marks when the mark directory has been lost or damaged.)

- 1 Click on *Marks* then *Undo Save*.
- 2 If there is any marks to regain a message box will appear with the total you can regain.
- 3 Click on *Yes* to bring your marks back. This will not affect the marks you already have and you should see them back on the mark list.

Unsave Tracks.

(Regains tracks when the track directory has been lost or damaged.)

- 1 Click on *Tracks* then *Previous* and then *Unsave Tracks*.
- 2 If there is any tracks to regain a message box will appear with the total you can regain.
- 3 Click on *Yes* to bring your tracks back. This will not affect the tracks you already have and you should see them back on the track list.

Update TD hangs

- 1 Click on *Marks* in the plotter menu bar.
- 2 Click on *Search & Edit*.
- 3 Click the *Update TD's* button in the lower-left of the window.

Waypoint selection.

Method 1: from mark list

- 1 Click on *Marks*.
- 2 Click on *Select New Waypoint*.
- 3 Click on *Yes*, then use the *Mark Search & Edit* menu to find the mark you want to set as a waypoint.
- 4 Click on the mark's number in the first column.
- 5 Click on *Yes* to set the waypoint.

Method 2: from existing mark on screen

- 1 Press **F2** to turn on cursor and place it on the mark.
- 2 When the mark description appears, place the mouse pointer arrow on it and click.
- 3 Click on *Yes* to set it as a waypoint the press the **Esc** or **F2** key to turn off the cursor.

What you want:
Waypoint selection (cont)

What you do:

Method 3: from any cursor position (without a mark)

- | | |
|---|--|
| Waypoint selection (cont) | <ol style="list-style-type: none">1 Press F2 to turn on the cursor and place it where you want the waypoint to be.2 Press Shift-W.3 Press the Esc or F2 key to turn off cursor. |
| Zoom to any location with the cursor. | <ol style="list-style-type: none">1 Click on the cursor icon to activate the cursor.2 Type in the Latitude and Longitude of the position to which you want to zoom to in the cursor box.3 Press Enter and the screen will be redrawn with the center at the designated location. |
| Zoom to any location on a raster chart. | <ol style="list-style-type: none">1 Click on <i>Window</i> in the plotter menu bar to call the Window menu.2 Click on <i>Charts/Cartography</i>.3 Click on <i>Raster</i> to call the raster control panel.4 Click the proper raster button in the <i>Type of Raster</i> box so that its files appear in the list.5 Find the file on the list using the scroll bar located along the side and click on the file number in the first column. (BSB charts may need to generate a file at this point, so click on Yes.)6 In a couple of seconds, the overall chart may appear, click on any part of this chart to zoom to its location.7 Turn off the cursor when finished to return to the vessel's location. |
| Zoom to any location on a vector chart. | <ol style="list-style-type: none">1 If the mini chart box is not on, click on the Range button in the upper left of the screen to call the <i>Change Range</i> dialog box. Click on the <i>Show mini chart box</i> in this dialog box to toggle the mini chart on.2 Turn the cursor on and click anywhere in the mini chart box to zoom to that particular location.3 Turn cursor off to return to plotting mode. |
| Zoom to a landmark location using the BSB version 2 or higher CD. | <ol style="list-style-type: none">1 Click on <i>Marks</i> in the plotter menu bar to call the marks menu.2 Click on <i>Search & Edit</i> in this menu to call the mark list.3 Click on <i>Extended Search</i>.4 Click on <i>Search Reg. CD Landmarks</i>.5 Use the search and click on a landmark to zoom to it. <p>This requires the Version 2 CD be setup and running in WindPlot. Version 2 CD's available in Late 1997.</p> |
| Zoom to a mark. | <ol style="list-style-type: none">1 Click on <i>Marks</i> in the plotter menu bar to call the marks menu.2 Click on <i>Search & Edit</i> in this menu to call the mark list.3 Double click in the first column on the number of the mark you want to go to and the screen will be redrawn with the center at the designated mark. |

What you want:

Zoom to a track.

What you do:

- 1 Click on *Tracks* in the plotter menu bar to call Tracks menu.
- 2 Click on *Search & Edit* in this menu to call the list of tracks.
- 3 Double-click on the track number in the first column. The program will jump to that track on the plotter screen.

Zoom using world vector chart.

- 1 Press **F4** to or click the range button to call the range box.
- 2 enter any range greater than 500 and less than 5000.
- 3 Press **F2** or click the cursor button to turn on the cursor.
- 4 Drag the cursor to where you want to zoom into.
- 5 Press **F4** and enter in a range of around 20 miles.

Note: This requires that you have the P-Sea world chart loaded and turned on.

Zoom using the P-Sea world chart

- 1 Turn on *Raster Buttons* if not already on from the raster menu.
- 2 Move mouse along left side and click green world icon on the Raster button bar.
- 3 Place the mouse arrow anywhere on the world that appears and click to zoom there.

Write in your own short cuts.

Chapter

7

Understanding the Data Structure

In this chapter we will try to explain the complex data structure of P-Sea WindPlot and the computer.

Data is considered to be your track and mark information and how they display mainly. Charts, depths are also data but it is not so important for you to understand how they work because the computer takes care of it. Once you have them (charts) installed they do not change. Mark and track data changes all of the time so, you, the operator must keep track of how it is stored. To help, you need to get a good idea of how it works. The following pages are intended to do just that.

Video Memory

Video memory is usually set between 1 to 256 mega bytes of RAM. The more video RAM you have the more textures in 3D you can display. The program can work with the minimum of 16 colors it needs at

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least 65K colors to show raster charts properly. Even better is 64 thousand colors and so on. 16 colors takes .512 megs, 256 to 64 thousand colors takes 1 meg. More video memory will also usually mean faster display. To use the bottom builder for the 3D option in WindPlot the video card must be able to produce 32 bit colors.

Hard Drive

The hard drive is a very fast magnetic storage device. It is usually faster than a flash drive or memory stick. The main difference between the two is speed and the fact that the flash drive is removable. The hard drive can also store vast amounts of information and data. The hard drive does not require power to keep the information on it like the computer's RAM memory does (data must be saved to a hard drive or memory stick before power is removed or all data in RAM is lost). All data is still there even when power is turned off. Disk drives are usually given a letter to represent them. **C, D or higher** is usually the letter for a hard drive.

Floppy Drive or Zip drives (obsolete)

The old floppy drives were slow, magnetic permanent type of storage. Its primary purpose is to install new information to the hard disk from another source. Disk drives are usually given a letter to represent them. **A or B** is usually the letter for a floppy drive.

The CD or DVD drives

The **Compact Disk** is a laser powered storage device. Some CD drives can only read the data from the CD disk. Some can both read and write. The read/write CD or DVD is becoming more popular because the cost has come down and it is not as vulnerable as a magnetic hard drive. Disk drives are usually given a letter to represent them. **D or E** is usually the letter for a CD drive.

USB Memory Stick or Jump Drives

USB memory sticks can be used in place of floppy disks and with much greater efficiency. They can hold more marks and tracks and with greater speed. Just remember to install the memory before starting WindPlot and always be sure to use the "Eject Hardware" from the sys tray when removing the memory sticks.

RAM

RAM is what the computer uses to gather the information from the other storage devices. Everything that is displayed on the monitor, typed on the keypad or coming and going to disk drives must go through the RAM. It is like a scratch pad for the brains of the computer. However unlike the disk memory, RAM needs power to work. It loses everything when power is removed from it. Therefore any information in the RAM must be put to either the hard drive or to a memory stick before the computer is turned off or it is lost forever!

Track and Marks storage in RAM

When WindPlot is first started, the program searches the disk for two data files; MARKPNTS.DAT and TRACKDIR.DAT. The mark file contains all of the information on the marks. The trackdir.dat file only contains all of the information about each track (name, description, color and so on) except for the raw point data with all of the Lat/long position information. The track point data are all stored separately in TRAK###.DAT files since each file can contain 600 to 2000 points they can get fairly large and had to be kept separate.

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The markpnts.dat file has all information about the marks. ALL of it is loaded into the computers RAM memory making it a mirror image of the disk. If any marks need to be shown on the monitor then the program displays them from the information in RAM memory. When you change or add a mark the files are no longer mirror images since the marks in RAM have been modified. To keep the changes permanent, press F9 and the RAM memory is copied OVER the ones on the disk. Then, both are back to mirror images again. If we delete marks, the mark is not actually deleted, instead the computer changes only the color of the mark to black and thus you can regain or un-erase the mark by changing its color to something other than black. If you were to use the DATA ' MARK menu to save the marks to disk and you checked the ADD TO you would end up with two copies of the marks on the disk since when ADD TO is checked, it adds the marks to the end of the file instead of putting the marks over them. You only use the ADD TO when you have a disk with different marks than the ones in RAM or another disk. Like when someone gives you a copy of there marks, then you would put the memory stick USB port and set the mark data box to GET and ADD TO your RAM. Then, you can look at the data before you change the information on your hard drive. When you feel all is Ok, call the mark data box again and this time SAVE the RAM to the hard drive (C or D drive). Also, when a mark file smaller than what is on the disk is stored over it, the file is not all whipped out. WindPlot changes the name of the mark file on disk to END showing that it is the last mark. All marks higher than the last mark saved is still there and you can use the undo save to get them back. For example, say you have 10 thousand marks on your hard disk and you accidentally erased all marks in you RAM memory. In a panic you hit the save button. This just told the computer to put no marks on disk and this would usually wipe out the file on the disk. WindPlot instead will simply change the name of the first mark to END. This tells WindPlot that this is the last mark in the file. The file however still has all of the marks in it but WindPlot thinks it doesn't. If you made a new mark it would be put in the first spot and the END would be moved up to the next mark name. Now, to get them back we just need to move the END back to the end of all the marks in the file. When you use the UNDO SAVE in the mark menu you regain all marks

Tracks are used a little differently in WindPlot than marks. It first loads all the basic information about the tracks that is contained in the TRACKDIR.DAT file. Mainly, the geographic information it needs from the file so it knows when to load the track point file. It also loads the names and color for the track list. WindPlot does not load all track point data. It only loads the track points when the track comes into view of the plotter screen. This helps to keep the memory overhead as low as possible. It would take a tremendous amount of memory and time to load 32000 tracks with 600 points each. So, at this point we will make a warning, be careful when zooming out to a large range. As you get more tracks it will take more RAM memory to display them and as you zoom out it has to load more and more track point files. If you ever get a crash while zooming out with a lot of tracks, then either get more RAM or turn off or erase some tracks. When you erase a track, WindPlot only changes the name of the track to erased and thus ignores it. The track can be un-erased at any time by changing the name of the track with the track un-erase menu. The track will be lost however when the next new track is made. So when you use the save track you are only saving the current track you are making. When you copy tracks, you must copy them from disk to disk instead of RAM to disk like marks are done because not all of the tracks are in RAM at any one time. If you have a lot of tracks, try turning the ones off that you may not need to speed things up.

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The track and mark files are usually kept in the main directory called PC-PLOTT. There are other subdirectories called "PLOTFILE.BK1" thru "PLOTFILE.BK8" that the program uses to store backup data. Separate copies of the mark and track data files stored on your hard disk are made in this subdirectory when the **BACKUP** command is used. Note that data stored in RAM memory is not backed up when this command is used, only the data stored on your hard disk. Keeping the backup files up to date provides some security for your data. If something was to happen and you lost the data in the main directory, you would be able to retrieve the data you had backed up. The backup subdirectory is dated each time you use it. There are up to eight separated backup subdirectories you can create named "PLOTFILE.BK1" through "PLOTFILE.BK8" and it is recommended that you use the oldest dated one. You should backup to a memory stick to protect your data from hard drive failure. It is best to save to a different backup each day or each time you deem that you would not want to loose what is on the main directory. These disk you can take home for save keeping should you vessel get lost some how. Do not use Backup to give your friends your data. If you do, your buddy will loose all of his marks and tracks when the computer is told to retrieve your data from your memory stick (there is a DATA menu that will allow you to add your buddies data to yours without loosing either).

P-Sea FishFinder Operation

Introduction

P-Sea FishFinder is a new revolution for traditional color depth sounders. It has no display, just a box with power, transducer and Ethernet connector. Just connect the transducer, 12 power and a IBM compatible computer to it and with a little help from some software, you have a color depth sounder/fish finder that can have just about any size display. Connect up to three displays and have full control of the FishFinder from each station. You'll have bottom characteristics display to tell what type of bottom your going over. Past history in the form of graphs that allow you to scroll back in time and locate where the sounding was done at just by a click of the mouse. The data from the P-Sea FishFinder, depth, water temperature, biomass, bottom hardness and bottom roughness can be stored in track history of the P-Sea WindPlot II program. From this, the tracks change color any one of these outputs. An alternative mode allows you to set up a XY color grid of both bottom hardness and roughness. Then when the colors are set up properly you can tell what type of bottom, mud, clay, sand or rock your going over (or have gone over in the past) just by the current or past track color.

How the FishFinder works

The basic principle behind any FishFinder or Depth Sounder as they are so often called is sound. Sound travels through water at constant speed and the FishFinder measures the time it takes for the sound to bounce off the seabed and back to the boat. The FishFinder produces a very high frequency sound from what is called a transducer. The transducer is mounted in the water facing down towards the seabed floor. The FishFinder energizes the transducer with a high voltage pulse that is measured in Watts. This produces a sound is so high in frequency we can not hear it and so narrow that nearly all of the energy is focused at the seabed. This sound wave bounces back when it hits the bottom and it is altered slightly by the type of bottom it is striking. If it is rough, the beam will tend to vary greatly from pulse to pulse, we use this to tell the roughness. If the bottom is soft, the return from what is called the second echo will be real weak. The second echo is when it returns off of the ocean surface and back again making a second trip with the same sound wave. This is used to tell the hardness of the bottom. The transducer acts as an antenna for the wave that comes back. The signal is amplified by the black box FishFinder. The return is displayed on the right-most part of the computers video display. Any signal makes the dot on the screen light up and timed to the point where the sound was received. The color of the dot depends on the strength of the sound wave the transducer picks up. Usually red or brown is the hardest and light blue to white is the lightest. When it is time for the next pulse/sound wave to come in the picture is moved to the left by one dot with and begins to paint the next column of dots.

The FishFinder produces two frequencies. The reason for this is that some objects like sea bed or fish absorb the sound waves differently at different frequencies so you may need to use one frequency for one type of fishing than the other. The 50khz, low frequency wave in this FishFinder goes deeper than the higher 200khz frequency it produces. The lower frequency is closer to normal boat noises and is a wider energy beam and thus picks up more noise when underway than the 200khz.

P-Sea FishFinder Operation

Starting the FishFinder from WindPlot

- 1) Get P-Sea WindPlot II running if it isn't already
- 2) Click on the *Options* menu
- 3) Select "*P-Sea FishFinder*"

If you get a message that ***Required file PCSOUNDER.EXE was not found***, can not start FishFinder then try reinstalling the program or it may be that your not starting it in the correct directory. If reinstalling does not help then try starting the program by clicking on *Start* then find it in the list of programs and click on it there.

If the Ethernet cable is not plugged in or the Ethernet port is disabled, you will get a message to ***"Please plug the cable in and try again"***. Look to make sure the cable is plugged in. When it is plugged in correctly you should get a green light by the Ethernet connector on the computer. Do not connect the CVB-20 directly to the Ethernet connection on the computer. It needs to go through a hub or use a cross over connector before it goes to the computer or you get this same message

Setup PC IP: If you do not have the Ethernet port setup for the correct IP then you will get a message showing what the IP is and prompt you to change it to the correct IP numbers. There are four groups of number that make up an IP address and they are separated by a period. The IP you need to set your computer to is: **192.168.0.x** where x is any number between 1 and 255 excluding 32 as that is the default for the CVB20-A. The P-Sea FishFinder IP address is 192.168.0.32 and no two IP's can be the same on any system is why you can not use 32. See the appendix for instructions on how to change your computers IP address.

If you can start the FishFinder but you find you can't get the ranges or anything then check that the Subnet Mask is set up properly on your computer. You set it in the same place as the computer's IP is setup at and it must be **255.255.255.0** for the FishFinder to work properly. If your not connected to the Internet, turn off all fire walls as they can block the signal to the CVB20A. Fire walls are usually located on the system tray in the START bar. Just right-click and choose disable. In that case you should also remove the fire walls from the Windows start up menu.

When P-Sea FishFinder is set up correctly you should get a screen with the P-Sea compass rose logo and message that says *"Please Wait"* located near the bottom and a count-down timer in grey just to the right of that. The FishFinder will start in 30 seconds or less as displayed in the count-down. The FishFinder uses this time to search for other computers to log onto that are running the FishFinder. If it

does find one then the message “*Scan IP*” located under the count-down will change to *Remote found*. When connecting multiple computers, please allow each P-Sea FishFinder program to complete the count-down before you start the next P-Sea FishFinder program. The computers can be running but do not start the programs yet until each count-down completes. When the count-down ends the FishFinder starts transmitting and the FishFinder image starts across the screen.

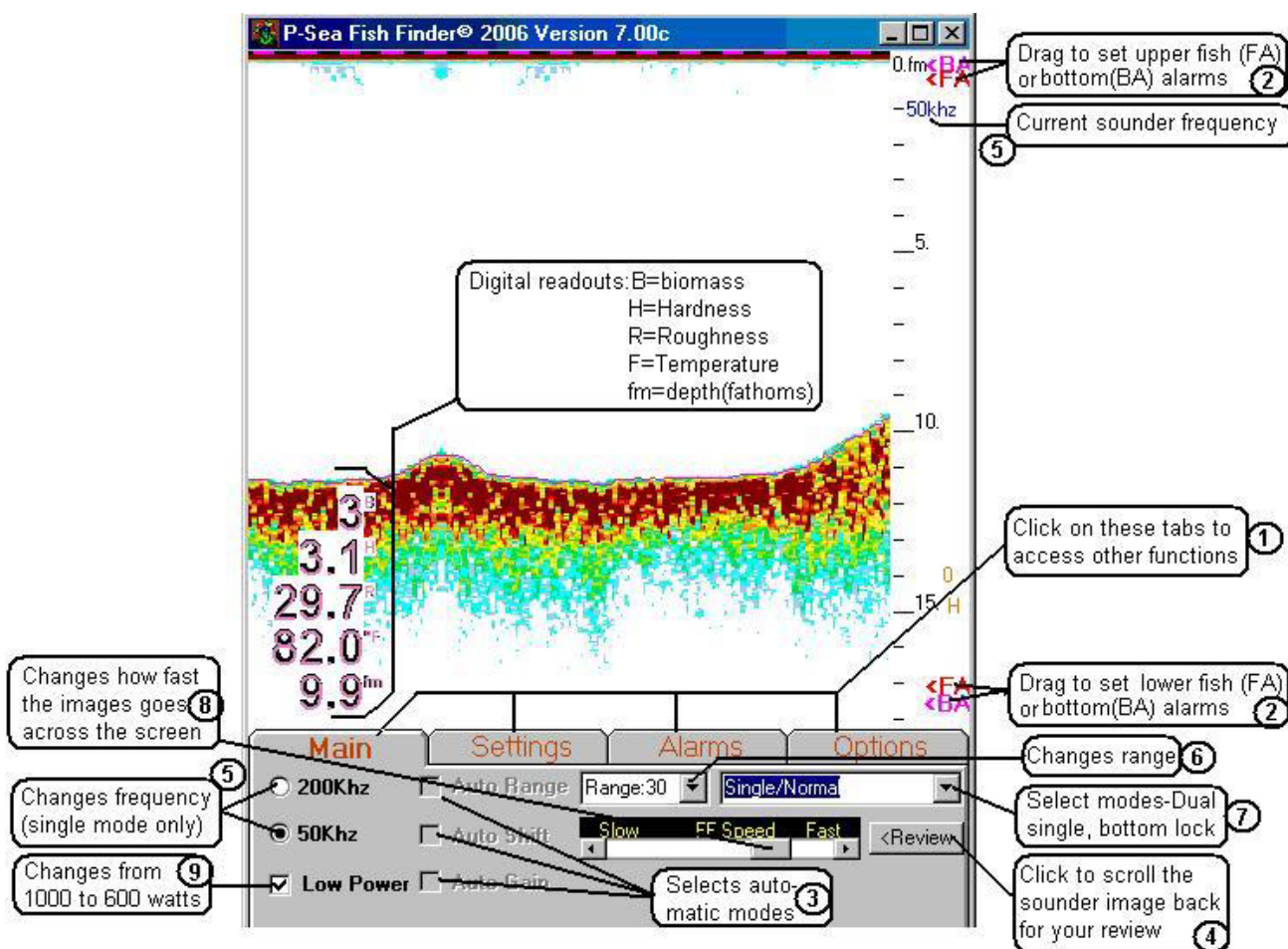
Running FishFinder recordings without hooking to CVB20A

If you have FishFinder recordings, you can run them without the computer connection to the CVB20-A. To do this, you must click on the “*PLEASE WAIT*” within 30 seconds of starting the FishFinder program. Then the recoding files will appear in a list if you have the recoding files in the “*SndRecord*” folder of the root of your computer’s C drive. Just enter the corresponding number for the file you want to play. Please not you will not be able to change any settings as it is played back exactly as it was recorded.

Using just the FishFinder program

The P-Sea FishFinder program is a self-contained program does not need P-Sea WindPlot to work. It can be made to be a self-running program but you must create an icon for it so that you can start it by itself. To do this is fairly simple, just open the local disk “C” using *My Computer* and locate the *PC-PLOTT* folder. Open this folder and find the file named “*PCSOUNDER*” and right-click on it. Select “*Send to*” and click on “*Desktop*”. This will create an icon on the desktop that you can start the P-Sea FishFinder program from. If your not using Windows XP then just click on “*Create Shortcut*” and then drag the new shortcut to the desktop.

There are 6 tab controls that are used to setup various functions of the FishFinder: ***Main***, ***Settings***, ***Alarms***, ***Options***, ***Units*** and ***Digital***. The ***Main*** control tab changes the things that are most often used like range, frequency and mode selections. ***Settings*** control tab allows you to make adjustments to things like *Gain*, *STC*, *Bottom detection thresholds*, *calibration* settings and much more. The ***Alarms*** sets up various alarms. ***Options*** allows you to turn on things like Bottom Classification, display options and white line. ***Units*** allows you to change depth, speed, temp. units along with recording setup. The last tab, ***Digital*** repeats the on screen digital on the tab itself.



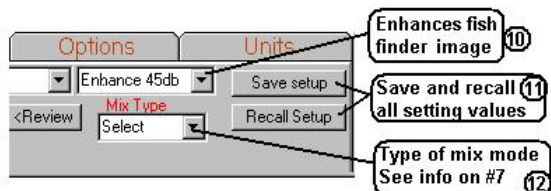
P-Sea FishFinder Screen Layout

The Main Control Tab

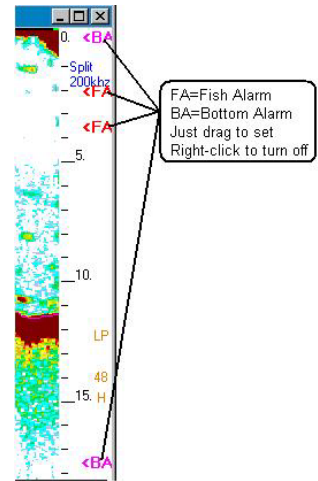
(1) The previous picture shows the basic P-Sea FishFinder screen as it appears when the program is first started. You have more options available by clicking on

Settings for changes gain, STC and other settings. Or click on the *Alarms* tab to start or cancel an alarm. Or click the *Options* tab to change the settings of other options such as Bottom Characteristics and digital readouts. The *Units* tab (not shown above) allows you to change the units of Depth, Speed and Temperature. The *Main* control panel/tab is showing above and is described next in detail.

This portion of the main tab is missing in the picture above because the picture isn't wide enough to show it. Simply drag the left side of the FishFinder to display all



- (2) **Setting Fish and Bottom alarms from the screen.** The depth and fish alarms can also be set by dragging the <FA, <BA located along the right side of the screen. As you drag them you will see a line go across the screen and a digital readout that shows where the current alarm is at. If you wish to turn them off just put your mouse arrow on the label and click the right mouse button. When the alarm is activated, message will appear in the center of the screen and the computer will beep.



When the TOP <BA control is set above the bottom, the alarm will trigger when the depth becomes shallower than the <BA is set for.

When the BOTTOM <BA control is set below the current bottom, the alarm will trigger when the depth get deeper that where the control is set at.

When setting the fish alarm you need to do both upper and lower alarm settings in order to make it work properly. It does not matter which one you drag first, just drag either the top or bottom <FA to the upper or lower depth limit then do the same with the other. The CVB20A will then start looking for fish in between the two <FA's according to how you have the fish length and fish color rejection setup in the "ALARMS" control tab. This will be explained better later when the ALARMS tab is discussed.

- (3) The *Automatic* function shown above are greyed out and not accessible as shown when the bottom characteristics is turn on as BC has it's own automatic functions that do not allow these to be set. The automatic modes should be self-explanatory.
- (4) When you click the review button it changes to a *Resume* button and the Fast/Slow slider changes to a scroll bar and the cursor on the P-Sea WindPlot II screen is turned on. Moving the scroll back rolls the depth FishFinder picture back and the cursor moves to the location where that sounding was made. The length of this history depends on how fast the screen image is moving and the amount of pixels to store. The default is 4000 pixels(soundings) but you can change this to just about any length if you like as discussed in the *Settings* tab section following this. Be careful though, changing this value too high can cause unusual operation like jerky screen or momentary freeze depending on the speed and RAM in your computer. When you increase this value, try increasing at 2000 to 4000 increments, running the FishFinder for an hour or so and see how it works. The memory resets when you hear a beep (if your computer is equipped with a internal speaker). If it works ok up to this point then it is ok to increase it some more.

As said before, when reviewing the sounder image, P-Sea WindPlot's cursor is automatically turned on, and the cursor will move on the chart to the same location where the mouse arrow is on the past sounder image. P-Sea WindPlot cursor is automatically turned of when you click the RESUME button.

- (5) When in single-frequency mode, you can change what frequency by clicking on either the 50 or 200khz option boxes. The lower frequency 50khz can penetrate deeper than 200khz because the higher frequency's energy wave is absorbed faster by the water. It usually has a wider beam as well and is more sensitive to noise from the engine or turbulence. The bottom classification option will usually work better on the 200khz but as stated before, it won't work as deep as the 50khz mode. When in dual-frequency mode the 50/200 selection does nothing except to let you know what frequency you will be on when you leave the dual-frequency mode.
- (6) This changes current P-Sea FishFinder range, Click the arrow to the right where it says range in the main control panel to change ranges. This function is disabled when the auto-range is selected or auto shift mode is selected. The drop-down selection style allows for the use of a touch screen to change ranges. The only ranges you can use is listed in this drop-down box, do not try to enter any value other than what is listed.
- (7) There are **8** different FishFinder modes that is selected by clicking on the drop-down arrow next to the range selection box. **Mode#1:** The *Single/Normal* mode displays either frequency. **Mode #2:** The *Dual 50/200khz* mode splits the FishFinder screen showing both frequencies at the same time. **Mode #3:** The *Mixed/Normal* splits the screen again but this time the left portion is a combination of both 50 and 200khz and the right is the selected frequency in normal display. **Mode #4:** The *Single Bottom Zoom* causes the bottom to be displayed and magnified by the amount set in the *Expand Rng.* box. **Mode #5:** The *Dual Bottom Zoom* causes the same as #4 but splits the screen and shows both frequencies. When in the two above zoom modes, make sure the zoom range is less than the normal range. **Mode #6:** The *Bottom Lock/Normal* mode splits the screen, with the left showing an expanded image where the seabed is locked to the bottom of the screen and the right portion is a normal FishFinder image. **Mode #7:** The *Zoom/Normal* splits the screen with a normal FishFinder image on the right and a zoomed picture on the left. This zoom is different than #4 and #5 zoom in that you select where the zoom starts at manually so you have both *Expand Rng* and *Zoom start* selection boxes. **Mode #8:** The *Bottom Lock/Normal* mode is like #6 but the sea bed is raised from the bottom of the screen just a little so you can see its shape.

When in the 3rd MIX mode is selected, you will see another selection available called *MIX TYPE*. The choices here are *COMPARE*, *SELECT* and *SUBTRACT*.



Comparison mix mode:

This mode displays the result of the comparison between HIGH and LOW frequency echoes. If those echoes are overlapped at the same depth, the resultant levels are displayed in mixed levels. If the mixed fish school is partly displayed, it suggests the possibility of a larger fish school among the small fish school.

Subtraction mix mode:

This mode displays the resultant image by subtracting the HIGH frequency echoes from those of LOW frequency. Using this method, you can discern a fish school by size. For instance, if the resultant echoes are displayed in similar levels as the HIGH frequency echoes, this result suggests

the majority of the fish species is sensitive to the HIGH frequency transmission, i.e. the detected fish school could be small fish like young sardine. If the resultant echoes are shown in different levels from the HIGH frequency transmission, it indicates the fish school is sensitive to LOW frequency, therefore a larger size of fish species.

Selection mix mode:

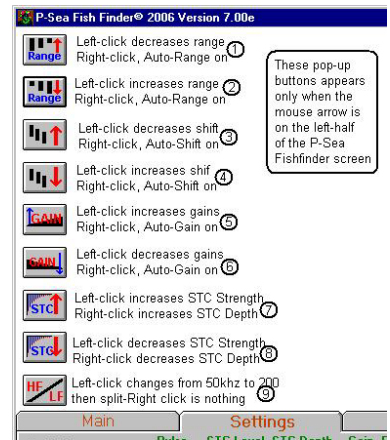
This method is similar to A mode in principle; however, the process in determining display level is different. If the HIGH frequency echo is predominant against those of LOW frequency, the resultant level is displayed in levels shown in HIGH frequency image. If the LOW frequency echoes are predominant against HIGH frequency in level presentation, no echoes will be shown. This indicates there are few schools of small fish.

- (8) At different vessel speeds the bottom will look different. The **FF Speed** slider controls how fast the FishFinder image travels across the screen. There are 9 levels that allow you to slow down the image when the vessel is going slow and speed it up when the vessel is going fast when you want a more consistent image. Also, on slower computers you may notice the video do JUMP like motion. This is because the computer isn't fast enough to keep up with the drawing of the video. If you slow the image down using this control you will get rid of the JUMPING caused by slower computers.
- (9) This controls the peak power output of the Black Box FishFinder. When checked (or low power mode) the output peak power is reduced from 1000 watts (un-checked) to 600 watts PEP. You should run low power when ever possible.
- (10) **Enhance.** This function enhances the picture presentation by changing the dynamic range of a sounder image in 5 steps, 25db, 35db, 45db, 55db and 65db. When the number is increased, the shades of level are widened causing better discrimination fish and plankton echoes. When the number is decreased, the shades of level are narrowed causing the seabed and fish echoes enhanced.
- (11) **Save/Recall Settings.** Click the *Save Settings* button to make a backup copy of ALL current settings of the P-Sea FishFinder. Should something happen that the P-Sea FishFinder isn't working like it should then you should be able to click the *Recall Settings* button to have it running just the way it was when then *Save Settings* was clicked.

- (12) **Mix Mode.** This control will only appear when the P-Sea FishFinder mode is set to *Mixed/Normal* mode. See #7 above for further discussion of this mode.

Pop-Up Buttons

The buttons shown here on the right will appear anytime you place the mouse arrow over the left-side of the FishFinder video screen. They control the most-often used FishFinder functions. They will remain there until you move the mouse arrow back away from it, then it disappears in a few seconds.

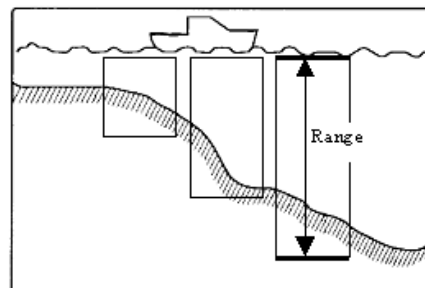


Chapter 8, P-Sea FishFinder



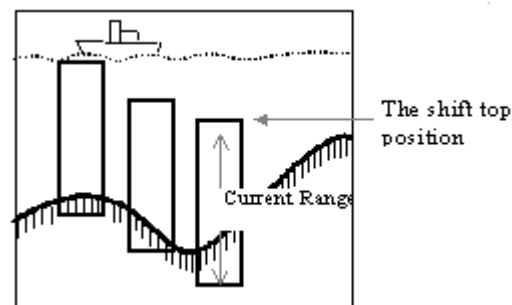
(1),(2): These two buttons control the range of the FishFinder video screen as measured from top to bottom.

Clicking the top button to decrease the range the second button to increase or go deeper. Each time you click either of these buttons a box with the current ranges is briefly displayed in the middle of the screen. Holding down on these buttons will automatically keep changing the value. Right-click on either turns the Auto-Range on. Then any left-click turns the range mode back to manual.



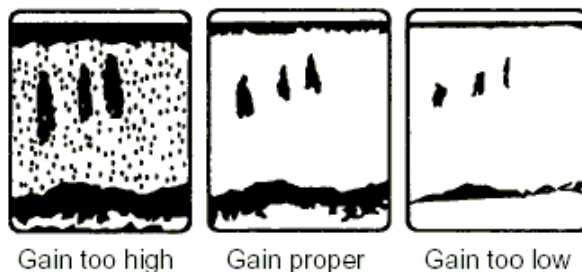
(3),(4): These two buttons controls the **shift** or starting depth of the FishFinder video screen. Clicking #3 causes the shift to decrease and clicking #4 causes the shift range to increase. Right-click to set the Auto-Shift on. In this case just left-click either #3 or #4 to go back to manual-shift operation.

Use the shift to maintain a certain size of echo and yet still be able to work at any range.



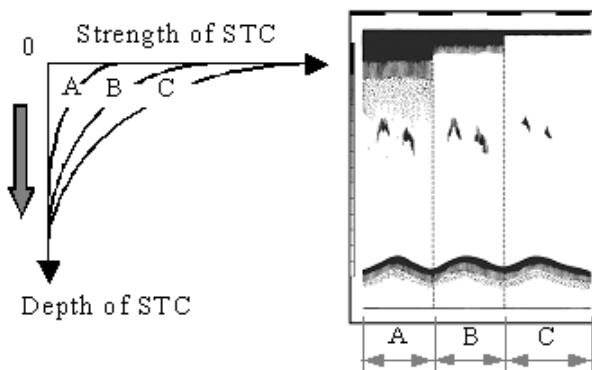
(5),(6): These two buttons control the gain or sensitivity of the FishFinder. As seen to the right here, too much gain and you get noise and too little you may miss fish.

Right-click to set the gain to automatic and left-click to place back in manual mode.



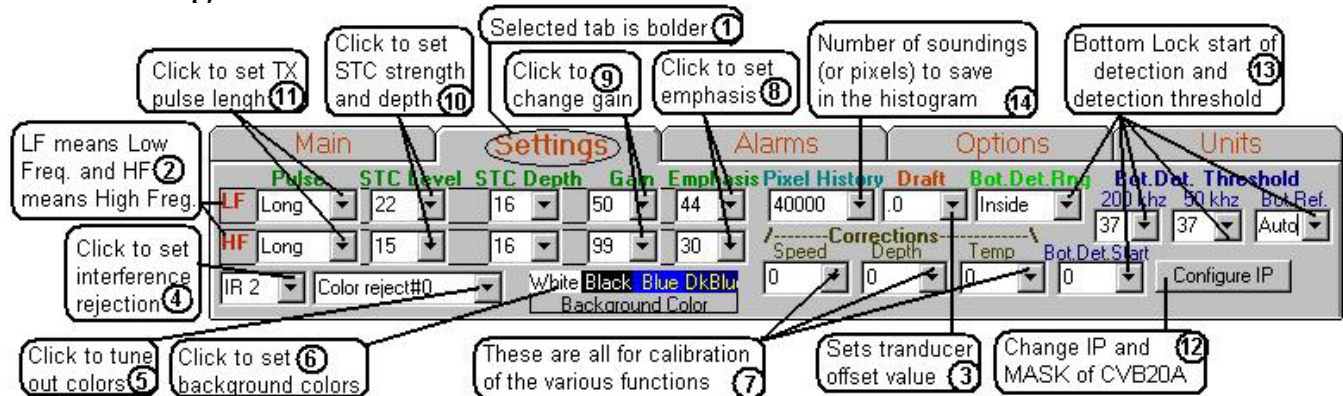
(7)(8): These two buttons control the STC or time varied gain. It is used to get rid of the clutter near the surface as shown on the right here. Sett there is too much, fish may be lost in both so **B** would t

Click the left mouse button to change the **Strength** or le change the **Depth** or length of the STC.



(9): Left-click this button to change the FishFinder modes from **LF** or low frequency to **HF** or high frequency 200khz or **Dual Frequency** modes. Clicking the button again repeats the cycle. Right clicking does nothing.

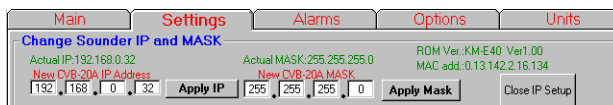
The Settings Control Tab



- (1) **Settings** tab is selected as shown above. Some not all items are shown here as there are more selections to the right. To see all selections you need to drag out the edges of the P-Sea FishFinder so that it widens until you see all of the options available.
- (2) **HF** stands for High Frequency which is 200khzs on this unit. **LF** stands for Low Frequency with is 50khz on this unit. All of the items to the right of the HF and LF changes different aspects of the image for that frequency.
- (3) **Draft**: Enter the estimated depth below surface that you figure your transducer is mounted at. **CAUTION**: The unit for the offset is the same as the current depth unit. Changing the depth unit will change the amount of offset applied. For example, set the offset for 2 when the depth units is feet and then change the depth unit to fathoms and now the transducer offset is at 2 fathoms or 12 feet.
- (4) **Interference Rejection** has a selection of *Off*, *IR1* or *IR2* where *IR2* is the highest level of rejection. In most all case *IR2* should be used.
- (5) **Color reject** tunes out colors starting with the weakest to strongest. There are 30 total colors but only 14 levels of rejection where 0 is no rejection and 14 leaves only one color, brown as the hardest object possible.
- (6) **Background Color** can be changed to white, black, light blue or dark blue just by clicking on the desired color here. The FishFinder image resets when the background color is changed.
- (7) **Depth, Speed & Temperature** offsets. Use these three drop-down boxes to calibrate the Depth, Speed or Temp. Simply click on the appropriate box and select the value that is needed to be add or subtracted from to get the proper reading.
- (8) **Emphasis** setting is between 0 and 99. It is suppose to exaggerate the tail of the bottom echo. Usually you should leave this at zero unless your looking for something light like plankton layers and thermal inclines.

- (9) **Gain** setting is between 0 and 99. Increases the sensitivity of the echo return as it is increased. Changing this when in *Auto Gain* mode turns the auto-gain off. When using bottom classification, the gain is being changed by the program so this value will change by itself in this mode. When bottom classification is on you can help the program to get to the proper gain settings by changing this value until the hardness light flashes green most of the time with just an occasional flash of yellow. The program will eventually get to the proper level but you can aid it by doing it yourself just be sure to give a few seconds between each change to give the program time to respond.
- (10) **STC Level/Depth** controls the STC strength and depth of effectiveness. STC is basically a time varied gain where the gain is attenuated to start with then the gain increases to normal at the depth setting. Increase the STC level to just clear up the clutter near the surface and make it as deep as needed to make an even speckle of noise on the screen. No noise at all usually means too much STC if the noise picks up the deeper you go.
- (11) **Pulse** length is the length of time that the 50 or 200 khz signal is on for each strike on the sounder image. It can usually be left to short, increase only when running deep modes. Choices are *Ultra Short, Short, Medium and Long*.

- (12) **Configure IP** is used to change the IP and MASK address of the CVB20-A black box sounder. Click the *Configure IP* button on the *Settings* tab and the menu shown to the right here will appear. Normally you would never want to change this unless you are using a network and they conflict with the way your computer's network is set up. The *Actual IP*, *MASK*, *ROM Version* and *MAC Address* are displayed in green. Just click and change the text in the white boxes to the new values and click the *Apply IP* or *Apply Mask* buttons to make the changes to the CVB20A black box sounder. Be sure to write the exact values you changed to because once the changes are made you have to change your computer's network setting to compatible values or you will not be able to use CVB20A. You can change only the last set of numbers on the IP address without having to change your computer's IP settings otherwise you must set your computer's IP to be compatible.



One exception is when you use a ROUTER and set your computer's IP to be obtained automatically. In this case you do not have to worry about setting neither computer or CVB20A. The router will do this for you.

- (13) **Bot. Det. Threshold, Bot. Det. And Bot. Start** all help to define what is bottom from what is fish or clutter so the digital depth readout is correct. Only needs adjusting if you find the digital readout is jumping around or is locking onto some kind of false bottom.

The **Bot. Start** sets the place where P-Sea FishFinder starts to look for bottom. Anything less than this value is never considered to be bottom. Usually you want to set this so only the first few feet are ignored.

The **Bot. Det. Threshold** have settings for both frequencies. Adjust this for most stable depth readings.

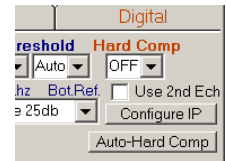
Chapter , P-Sea FishFinder Operation

The **Bot. Det.** choice of *Inside* or *Outside* looks for bottom that is only on screen when set for *Inside*, and it looks for bottom anywhere when set to *Outside*. The default is set for *Inside*.

The **Bot.Ref.** instructs the sounder which frequency to use for detecting the bottom. The choices are: **HF**, **LF** and **Auto**. Default is *Auto* which lets the CVB20 decide which frequency is best for determining the correct depth.

- (14) The **Pixel History** box allows you to increase the amount of the FishFinder image history is recorded. Each pixel is equivalent to one sounding or pulse. The default is 4000 pixels(soundings) but you can change this to just about any length if you like. Be careful though, changing this value too high can cause unusual operation like jerky screen or momentary freeze depending on the speed and RAM in your computer. When you increase this value, try increasing at 2000 to 4000 increments, running the FishFinder for an hour or so and see how it works. The memory resets when you hear a beep (if your computer is equipped with a internal speaker). If it works ok up to this point then it is ok to increase it some more IF need be.

A couple of new items not shown on the settings tab are shown here. Are *Use Second Echo* check box that will instruct the hardness to use the 2nd echo to measure hardness. Uncheck if working in depths were 2nd echo can not be reached.



Then the *Auto-Hard Comp.* button is used to calibrate the hardness readout so that hardness values will be more uniform when working at different depths. To work this feature you must know of a bottom that is the same at two depths, preferably the depths you want to work at. Then you start at the shallow end and click this button, then wait a minute and travel to the deeper depth and click the finish button. This feature is still experimental.

The Alarms Control Tab

Click on the **Alarm** tab to set any of the P-Sea FishFinder alarms.

The Alarms control tab is divided into sections: Main, Settings, Alarms, Options, and Units. Callouts explain the following features:

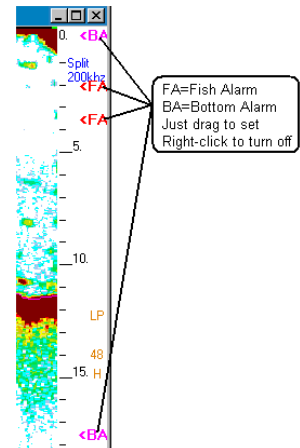
- 1**: Enter upper and lower alarm limits here for fish and bottom alarms.
- 2**: Sets upper and lower signal detection levels for fish alarms (0-14).
- 3**: Stops sending fish alarms to plotter when checked.
- 4**: Alarm is on when checked.
- 5**: When checked, the current value has to get larger than the alarm value to trigger otherwise it will trigger when it is less.
- 6**: When checked and the vessel speed is greater than the value then no alarm is sent to plotter.

- (1) Enter upper and lower limits for either **fish alarm** using the current depth units. Any fish that are between the upper and lower limits and meet the *Detection Level* and *Signal Length* will sound the alarm. You must press the Enter key for the values to take

The **upper** setting for the **Bottom** alarm will cause the alarm to sound when the seabed depth gets shallower than the alarm set depth. So you always set this value less than your current depth.

Setting the **lower Bottom** alarm will sound the alarm when the seabed goes deeper than the alarm set depth. So you always set this value to a value lower than the current depth.

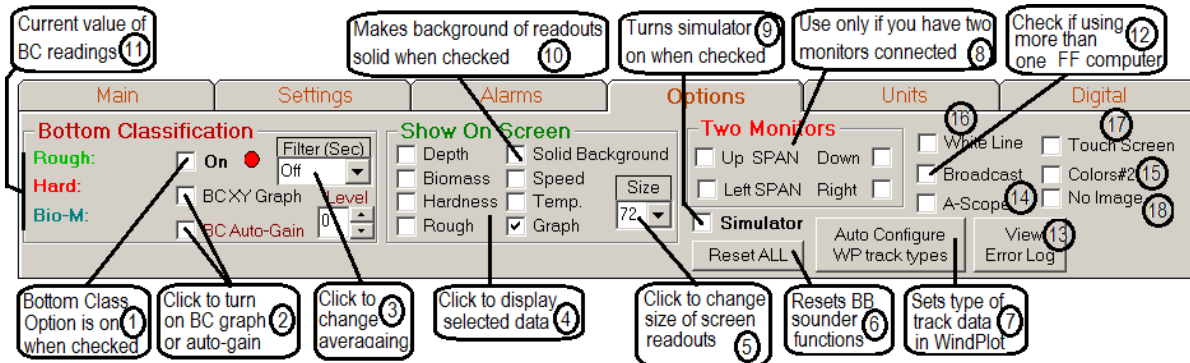
The easiest and best way to set these alarms is from the FishFinder scales as shown here to the right. Simply place the mouse arrow on one of the **<FA** (Fish Alarm) or **<BA** (Bottom alarm) labels to set and right-click to turn off.



- (2) **Upper and lower fish detection level** settings allows you to tune out some of the colors that the fish might be. There is a color bar just under these controls that simulates the colors that will be turned out. When increase the lower limit you will see some of the colors disappear on the left of this color bar. When you decrease the upper limit, you will see some of the colors on the right disappear. This simulates what colors are being tuned out but is not necessarily the exact colors.
- (3) **Stop making fish marks on plotter screen** when vessel speed is less than this alarm value. When it is not checked, a green fish mark is made at the beginning of a fish school and a red one at the end. The end mark also has a numerical value printed next to it that represents the size of the school. Set the minimum speed so that no marks are made when your fishing, then there is no need to mark fish on the screen.
- (4) These check boxes turns the appropriate Hardness, Roughness or Temperature alarms on when checked. You must set the value of the alarm and check the check box **More Than** if you want the alarm to go when the actual value gets larger than the set alarm value.
- (5) Check one of these **More than** check boxes to have the appropriate alarm to go when the actual value exceeds the alarm value.
- (6) **Do not send to plotter** stops making any marks on plotter screen when checked. When it isn't checked and the current vessels speed is greater that the **Min. Speed** then a green fish mark is made on the plotter screen at the start of a school of fish and a counter is started, when the school goes off the screen then a red mark is made and the total count is printed next to the red fish mark.
- (7) School of fish alarm signal length, 0 is long taking 20 soundings to activate alarm, 1 is medium - taking 12 soundings to activate the alarm and 2 is short taking only 4 samples to activate the alarm.

The Options Control Tab

(1) **Bottom Classification** is turned on by clicking this check box. When checked, all of the automatic



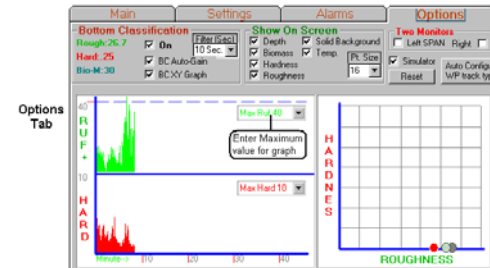
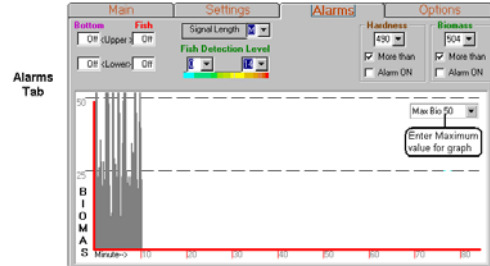
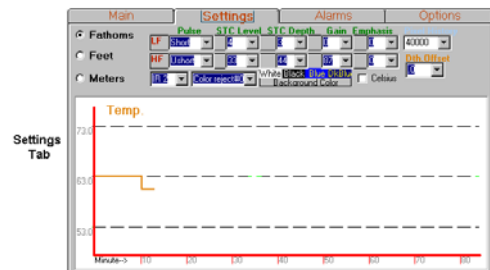
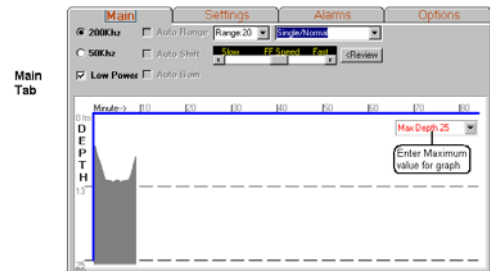
functions are dimmed as this option takes control of gain and depth. When it gets the depth and gain adjusted right, it displays two characteristics of the bottom, hardness and roughness. It also provides a third display of biomass or anything between the bottom and the surface.

In order for the BC function to work the 2nd echo must be able to be detected. This is because the Hardness is determined by the strength of these to each other. There is a green/yellow light (dot) just to the right of the **On**. This light is green when there is enough gain to be able to detect the 2nd echo and yellow when it isn't. The ideal setting is with just an occasional yellow showing now and then. You can use the **BC Auto-Gain** function to have the FishFinder set this automatically for you.

You may or may not see the second echo, it depends on the screen resolution of your display. The program requires at least 1024x768 and the 2nd echo will be under the TAB control with this resolution. Monitors with higher resolution will be able to see the 2nd echo.

When BC is turned on you will notice a graph displayed under the TAB control. Each tab will have a different graph as show here.

The second echo is used to calculate the hardness and roughness. The FishFinder send out a sonic sound wave that reflects off of the seabed floor and back to the transducer and that is how we display the bottom.



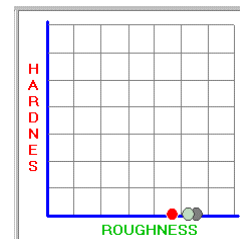
The second echo is where this same sonic wave has bounced off of the surface to the seabed and back again. Because of this it should be noted that the sea surface conditions can make a difference on the outcome of the hardness and roughness readings. Other things such as depth, sounding rate (speed of screen) can alter readings. For this reason you should always use the same control settings and sea conditions when recording hardness and roughness for accuracy. But even in rough conditions you will still be able to tell when over rough or hard bottom.

Clicking on Histograms to jump to location on chart in P-Sea WindPlot

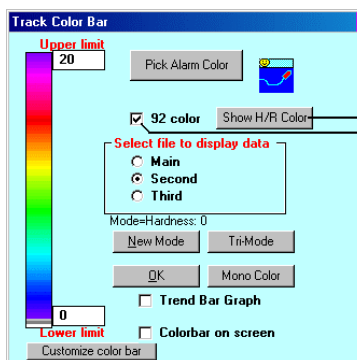
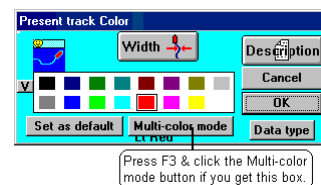
When you have the bottom characteristics turned on you get four different histograms as previously described. If you started the P-Sea FishFinder using P-Sea WindPlot you can click on any portion of the graphs to display the chart in the area where that portion of the graph was created. That is, if you click on any graph say that was done an hour ago causes the cursor on P-Sea WindPlot to be turned on and moved to time and location where that graph was created. Then you can just click the *GO TO* cursor info box and a waypoint is set for that point so that you can steer back to it. Click the histogram again to turn the cursor off again and resume your normal plotting.

- (2) **BC Auto-Gain** check box causes the gain to be adjusted by the program when checked, keeping the yellow light just flashing once and a while. The gain value is printed in the scale column when this is on. The **Level** box to the right of the *Auto Gain* check box allows you to control the level of the auto-gain. A higher number and the gain will be set a little higher.

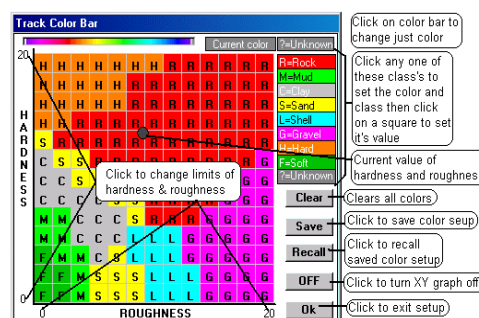
BC XY Graph check box will display a red dot on an XY grid as show here. The red dot represents the current value of Roughness as compared to Hardness which can be used to determine the type of bottom such as mud, sand, rock and so on. This graph gives a quick view of the relation of the hardness to roughness. With experience, you will be able to tell what kind of bottom your currently going over just by where the red dot is at. A hard bottom with little roughness may be clay bottom where a real rough bottom with some hardness will most likely be rocky and a combo of both is most likely shell mounds. When it is operating you will notice a trail of white to grey/black dots. These dots are showing the past trail of the graph so you can see the it's trend.



This graph is carried over to the P-Sea WindPlot II *Multi-Color* mode setup. If you click *Multi-color mode* in WindPlot and click the *ShowHR Color* in the *Track Color Bar* window to get the new, *HR Track Color Window* shown below.



Check the 92 color box and click the SHOW H/R Color button



Click the color bar to pick up a color, click a square to fill it with that color and right-click a square to pick up a color from any square. Be sure to add about having tide correct depth and speed shut off. Add that you can hold down the left mouse button over the squares to create a color path.

- (3) **Filter (Sec)** drop-down box allows you to select a filtering rate for the BC function. Without it the values jump wildly. The default 10sec. should be adequate for most conditions but if you find it jumping too much to your liking then increase it but be careful, too much and what your seeing on the screen will be lagging way behind you.

If you set the filter to “*Hi/Lo*” then a new method of determining hardness is used, this is experimental too. Instead of the software determining gain and range it uses the auto-gain, auto-range features of the CVB20A black box.

- (4) **Show On Screen**, check these boxes to have the value show on the lower-left of the FishFinder image screen. These same values will appear on the plotter under the vessel's speed and heading so this allows you to turn them off of the FishFinder.

- (5) Click the **Size** down arrow to select the size of print for the readouts (4) above.

- (6) Click the **Reset** when the/if the FishFinder stops functioning or values seem wrong. It will reset all presets to factory settings and reset the Ethernet connection.

- (7) Click the **Auto-Configure WP track types** if you have not set the P-Sea WindPlot II tracks to store the recommended Depth, Hardness and Roughness. It makes the Depth the main track just incase you're going to use the track data to generate a 3D bottom (if or when you get the 3D option). Just click the button once, there is no need to click it more than once unless you reinstall or reset P-Sea WindPlot II. You should also switch the track colors to at least **Multi-Color** mode as only the Depth will be recorded in Mono-Color Track modes.

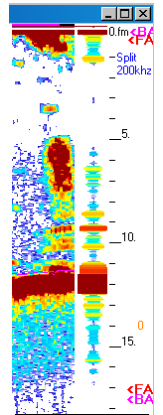
- (8) The **Two Monitor** option section is ONLY when you have two monitors connected to a computer that has two 15 pin video connectors connected to two monitors. Before clicking the any of the **SPAN** check boxes, make sure the monitors are setup properly. You must be able to display a program maximized on only one monitor. In other words, if you open P-Sea WindPlot and it stretches clear across both monitors then your not setup right. Check your display properties, there should two monitors showing in the **Settings** part. If not then you're video monitor is not setup to display two monitors. Then click on monitor 2 and set it as the **attached** monitor. Drag the second monitor to top, bottom, left or right of the #1 monitor in the same manner that the displays you are using are mounted. If the second monitor is on top of the regular monitor then drag the #2 monitor so it is on top of #1. The you need to set it up so that it does not span clear across both monitors. We can not get into this as it is different for each video card. Check the instructions or just do trial and error until you get WindPlot to come up on only one screen.



Chapter 8, P-Sea FishFinder

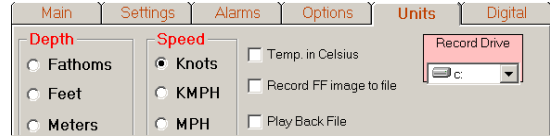
When you get P-Sea WindPlot II to come up on just one of the two monitors then open up the FishFinder by clicking on the **Options** menu select **P-Sea FishFinder**. After the 30 second warm up for the FishFinder click on the **Options** tab on the FishFinder tab. For side-by-side monitors, if P-Sea WindPlot is showing on the left monitor then check the **SPAN Right** check box otherwise click the **SPAN Left** check box. For monitors that are one on top of the other, if P-Sea WindPlot is showing on the lower monitor then click on **SPAN Up** otherwise click on **SPAN Down**. The FishFinder should move to the blank screen. You can drag the edges of the FishFinder to make it fit the screen if you like. If you find the picture jumps too much then make the FishFinder screen smaller by dragging the edge back again. The reason it jumps is that the computer is not fast enough to keep up with refreshing the complete screen.

- (10) Click the **Solid Background** check box so that it is checked to have the data displays (4) background appear solid, without any of the sounder image behind them to clear up the readouts.
- (11) These readouts appear when you have the BC function turned on. They show the current value of Bottom Hardness, Roughness and Biomass.
- (12) **Broadcast** check box. This needs to be checked when connecting one CVB20A to multiple computers. It allows the CVB20A data to be shared.
- (13) **View Error Log** button. Displays a list of errors if any are present.
- (14) **A-Scope** When the "A-Scope" check box is checked you will see a ventricle bar appear along the right side of the sounder image as shown to the right here displaying the echo that is immediately under the boat. The color and width of the bar depends on the strength of the echo. This takes extra computer time to draw so turn it off if you notice a jerkyness to the sounder image.
- (15) **Color #2** displays another color scheme for the sounder image. Set to a color scheme that suits you.
- (16) **White Line** check box; When this box is checked the deep red part of the bottom is changed to be displayed in white.
- (17) **Touch Screen** check box; This just causes the control buttons for range, shift, depth, gain and STC to remain on the screen at all times.
- (18) **No Image** check box; Simply turns the FishFinder image off so all you are left with is the digital readouts.



The UNITS Tab

This tab allows you to change depth, speed and temperature units. Simply click to select the Depth or Speed units so the dot is in front of your selection. It also can be used to start/stop recording of the FishFinder image to a file & play back of the recorded image.

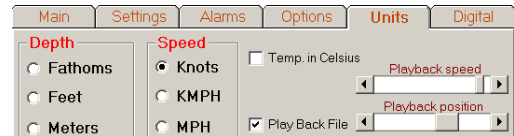


Recording the FishFinder Image; Just set the *Record Drive* to the computer drive that you want to save the image to. Then click the *Record to FF image to file* check box. If a recorded file already exists, it will ask you if you want it recorded over. Just select yes or no. Then the program will begin recording and show you the size of the file as it records. The file will be save to a folder by the name of **SndRecord** in the root of the selected record drive. You can make the record drive a memory stick if you wish. Click the “Stop record” at any time to stop recording.

Playback Speed; The speed of the recording is constant whereas the original speed depended on the depth you were at. You can adjust the playback speed if you like to match the speed at witch it was recoded at. Also notice that you will not be able to alter the depth or gain settings as it is playing back just as it was recorded.

Playing back the recorded file; To play a file back, just click the *Play Back File* check box and you will be prompted to select a file from a list to play back. Just enter the corresponding number to begin playing the file.

Temperature units degrees C or Celsius is displayed when the *Temp. in Celsius* control is checked. Degrees F or Fahrenheit is displayed otherwise. The temperature is display down to the hundredth of a degree.



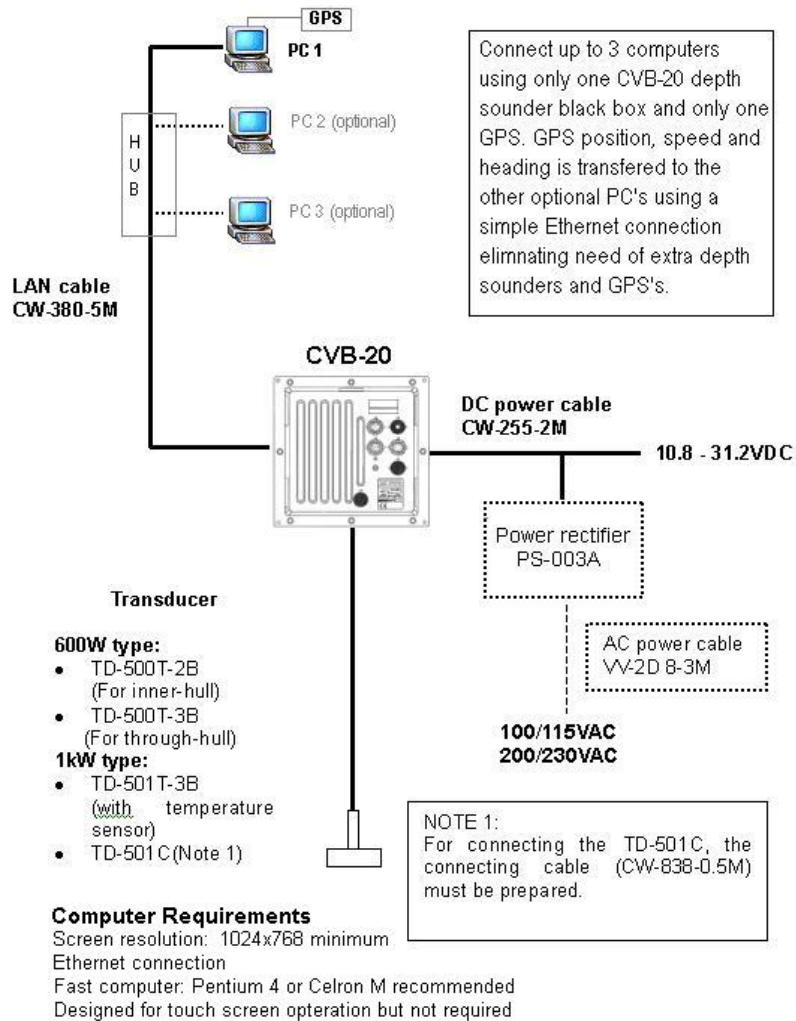
Operating the Bottom Characteristics Option

There are some things you need to be aware of first when operating the **Bottom Characteristics** (or BC as we if further refer to it) function of the P-Sea FishFinder. BC requires a good second echo, that is where the sound wave has bounced off the seabed, back to the boat, then back down again to the seabed as it bounces off the ocean surface and then back up again. The relative signal levels of the first and second echo is used to tell the hardness. It should be obvious then that the sea conditions will play a role in getting accurate determination of the BC harness and roughness values. Although bad sea conditions can cause loss in accuracy, you can still use it to tell what the bottom type is but any experienced user can do that from the FishFinders video picture. So, one should be concerned about keeping an accurate description in the track column of the current sea conditions for each track made with the BC function.

Speed issues

P-Sea FishFinder will cause some stress to a Pentium 4 computer but it should work fine. You can drag the edges of the sounder image to make it wider or narrower. More stress is put on the CPU as the image is widened. Faster pulse repetition rates will put more stress on the CPU. Slowing down the image with the image speed control in the *Main* tab will put less demand on the CPU. A jerky picture happens if the CPU can not keep up with the image data from the CVB20A.

Wiring Diagram

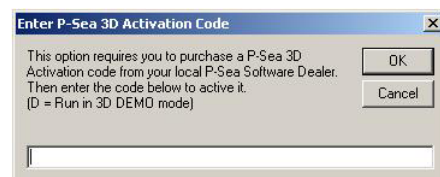


P-Sea 3D Operation

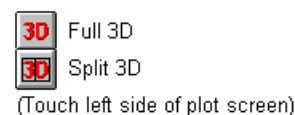
3D is an option that is not normally included with P-Sea WindPlot. You must install the 3D version of P-Sea WindPlot and purchase the activation code. It comes with one 3D data CD.

Starting P-Sea WindPlot 3D

- 1) Start P-Sea WindPlot and enter your SR#
- 2) Click on *Options* in the menu bar and select *3D Window*.
The 3D window should appear on the right side on a few moments.



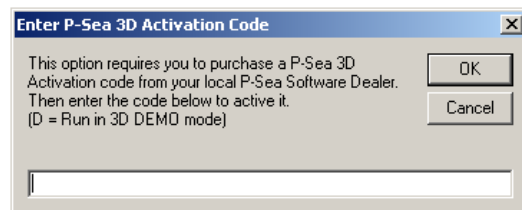
OR you can start the 3D by clicking on a set of buttons that appear when you touch on the left side of the plotter like these shown to the right here. The top button calls the 3D in full screen mode while the lower button calls the 3D in split screen plotter/3D mode. These buttons DO NOT appear until the Activation Code shown below has been entered.



Entering the Activation Code.

In order to access the 3D you must purchase an activation code. This code can be purchased from your local P-Sea Software dealer.

- 1) Start P-Sea WindPlot and enter your SR#
- 2) Click on *Options* in the menu bar and select *3D Window*.
- 3) A box will appear asking for the code, then just enter and select *Ok*- the 3D window will open up.

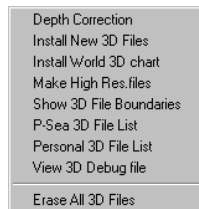


If you make an error entering the number and it is not accepted you will have to restart the program in order to try it again. This number is saved by the computer and there is no need to enter it again on this computer.

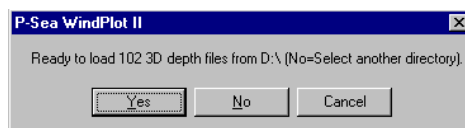
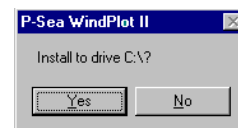
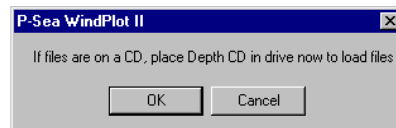
Chapter 9 - 3D OPTION

Loading Personal/Regional HR/World 3D Data Files

The easiest way to load 3D data files is to place the 3D data CD/DVD in the drive BEFORE starting P-Sea WindPlot 3D. Then you will be asked if you want them loaded when you restart WindPlot and enter your SR#. ...OR... The 3D data files can be loaded with WindPlot running in 3D mode. Files are simply copied to the *PcD3depth* folder. Some files are serialized so the program will not load or display charts with the wrong serial number. The files can be identified by a *B* as the first letter and have a “BDF” file extension.



- 1) With WindPlot 3D running in 3D mode, click *Depth Files* menu.
- 2) Then select *Install New/World 3D Files*, you will be asked to place the CD in now. Place the appropriate CD in now and select *OK*.
- 3) Then you will be asked if you want to install it to drive “C:”. Usually this is the preferred place so just click on *Yes*. Select *No* to choose a different drive if available.
- 4) Then the program will then indicate how many files and where the files are coming from. Just click *Yes* to begin the install. As the files install you should see the screen count down the number of files to install along with the name of each file. (i.e. “Copy #101 B38124.BDF”).



NOTE: You can stop the files from copying by pressing the “Esc” key. Keep pressing as it will not stop until the current file have finished copying. World 3D only appears when plotter range is more that 50 miles.

3D File list

The *P-Sea 3D Depth Files* window list all files in Lat/Long, you can jump to or delete a file. You can also change the drive that the files are displayed from.

Each standard 3D file that is represented by a dot on the USA map consists of many individual depth readings (1.44 million) that cover an area of 1 x 1 degrees of Lat/Long. If you look at the actual file names, they indicate the area covered. For example, 3D depth file #1 shown here to the right covers 27-28N Latitude and 88-89 W Longitude. The name of this file would be “B28089.BDF”. The High Resolution files cover a smaller area, Each is 10 x 10 minutes in size, each with another 1.44 million depths. It takes 36 of the HR files to make up one standard resolution file. Look at the last column in the file list labeled “#HRF”.

This column list how many HR files that are available for the standard 3D file that covers the same area.

A screenshot of the "P-Sea 3D depth files" window. It features a map of the United States with colored dots representing depth files. A text box explains: "Each dot is a depth file. Click on any dot to either: 1) Delete it, 2) Jump to it or 3) Display a thumbnail". Below the map is a table with columns: D#, MaxLt, MinLt, MaxLg, MinLg, #HRF. To the right of the table are buttons for "Use depth files from drive", a drive selection dropdown (currently showing "c: [IBM...]", "Total = 0", "3D File Folder", and "Close".

D#	MaxLt	MinLt	MaxLg	MinLg	#HRF
1	36°N	35°N	75°W	74°W	0
2	36°N	35°N	74°W	73°W	0
3	36°N	35°N	76°W	75°W	0
4	36°N	35°N	77°W	76°W	0
5	36°N	35°N	78°W	77°W	0
6	36°N	35°N	79°W	78°W	0
7	36°N	35°N	80°W	79°W	0
8	36°N	35°N	81°W	80°W	0

Calling the 3D file list

Click on *Depth Files* menu then select *P-Sea 3D files* to list the 3D files from P-Sea Software or *Personal 3D files* to list the file made from the P-SeaBed Builder option.

Setting DRIVE to get 3D depth files from

The files will automatically load to drive “C” in a folder named “**Pc3Depth**” unless you change drives in the *Depth Files* ' *P-Sea 3D files* menu. The list of files will appear with a drive selection located at the bottom of the window. Just change the drive and click the *Use depth files from drive* button.

Changing 3D depth file folder

The default 3D file folder is “**Pc3Depth**”. If this default 3D file folder is ok then there is nothing you have to do. You can change to another folder if you like. The folder must already exist, if it doesn't then use Windows to create a new one. Then to change to that folder, first select the drive it is in and then click the “*3D File Folder*” button. Then navigate to the new folder by clicking the proper path in the window that appears. Then click the “*Change Folder*” button to lock on the new folder. The USA and the list should reflect what is in the new folder you changed to. If there is any 3D files of any kind then the list and the USA map will be blank.

Exploring a 3D depth file.

You can click on first column labeled *D#* to jump to the center location of the file. The program automatically closes the file list, turns on the cursor and places the cursor in the center of the depth file. Click on the second column labeled *MaxLt* to copy the file you click on to another drive and /or directory. Click on the third column to copy ALL files to another drive and/or directory.

USA 3D Map

A map of the US is displayed at the top of the 3D file list. All 3D files within the area covered by this map will show up as a dot to indicated the files location. Just click on one of these dots to jump to the center of the files location and display it, delete the file or display a thumbnail of it. The first time you click on one of the dots you get an option menu to select what will be done when you click on the dot again. Just select one then click on the dot.

Creating High-Resolution 3D files from the 3D file list

When 3D was first created for WindPlot there was just one level of 3D detail. Each file covers a 1x1 degree area. Later the 3D program was used to make new HR files that are 6 times better resolution were created from the standard files. It takes 36 of he HR files to cover the same area as one standard resolution files. In late 2009, P-Sea Software Company started providing 3D High-Resolution (HR) on DVD's for each standard 3D region sold. P-Sea 3D data files are at 3-arc second. This means that on lower-ranges like 5 miles or less you begin to see a boxy-looking 3D display. If you decide to make your own HR 3D files, then it takes approximately 1 minute to create each file and each file is 4 megs in size. Therefore be sure you have several hours to just let the computer work and that you have plenty of disk space (about 6 gigs will do it for each region). The program will estimate the time and disk space required before you begin and you have the option to cancel out if you decide to. IT IS NOT RECOMMENDED TO DOTHIS AT SEA as it increased the chance of hard drive failure.

Chapter 9 - 3D OPTION

To begin creating high-res. 3D files, just start the 3D program (Options>3D display) in P-Sea WindPlot II 7.13 or better, click on the “*Depth File*” menu on the 3D window and select “*Make High Res. Files*”. A “Stop” button is provided so that you can interrupt the creator at any time. The files you already made will be bypassed the next time you start the creator.

Some of the HR files supplied with the program are made from real data, these files are considered High Definition (HD). They are supplied with the HR DVD and P-Sea Software will keep adding new areas as they become available. If you like to look at the file names then you can identify the HD files by the file extension BDH instead of the normal BDF 3D file extension. HR and HD files both have the same amount of data, the difference is that the HD files contain more real data, that is they were created from real bottom information whereas the HR files were created from the lesser detailed standard BDF files.

Personal 3D files

Basically this is the same as above except it lists all personal files created using the P-SeaBed Builder option.

Erase all 3D files

This is a menu item in the *Depth files* menu Erases all 3D files from the hard drive. Just click on *Depth files* in the 3D window and select the last item *Erase all 3D files*.

Computer Setup & Trouble shooting

The program is designed to work with a computer screen resolution of 1024 x 768 when using the “Split Screen” mode otherwise some controls will not be available.

3D also requires either 16 or 32 bit color depth. The P-SeaBed option however only works with 32 bit color. You can check these settings by right-clicking on a blank area of your computers desktop (anywhere where a icon is not) and select properties from the menu that appears. Then click the SETTINGS tab. This window has both the color depth and screen resolution. Just make the appropriate changes and click on apply. Be sure to close P-Sea WindPlot anytime you make these changes.

The 3D WindPlot program requires a 3D Windows driver /engine program called Direct X 8.1 or better. This comes with all windows from 98SE on up but the version may be less than that and the 3D will fail to operate. You can check the 3D setup and other Windows and computer specifications using the **DXDIAG.EXE** program located on the installation CD. To run it use MY COMPUTER to locate the file on the 3D installation CD and double-click it to start it up. There is DIRECTX 8.1 update on the install CD for Windows 98 and ME, just run DX81ENG.EXE (just run DX81END.EXE from RUN on the task bar) or just find another program on the installation CD called D3OPTIONS.EXE and double-click it to start it up. Then click the INSTALL DIRECTX8.1 button to update your direct X. To install 8.1 on XP and Win2000pro, locate the **DirX81for XP_2000pro** folder and run “DXSETUP.EXE”. You can not run the plotter in SPLIT SCREEN and use the 3D at the same time. If you are still not able to get the 3D working, then make sure the plotter is not trying to run in plotter split mode (this is different than 3D split mode). To do this, first restart WindPlot 3-D program. Do not start the 3D,

instead choose the WINDOW menu and select SPLIT SCREEN. Now click on the FULL SCREEN window box and exit the program again. Now restart WindPlot 3D and see if the 3D work.

Try going into the 3D *Options* menu and click on “*Favorite Settings*” then select “*Recall Defaults*” then restart the 3D program.

You can get further assistance finding the problem from the 3D debug file. This is a text file that is generated by the 3D program that follows each step when creating a 3D image. The 3D debug file can be displayed by opening the 3D window, click on then “*Depth Files*” menu and select “*View 3D debug file*”. Some of the text could give you an idea what is wrong.

Did you load your 3D depth files? If the 3D screen says *NO DATA FOR THIS AREA* and your positioned where there should be data then you most likely do not have the 3D data loaded. To load 3D data, just place the 3D data CD in the drive and select *DEPTH FILES* from the 3D window menu. Then select *P-SEA 3D DEPTH FILES* and just answer the questions that are asked. When files are loaded, you should see them listed in the 3D file list menu path = “*Depth Files*” > “*P-Sea 3D File List*”.

If you have checked all of the suggestions above and still just see a blank screen, then try putting the mouse arrow in the middle of the 3D window and at the same time hold down on the right mouse button. Move the mouse now up and down (same as zooming in and out), right and left (same as rotating the 3D picture) and see if you can’t get some kind of image on the 3D screen.

Now if you have **3D working but it crashes** when you try to go full screen or resize the borders then you need to load the version of Direct X that came with the video board on your computer. It must be at least version 8.1 or better. If you can not do this then open up the 3D screen without resizing it. Click on the *OPTIONS* in the menu bar of the 3D window and select *Resizing Error* and try it again.

You should read this entire section on 3D before you begin so that you are familiar with what the 3D program is suppose to do. There are a lot of settings that need to be done to fit the way you want the 3D to work but you must read it all in order to really know which of these settings is right for you. Once you get the 3D running you should choose the 3D *Option* menu and select “*Favorite Settings*” and select “*Save Current Saving*” so that you can recall these settings. That way you can go ahead and play with all the different settings without worrying about it. When things do not look right, just click on this menu again and choose “*Recall Default*” settings. You might need to restart the program in some cases if it still does not look right.

Setting up for P-SeaBed Builder

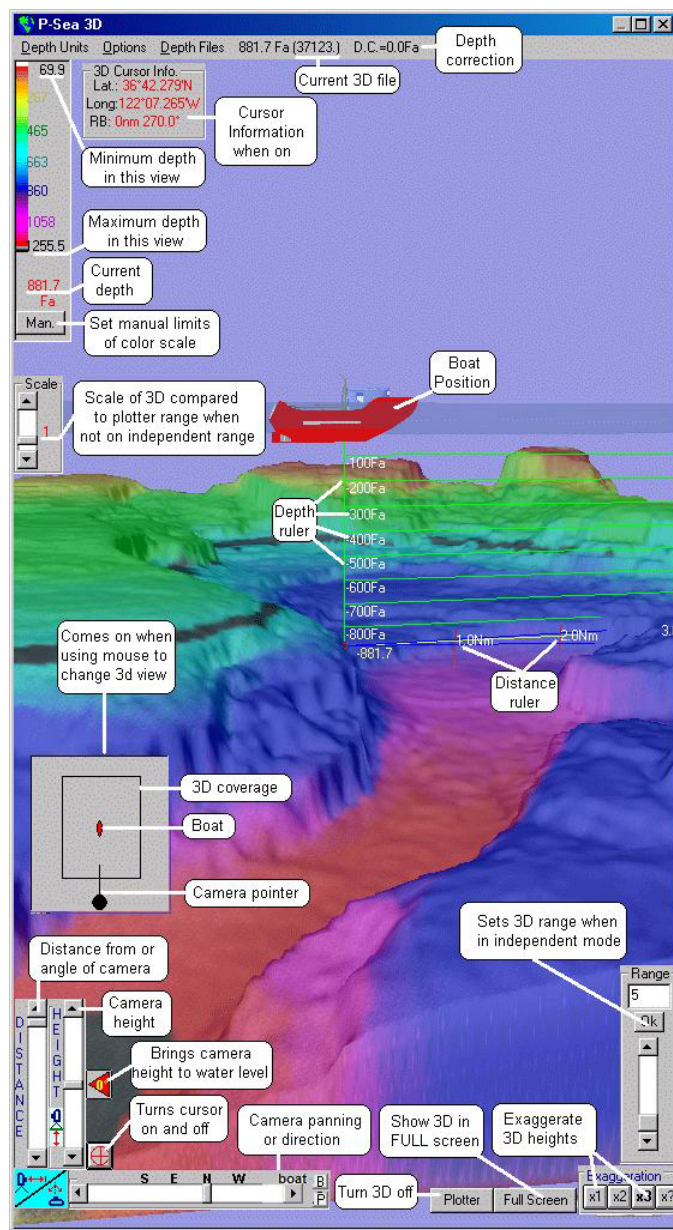
In order to make your own charts with P-SeaBed Builder, your depth sounder needs to output NMEA0183 *DBS* or *DBT* sentence to the computer. When this is properly done, the depth readout will show up just below the vessel’s speed and heading on the upper-right of the plotter screen. Once you get the depth working then the depth needs to be stored some how. This is done using your tracks files as depth storage, be sure to check that your tracks are storing depth by going to “*TRACKS*”> “*CURRENT*”> “*TRACK TYPE*” menus. **Even if you did not purchase the 3D builder option, we suggest you get your tracks setup to record depths now.** That way if you ever decide to purchase the P-SeaBed Builder option you will already have the depth data recorded!

The 3D Window Layout

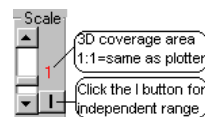
First, it is necessary to understand that the picture in the 3D window can best be referred to as a CAMERA VIEWPORT. Try and imagine a remote controlled submersible craft with a camera attached and the 3D window is the camera's display. By holding down on either the right or left buttons, your mouse controls the everything but the height/depth (ballast) of the submersible. The height is controlled by a slider control located on the right near the bottom. There are 3 scroll bars at the bottom of the 3D page (distance, height and rotational) that will control the 3D view point.

The 3D window is shown here with all of the controls labeled with a brief description of what they do. Starting at the top-left is the color bar graph. This only shows up when you have the "AUTO COLOR DEPTHS" menu item in the "OPTIONS" > "DISPLAY MODE" menu checked. You have the choice of letting the 3D program set the upper and lower limits automatically or you can assign them yourself in the manual color mode. In **Color Depths** mode the 3D SeaBed is shown layers of color with the different colors representing different depths as indicated in the color bar shown to the right here.

Click the *Man.* Button located at the bottom of the color bar and the upper and lower depths are replaced with boxes that you can enter your own maximum and minimums for the color bands. Usually you want to make these inside the automatic maximum and minimum depths.

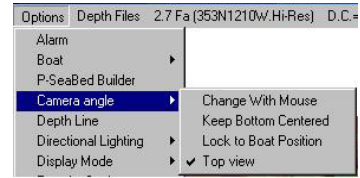


In dependent range mode (default) where the 2D range is tied to the 3D range, a scale scroll bar is provided so that you can select to show more 3D area than the 2D plotter is showing. Drag the *Scale* scroll bar (dependent ranges only) to adjust the scale of the 3D view. When set to one, it matches the coverage area of the plotter screen. Set it to 2 to cover twice the area of the plotter screen. Maximum setting is 7 and the program will automatically readjust the size down if you get it too large for the 3D program to handle. Set this up when you are using small plotter ranges. The "I" button located on the scaler changes the 3D to independent ranges where the 3D and 2D ranges and cursors work independently from each other.

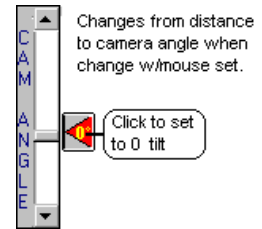


P-Sea 3D Operatoin

The items located in the lower-left will change depending on the “*Camera Angle*” setting in the “*Options*” menu. These controls can be thought of controls for a SUV with tilt, height and distance controls.

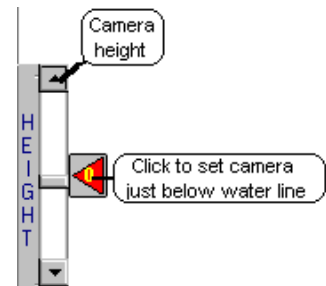


When set to *Change with Mouse*, the scroll bar controls the tilt of the submersible camera and appears as shown here. It will be located just below the color bar is the scrollbar that can represent either the **tilt** (or down bubble) or the distance from center of boat/bottom depending on how you have the *Camera Angle* select set in the *Options* menu show to the right here. A button will also appear in this mode that will change the tilt to zero degrees when clicked as show here to the right next to the menu list. Not available in *Top View*

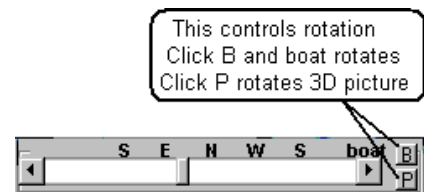


The other menu selections control the distance submersible is from the center line that drops down from the boat to the bottom of the screen. The scroll bars appearance changes as show here to the right in this mode. Not available in *Top View*

The last item located on the left of the 3D window just beside the *Camera Tilt or Distance* scroll bar is the camera height (or depth of the submersible). Camera **HEIGHT** is controlled by moving the scroll bar on the bottom-right of the 3D window. If you put the scroll bar all the way to the bottom, the camera will FLOAT on the bottom of the seabed. Placing the scroll bar all the way to the top will put the camera somewhere above the water line. You can set the water transparency so that you can see through the water and thus still see the bottom. When doing this you need to set the camera tilt all the way to the bottom of the setting.



Located to the bottom is the **rotation** (or submersible heading) slider. You can click and drag these controls to do the same actions as the mouse. Click the red button with the yellow zero to put the camera at a 0 degree or no tilt. Drag the pan scroll bar on the bottom to move to north, east, west or southern views represented by the letters S, E, N and W. Not available in *Top View*



There are two buttons on the right-end of the pan slider “B” and “P”. Click the “B” and “Boat” will appear on the scroll bar. When in this mode the pan slider moves the “BOAT”. Then when the only the boat rotates when the vessel heading changes and the 3D scenery stays still. When “P” is selected the slider bar displays “Pic.” Now when the vessel changes heading the boat stays pointing the same and the 3D scenery rotates.

The **Full Screen** button located to the right of the PAN control expands the 3D screen over the entire screen. You can still track and mark while in full screen 3D mode. Marks and tracks will appear on the seabed as long as they are turned on. One word of caution is that the speed of the 3D is reduced for each track that is display. See *Show Track Lines* in the *Options* menu description for more



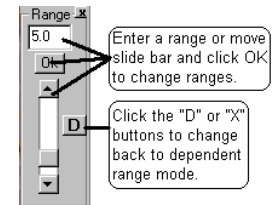
Chapter 9 - 3D OPTION

details. The **Plotter** button turns the 3D off and returns back to the plotter screen in full-screen mode. Full mode does not have full control of the plotter functions so we suggest using split screen mode for normal operation.

Located to the right of the Full Screen button are the exaggeration buttons. **Exaggeration** exaggerates apparent height and depth of objects like canyons and sea mounts making bottom detail easier to see. There are four selections, **X1**, **X2**, **X3** and **X?**. The **X1** is a one-to-one ratio from water to seabed. **X2** is the height of objects are twice as big as **X1** where the water line remains the same. **X3** is 3 times that of **X1**. When you click **X?** you can enter any value up to 10. In most cases “X3” is gives the best results.



Located just above the “Exaggerate” buttons and on the right-side of the screen is the “3D Range” box. This only appears when 3D display mode is set for “Independent” operation. Just enter a range between 1 and 7 to bring up the Hires 3D charts, 8 to 26 for regular 3D charts and 50 on up for the World 3D charts. In 3D split-screen mode you will notice when changing ranges that the plotter side does not change when you change the 3D range and visa-versa. Click the “D” button on the range box to switch back to “Dependent” range mode.



Tracks. In *Color Depths* mode the tracks will show in the 3D if *Show Tracks* is checked in the 3D *Options* menu. . A word of caution is due if you have a lot of tracks concentrated in the area you are working in and you are using the *Color Depths* display mode. In this mode the program has to redraw each track for each frame of the 3D picture. For a smooth 3D picture there must be at least 4 frames per second. So if you have say 10 tracks showing on the screen and the frames per second is 10 then the computer has to draw 100 tracks each second so you can see how a bunch of tracks can slow the computer down considerably. It is suggested to turn off any tracks that do not need to be displayed or switch the *Color Depths* off by un-checking it. Of course the tracks must also be turned on in the plotter screen as well for them to show up in either 3D display mode.

Setting up for P-SeaBed Builder EVEN IF YOU DIDN'T PURCHASE IT!

In order to make your own charts with P-SeaBed Builder, your depth sounder needs to output NMEA0183 to the computer. When this is done the depth readout will show up just below the vessel's speed and heading on the plotter screen. Then the depth needs to be stored somehow and this is done using your tracks. The track depth data is used to rebuild the bottom. Be sure to check that your tracks are storing depth by going to *TRACKS' CURRENT' TRACK TYPE* menus. You should do this even if you do not have the P-SeaBed option because you can store tracks in depth now and use it later to rebuild your bottom should you ever decide to purchase it.

Check Your Computer Speed with 3D!

After loading your 3D data CD's you should check your computer 3D drawing speed. The speed is measured in FPS or Frames Per Second. For new installations this is automatically turned on the first time the 3D window is opened. If you do not see the letters FPS in red in the upper-left of the 3D window then click on “*OPTIONS*” in the 3D window and select “*FRAMES PER SECOND*”. This number will change a little with various 3D options that are selected. It will also increase as you get closer to the seabed. It only measures the FPS when you are moving the 3D picture around. When you

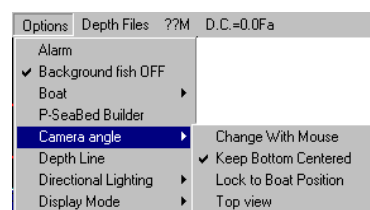
have a fast computer you shouldn't notice any jerky movement in the 3D. For a usable computer the ***FPS needs to be at least 4 for smooth operation***. If your number is lower than this then try turning off some Options in the 3D options menu like less maximum tracks or turn some of the tracks off. Then try a faster video board and make sure you have at least 512 megs of RAM. If you are using two monitors, try reversing the main monitor in the video settings. Run "Top View" mode if your FPS is less than this as it does not need to be fast. If you are using two monitors to display the plotter and 3D screen separately and you have a low FPS then try swapping the monitors around. Only one of the two monitors will be fast enough for 3D.

What should you expect to see?

What you **shouldn't** expect is to see individual rocks, wrecks (unless they are large), boulders and other small objects. The purpose of this program is to give you a general three dimensional perspective of the oceans floor as if you were looking at it from a mile or two. Later, we will add more detail for use with the bottom builder that will bring smaller objects more into focus but for now do not expect to see any detail. For this reason we suggest you either use plotter ranges over 4 miles or run the 3D scale up to 3 or better. Otherwise you will be looking a blocky chunks that are at each individual depth readings. By the way each spot depth is spaced 3 seconds apart.

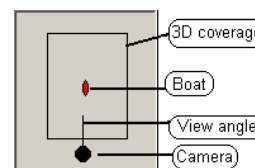
Mouse Control (Not available in "Top View")

The view in the window is referred to as the CAMERA view. The mouse controls where the camera is pointing. There are four modes that the mouse can operate by. The four options are selected in the 3D "Options" menu show here to the right under the menu item "**CAMERA ANGLE**". The first selection "**Change with Mouse**" gives total control to the mouse and you have to use both right and left mouse buttons to



gain total control of where the camera view is. The next is the preferred and default method "**Keep Bottom Centered**", keeps the camera pointed at bottom located directly beneath the boat in the center of the screen at all times by automatically controlling the tilt and pan depending on camera position. (beware, in this mode the bottom may not appear if the camera height is set too high or bottom is too deep). The next menu item "**Lock to Boat Position**", automatically controls just the pan only, depending on the position of the camera. If you do not like how the mouse works for 3D then you can purchase a computer "Joy Stick" that will control the 3D as well. The last item, "**Top View**", has no mouse control. The 3D picture is presented as if you're looking through a glass bottom boat.

While you hold either mouse button down, you will see a gray square appear in the 3D window that aids you in where the camera is in relation to the boat. The box inside of this gray box represents the total area covered by the 3D screen where the top of the box is pointed NORTH. The red dot represents the boat and the back dot is the camera with a black line pointing the direction the camera is aimed at. This is a view as if you were looking from the top down.



The workings of this should be more apparent once you have the program running and you use the mouse to change positions.

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Mouse Control / **Change with Mouse**

See the diagram on the right here. Place the mouse arrow over the 3D window then press and hold the **left** mouse button. When you move the mouse up and down the camera view tilts up and down. Move the mouse right to left and the camera pans (swings) right to left. Press and hold the **Right** mouse button and the screen goes right and left as you move the mouse right and left. The 3D bottom moves further away as you move the mouse away from you and closer as you move the mouse closer. Remember, you still need to adjust your camera height depending on the depth you are at. If you do not see the bottom then move the camera height down (use scroll bar on lower-right) and move the bottom further away.

Mouse Control/**Keep Bottom Centered** (Recommended/default)

This mode is most like the first mode except the pan-left and pan-right when you hold the left mouse and move left and right causes the pan to center on the boat instead of going around in a circle (if make mark with right button is not selected).

Mouse Control/**Lock to Boat Position**

See the diagram on the right here. The right mouse button is not needed in this mode and it only works when the cursor is not turned on. This mode is the most automated and thus *the one recommended to use*.

If you move the mouse right and left, the camera view is rotated around the bottom located underneath the boat. Move the mouse towards you to move closer away and move the mouse towards the center of the 3D to move closer. Note that moving above the center also moves away from the bottom. Tilt and pan are automatically adjusted in this mode so there is no need to use the right mouse button (if make mark with right button is not selected).

Mouse Control/**Top View**

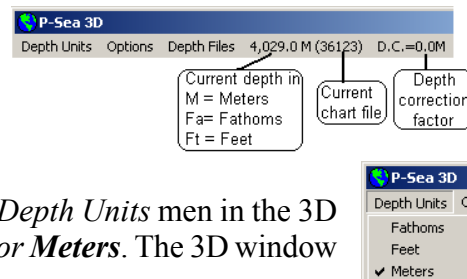
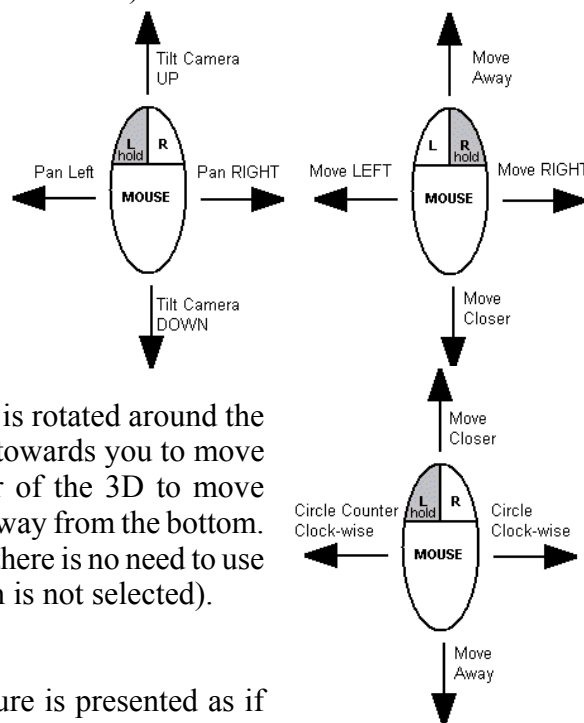
The “Top View”, has no mouse control. The 3D picture is presented as if you’re looking through a glass bottom boat.

P-SeaBed 3D Menu Bar

The 3D menu bar is split up into four main categories: **Depth Units**, **Options** and **Depth Files**.

3D ' **Depth Units**

This menu is used to change the depth **Unit** readout. Just select *Depth Units* men in the 3D window and click on one of the three selections; **Fathoms**, **Feet** or **Meters**. The 3D window will redraw with all depth units changes to your selection.



3D ' Options Menu

Alarm: Set a depth to alarm at if gets deeper and/or shallower.

Boat: Changes 3D Boat position icon size and level in water or turns it off.

Bottom Builder (Optional) : Builds 3D screens from track and mark files.

Camera Angle: Change how mouse and keyboard reacts in 3D viewport.

Depth line: Provides a black line at a depth you enter.

(Only appears when not using chart overlay mode).

Depth line alarm: Alarm sounds when outside of selected depth line depth.

(Only appears when not using chart overlay mode).

Directional Lightening: Directional lighting setup for presenting 3D SeaBed with shadows directions , color depth, boat shadowing, brightness and overlay offset

Display Mode: Selects Chart Overlay/color scale modes; Auto, Manual and Custom color and more.

Favorite Settings: Save and recall your current 3D settings or set to factory defaults.

Fill in edges: Edges where the 3D ends are squared off when checked.

Indicators: Select what indicator aids will be displayed.

Turn off Hardware TL: Turns of Hardware Transform and Lighting.

Joystick Setup: Sets up buttons and controls on Joystick for specific tasks.

Show Marks: Turn 3D marks on with a highlighting circle or depth option.

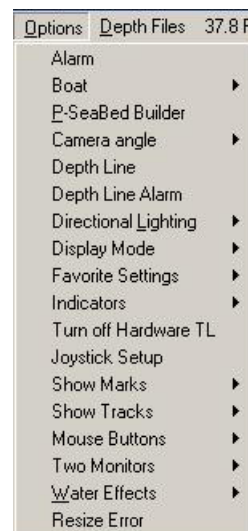
Show Tracks: Sets how tracks are displayed in the 3D window.

Mouse Buttons: Switches right and left mouse buttons or makes mark w/right button

Two Monitors: For dual video displays, selects single or dual monitors

Water Effects: Controls water clarity, level, surface transparency, wave speed or turns it off completely.

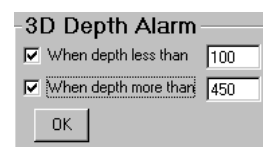
Resize Error: Click this so it is checked if your computer crashes when the 3D window is resized.



3D ' Options ' Alarm

Click this menu option to call the window shown to the right here.

You can set a audio/visual alarm to go off when a certain depth is either gone more and /or less than the specified depths. Just set the depth you want in the box to the right of the check box and click the check box so it is checked.

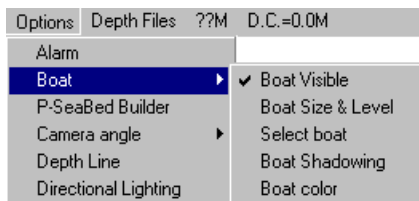


3D ' Options ' Boat sub menu

Changes 3D Boat position icon, adjust its level in water or turns it off.

3D ' Options ' Boat ' Boat Visible

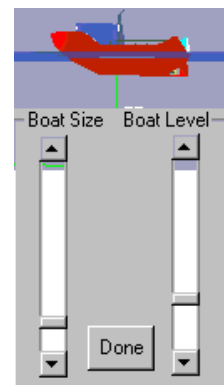
Un-check to turn 3D boat icon off.



3D ' Options ' Boat ' **Boat Size & Level**

Adjusts how deep the 3D boat icon is in the water.

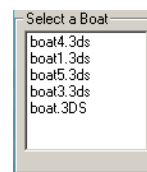
- 1) Make sure the boat is visible in the 3D screen.
- 2) Select the *Boat Size & Level* item in the *Options ' Boat* menu path.
- 3) Two scroll bars will appear, just drag and watch the boat level or size adjust as you move it.
- 4) Click *Done* button when you are satisfied with the level of the boat.



3D ' Options ' Boat ' **Select Boat**

There are several 3D boat icons to choose from.

- 1) Click *Select boat* item in the *Boat* menu.
- 2) Click on one of the boat names.
- 3) Adjust boat level and size as previously mentioned.



3D ' Options ' Boat ' **Boat Shadowing**

Use to change how bright the boat will appear. This can also effect the shadowing of the bottom on some graphics cards so if the bottom appears dark, try changing the boat shadowing. If bottom appears black, try changing this value to 10 to 40 and see if it helps.

3D ' Options ' Boat ' **Boat Color**

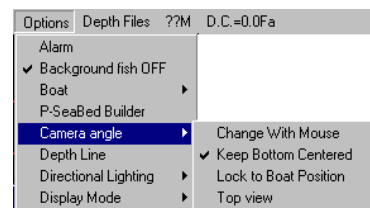
Select a solid color for the boat or click *Cancel* to return boat back to original color.

3D ' Options ' **P-Sea Bottom Builder Menu (Optional)**

See *Using the P-Sea Bottom Builder Menu (Optional)* at then end of this section.

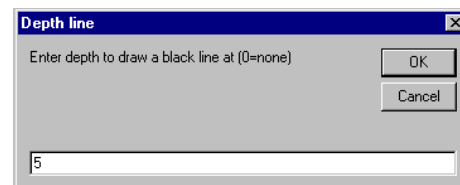
3D ' Options ' **Camera Angle** sub menu

This is a sub menu that has three categories shown here to the right. Please see *Mouse Control* that was previously described for the details of each except for *Top View*. This mode is always looking straight down and the boat is always oriented in the north direction. Default is “*Keep Bottom Centered*”.



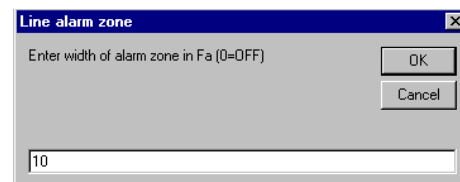
3D ' Options ' **Depth Line**

This places a black band in the depth you specify. When clicked the box to the right here appears. Just enter in a depth you want to display in black. This only works in the *Color Depths* mode. Set it to zero to turn it off. **NOTE:** The black line may disappear in areas where it is fairly steep.



3D ' Options ' **Depth Line Alarm**

This only appears on the menu when the *Depth Line* option above is set to a value above zero. Then you just enter in a

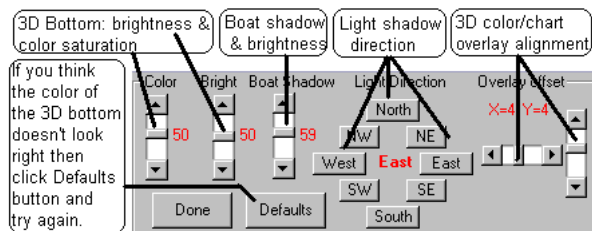


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depth band. For example you set the depth line at 100Fa. Then select this option and enter 10. Then the alarm would go off when you got deeper than 105Fa or shallower than 95Fa. Enter in a zero (0) to turn off.

3D ' Options ' **Directional Lighting**

Directional lighting presenting 3D seabed with shadows giving a truer 3D effect. It simulates sunlight and the sunlight can come from different directions that you can select. The reason you would want to change the direction would be when the light was coming straight at you. Then there are too many shadows and the screen will begin to flicker. If the camera direction is to the south then you want the light coming from anywhere but from the south. Just click on *Options* in the 3D window then select *Directional Lighting* then select the direction you want it coming from. The 3D window will update each time you make a change.



Overall 3D brightness and color saturation can be changed by clicking on *Brightness* in the *Directional Lighting* scroll bars. You will get the control shown to the right here. Brightness is form 1 to 100 percent of brightness where 100 is maximum brightness.

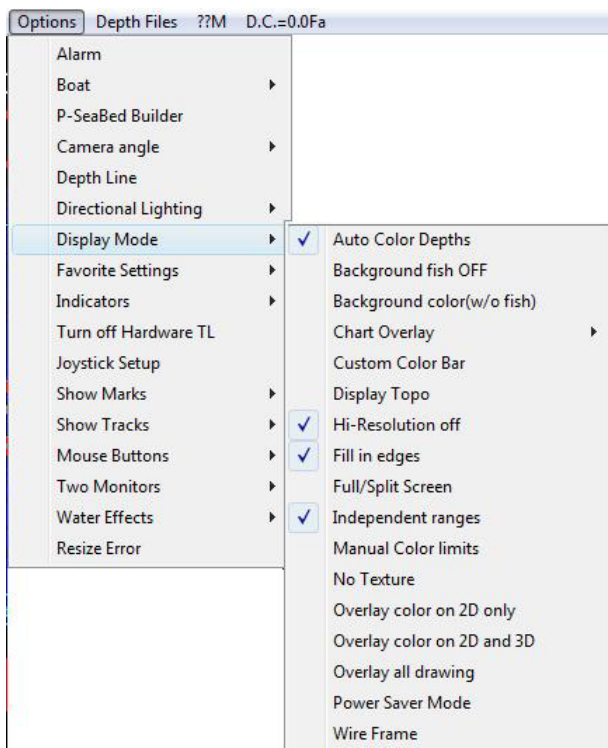
Click the "Boat Shadow" Scroll bar to control how bright the 3D boat icon appears.

Chart/Color alignment: If you see that the colors or chart doesn't quite match the bottom then try clicking the *X* and *Y* offset scroll bars to nudge the overlay a little one way or the other. The 3D picture will update for any change you make. *Click on Done* when you are satisfied.

3D Picture Reset (if it does not look right) There are so many settings in 3D that you could end up getting poor looking 3D picture. In this case the "Defaults" button should be clicked if you ever think the 3D picture doesn't look right. This will cause these settings in this window to go back to defaults. The 3D window will close and you can reopen it with the new settings and start over.

3D ' Options ' **Display Modes**

Switch from 3D color to 3D chart overlay modes. You can display the 3D SeaBed in many different basic modes; chart overlay & 3 color modes; Auto, Manual and Custom. Click to change and is in color mode when checked. Another option, "Overlay color on 2D" works in conjunction with the 3 color modes by transferring the colors made by the 3D on the 2D plotter side. Any charts that are turned on the plotter will be turned off while this function is



activated. Independent operation makes ranges and chart overlay to work independent of what the plotter screen is set for. Power saving mode is now always turned on so this item is grayed out.

3D ' Options '

Display Modes' **Auto Color Depths**

In the **Auto-color mode** the 3D bottom is displayed in colors that vary with depth. A color bar will appear in this mode with the top value as the minimum and the bottom of it labeled with the maximum depth for the current 3D color range view.

3D ' Options ' Display Modes ' **Background fish OFF**

This turns off the background that looks like fish when the camera view is below the water line and the clouds and sun when above the water line when checked. If your computer is slow, it will help to turn this option off or you may prefer to have the background clear. When they are on, you will see the 4 compass directions embedded in with the fish in the background so that you know what direction the boat is heading. There is also a slider at the bottom of the screen to let you know what direction the 3D view is showing.

3D ' Options ' Display Modes ' **Background color (w/o fish)**

Without the background fish on as just described, there is just a blank background. You can change the color of this background though this option. Just click on *BackGround Color* in the *Options/Display Modes* menu and choose a color from the color window that appears.

Options ' Display Modes ' **Chart Overlay**

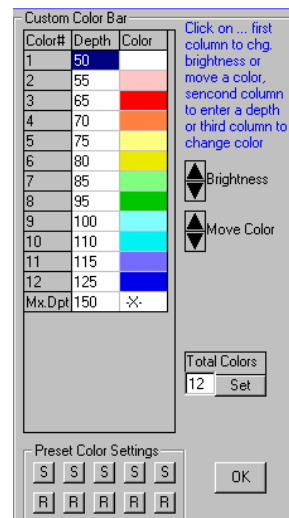
When in 3D independent mode, this menu is used to choose what charts to overlay on the 3D bottom. This does not work unless your in 3D independent mode because then the chart that is overlaid is decided by the plotter program.



When not in independent mode, chart overlay mode takes a copy of exactly what is on the plotter screen and overlays it onto the 3D contour in the 3D window. Note: any new marks require you to refresh the plotter screen in order to see them. You can use the 3D scale to make the 3D cover a larger area. You can choose between 3 types of chart to overlay, P-Sea Software **Bathymetric** contours of the bottom, BSB or SoftChart navigational or P-Sea Vector charts.

Options ' Display Modes ' **Custom Color Bar**

In **Custom Color Bar** mode you get the window shown here to the right to build your own custom color bar. First decide how many colors you want and enter it in the *TOTAL COLORS* box and click the SET button. You can select up to 125 colors. Then choose the color scheme by clicking on each box under the *COLOR* column and pick a color from the Windows color editor. Then start at the top and click on the *Depth* column and enter the depths starting with a low number and get bigger as you work your way down the scale. Make sure to fill in all of the boxes with depths in this column including the very bottom one with no color, just an X in it.



When your satisfied, click the OK button to set the wheels in motion. The 3D screen will redraw at this point with the color scheme you selected. If you like it, go back and select the *Custom Color Bar* menu again and this time just click one of the *S* buttons at the bottom of the screen and note which one you clicked for later reference. This saves the current setup into a backup file. You can create up to 5 of these backups with different color schemes if you like. Just click the *R* button under the *S* button to recall any one of the reset settings you make.

You can change the brightness or order of any one of the colors in the color bar by first clicking on the first column that has the number of the color. Then use the up/down arrows on either the *Brightness* or *Move Color* controls.

3D ' Options ' Display Modes ' **Display Topo (Land)**

This option allows you to basically turn the 3D off where land is and thus you land appears flat, at the water line. The reason for doing this is it enhances the 3D display of the bottom near the shore line. You can also improve it by setting the water level to "L". See "*Options*">"*Water Effects*".

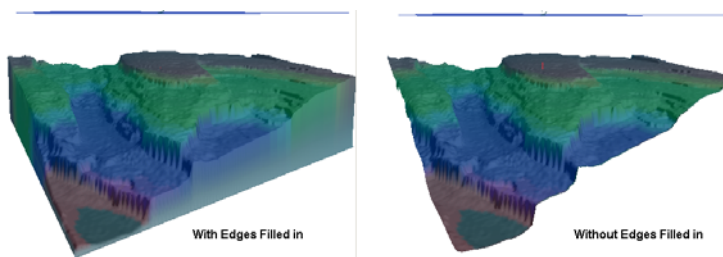
3D ' Options ' Display Modes ' **Hi-Resolution off**

High resolution files are not displayed when this item is checked. Then only the standard and world 3D files will work.

Hi-Res 3D mode increases the 3D resolution by a factor of six. You can not use 3D Hi-Res mode until you have either loaded the HD 3D DVD or generated the Hi-Res files using the program. Hi-res 3D files can be generated from the standard resolution 3D files you should already have. See the last section "*Files*" of this 3D guide in for details on how to make 3D high resolution files.

3D ' Options ' Display Modes ' **Filling in Edges**

This option fills the edges of the 3D chart as shown to the right here. The picture on the right shows what happens when this option is checked.



3D ' Options ' Display Modes ' **Full/Split Screen**

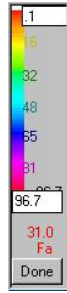
Toggles between full or split-screen 3D with the regular 2D plotter displayed on the left part of the screen.

3D ' Options ' Display Modes ' **Independent Ranges**

This mode is a little more than just independent ranges. When checked, the 3D screen operates independent of the plotter screen. You can change to different charts, ranges and control how marks and tracks are displayed without changing the plotter side. It only has works if in split screen mode where 3D is on one side and the potter screen is on the other.

3D ' Options ' Display Modes ' **Manual Color Limits**

If you select the “*Manual Color Limits*” you will see two new white boxes in the normal color bar. All you just need to do here is enter the upper and lower limits of your desired depths into the color bar’s boxes and click on “*DONE*” when done.



3D ' Options ' Display Modes ' **No Texture**

Turns off sea bottom texture making it a smoother looking seabed.

3D ' Options ' Display Modes ' **Overlay color on 2D only.**

Check this menu to have the 3D depth color overlaid on the chart on the plotter side. This will turn 3D window to a tiny window and overlay the 3D color on the 2D plotter screen.

3D ' Options ' Display Modes ' **Overlay color on 2D and 3D**

Check this menu to have the 3D depth color overlaid on the chart on the plotter side. This will only work if 3D is setup to display color depths and it must be in non-independent mode to work.

3D ' Options ' Display Modes ' **Overlay all drawing**

There are two way to display marks and tracks when using 3D. 3D can create real time line drawings for marks and tracks or draw them one time and overlay the picture onto the 3D bottom.. In the line-drawing 3D mode the marks and tracks are completely redrawn for each 3D frame. Therefore, the computer will tend to slow down as more and more tracks and marks are to be displayed.

The overlay display of marks and tracks draws them all one time and then overlays they onto the 3D bottom once. The advantages of this is that it also draws mark lines, waypoints, routes and boundaries as well. It does not slow down the computer other than the one time it overlays onto the 3D bottom. You will see the widths of lines vary as the 3D ranges vary however.

The Options menu has further control of this overlay function when you select “Marks” or “Tracks”. Each of these menu items can turn the overlay and line drawing on or off.

3D ' Options ' Display Modes ' **Power Saver Mode**

The program now runs in Power Saver Mode all the time now.

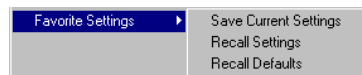
The other Power Saver Mode draws the 3D only when needed like when the position updates or you move the mouse over the 3D window. This case the processors speed and be reduced down to almost nothing unless the mouse is moved across the screen or bottom changes or anything changes on the 3D. The greatly reduces the power and heat in the cases of today’s fast computers.

3D ' Options ' **Wire Frame**

Wire frame is used to refer to the matrix that is created for the shaping of the 3D picture before all of the other colors and textures are applied to the scene. This is the basic building blocks of 3D much like the framing of the a house before the siding and other stuff is applied to it. We provided this mode just for those who are curious how 3D is made, you normally should not leave it in this mode.

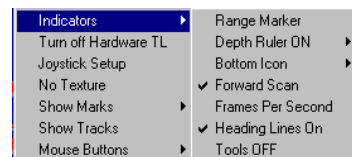
3D ' Options ' Favorite Settings

Click on *Save Current Settings* to save your current 3D in a backup file. Then click on *Recall Settings* when you want to bring them back. Click on *Recall Defaults* when you just can't get the program back the way it was. Then this should restore all values back to original installation values and you can start over.



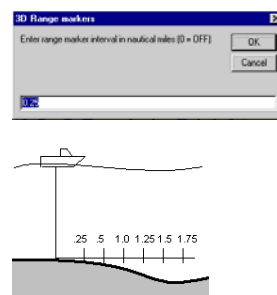
3D ' Options ' Indicators

The following is a list from the Indicators sub menu that contains many different functions that will aid in measuring the depth, range and headings.



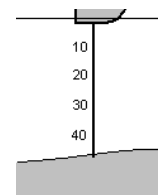
3D ' Options ' Indicators ' Range Marker

There is a line that extends out from the boats position on the bottom that indicates the direction of the vessel. You can place range markers at any interval you choose. Just click on the 3D *Options* menu then select *Range Markers* and the window shown to the right here will appear. Just enter a spacing range in Nautical Miles you want to appear on the line. Quarter mile (.25) is show here. Enter a zero (0) to turn the markers off. You must turn the water line off to see this above water the line.



3D ' Options ' Indicators ' Depth Ruler On

Draws a line from boat (or the cursor when the cursor is turned on) to bottom with depth scales printed. Numbers mark the depth at even intervals either automatically or you can select the spacing manually. The line disappears when the submersible (camera) is above water line unless the water is turned off.



In the *Auto* mode, the depth markers spacing depends on the depth and zoom you are set at. Select *Manual* and enter a spacing you want. Select *OFF* to have no ruler on at all.

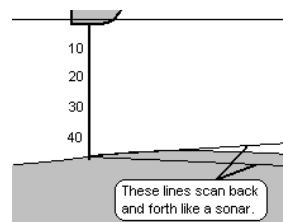
3D ' Options ' Indicators ' Bottom Icon

You can have the bottom where the boat is directly over show a round pattern that will indicate a certain transducer beam angle to give you a better idea of what the sounder is looking at. You can also have just a fixed size entered that stays the same width no matter what depth.

To set the pattern just click on “Options” in the 3D menu bar, select “Indicators” then “Bottom Icon” and select either “Transducer Size” where your asked to enter the beam width of the transducer, fixed where you enter a range from .1 to 10 miles or “Off” so that no icon is showing. Keep the range low when using the “Fixed” mode as the icon disappears if the range is less than the width of the icon. This icon “Dies” after a few seconds unless it is updated so you will notice it disappearing when you use the “Power Saver” mode as the 3D is not continuously refreshed and thus the icon will tend to die (disappear).

3D ' Options ' Indicators ' **Forward Scan**

Draws two dark blue lines from boat bottom position, one up about 3 degrees from level and one about 3 degrees down. These lines disappear as they go into the seabed. The feature is a handy aid when following a ledge.

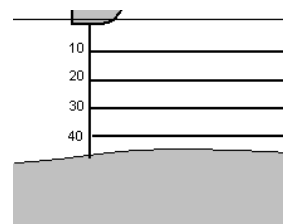


3D ' Options ' Indicators ' **Frames Per Second**

Display number of 3D frames drawn per second in upper-left. This is handy to test the speed of your computer. It should be at least 10 FPS for a smooth zoom and pan. You can turn things off in the 3D screen to speed this up if needed. Tracks and marks slow the 3D screen the most. Note that the FPS are only accurate when you are manipulating the 3D in some way like rotating it or panning in and out. So drag the mouse around the 3D screen when checking the FPS of your 3D program/computer.

3D ' Options ' Indicators ' **Heading Lines On**

When cursor is off green lines also extend out from this line at each point in the scale as shown to the right here. When the boat turns these lines follow pointing the direction of the boat. The depth at this point is printed on the bottom. Then a yellow line extends out from there. This yellow line is level and will disappear if the depth in front of the boat is getting shallower. You will keep at the same depth if you turn the boat so that is line is just barley visible.



3D ' Options ' Indicators ' **Tools off**

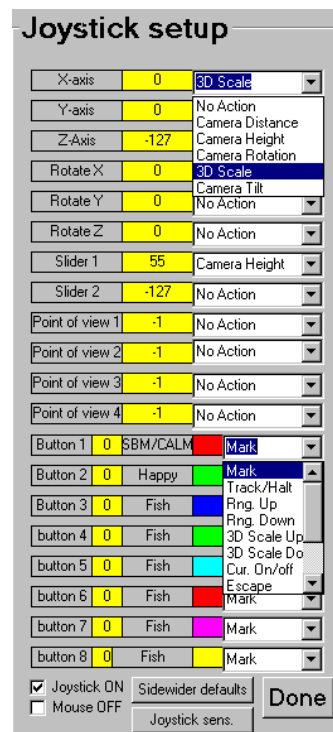
Turns off most buttons from 3D window.

3D ' Options ' **Turn off Hardware TL**

Click to turn off the video boards Hardware accelerators. This may be hand if you get some strange things happening with a new video board that is not compatible with the 3D program.

3D ' Options ' **Joystick Setup**

There are a variety of joysticks available, some with just a few buttons and some with as may as 8, some with joysticks and some with just arrow button. All buttons and controls can be programmed for many different functions of WindPlot including changing ranges and making different marks. Not all of the functions listed will be available for any one game device or joystick. To find out what is available on your game pad, you can play with it's buttons and controls watch for the values change in the Joystick Setup window shown on the right here. If the value changes then that function of the joystick is available. Then you just need to click on the drop-down box and select from one of the features of WindPlot you want that control to work.



Setting up the Joystick in Windows

WindPlot will work with just about any game pad or Joystick but it must first be installed in Windows or at least check to make sure it is setup. Follow the directions that come with the joystick, usually you just need to plug it in and make sure it is listed in the *Gaming Options* found in the Windows Control Panel. However, you can use the program to check if it is install as it will give you a warning that it is not installed when you try to turn it on. The at that point you know you need to install it in Windows as stated above.

First Time Joystick Activation and Programming

You must activate the joystick by putting an X in the *Joystick ON* check box before you can start programming. Figure out what controls you have on your joystick or game pad by playing with it's controls while watching the Joystick setup window. To program any one of the controls, simply click the drop-down box button located next to the control and select what you want it do to. You can go back into this setup and change any one of them at any time while 3D is running. The computer will remember these settings the next time you bring up the 3D screen. Be sure not to give two controls the same function and we suggest you label the buttons with the function they provide. There is a default setup button that will start with a recommended setup, just click the "Sidewinder Defaults" button. The Sidewinder Defaults is good for may types of controllers. When programming for marks, you can also click on the color located to the left of the selected word "Mark" to change the color and shape of the mark for that buttons programming.

Note that the 3D Joystick settings supercedes the Joystick Setup for 2D WindPlot outlined above.

Joystick Sensitivity

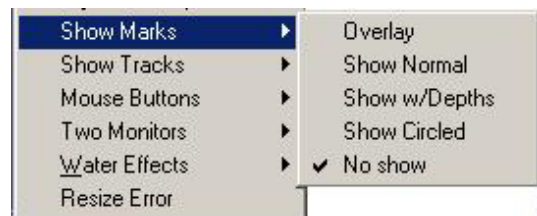
The Axis and slider controls may work too fast or too slow for your 3D program. You can change the sensitivity of these controls by clicking the "Joystick Sensitivity" button. Click this button and enter a percent of control, that is 100 is the fasted and 1 would be the slowest response for the controls.

No Mouse Control

If you use a joystick to pan and tilt the 3D camera view then it is recommended to deactivate the mouse on the 3D window. To do this you just put an X in the *Mouse OFF* check box of the Joystick setup window. When deactivated the mouse will only work on the 2D plotter screen.

3D ' Options ' Show Marks

The marks and hangs can be displayed in the 3D windows. Just click on "Show Normal" in the "Show Marks" item of the 3D "Option" menu. They show up looking like jacks and can be hard to see. Select "Show Circled" and a white circle will appear around each mark



on the 3D side. Click on "Show w/Depths" and the depth will be printed next to each mark. *BEWARE* these circles and depths do not always mean there is a mark there. They appear even when the mark is behind the hill or valley as if you can see through the sea bottom.

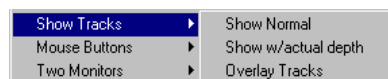
Chapter 9 - 3D OPTION

Note: Too many marks can slow the 3D down, try tuning unnecessary marks off using Marks Search and Edit.

They can also be overlaid on the bottom picture much like the way they are drawn in 2D. Just check the “**Overlay**” option in the mark menu. The marks will appear at different sizes as you change 3D range but unlike the 3D mark draw, the overlay only has to be drawn once when the 3D screen initializes. This mode is less likely to slow down the computer.

3D ' Options ' Show Tracks

There are three methods of displaying tracks in this sub-menu, “Show Normal”, “Show w/Actual Depth” and “Overlay Tracks”. The “Show Tracks” actually draws track lines over the 3D bottom and is

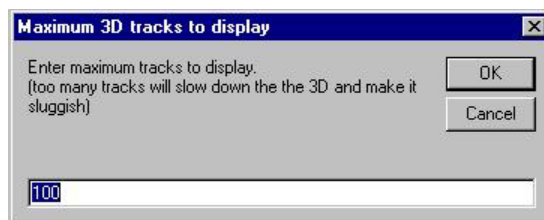


redrawn many times a second. The Show w/Actual Depth will use the depth data imbedded in the track file and display the height of the track that way. The only trouble with this is the track will not be visible where it goes deeper than the 3D bottom is. When you select either of these two modes you will be asked to enter a limit of how many will show at any one time. We suggest trying 10 to start with. The reason for this is that if the computer is at all slow, too many tracks may make the program appear to lock up. So, try 10 or 100 if you think your computer is fast and move to an area with the most tracks that will show at once and check out how it responds. But do not wait to check it out or you may be unhappy when you are fishing an area and it turns out to be to slow.

The “Overlay Tracks” option draws the tracks on the 3D bottom picture before it is place on the 3D bottom. These tracks are not as distinct as the “Show Normal” mode but since they are only drawn once (unless you change range or go out of the 3D area), they do not take any processor time and so will not become sluggish as you add more and more tracks.

3D ' Options ' Show Tracks ' Show Normal

This selects how many tracks to display at one time in the 3D window. If the screen is still too slow then go back and lower the number of tracks. You do not have control of which tracks are displayed. So if you have a lot of tracks showing on the plotter screen and find the 3D sluggish then try instead to reducing the number of 3D tracks or use the “Track Search and Edit” window in the “Track” menu and turn off or erase some of the tracks in the area. Enter a value of 0 to turn all tracks off

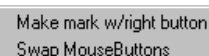


3D ' Options ' Show Tracks ' Overlay

Check this menu to have tracks drawn on the 3D picture before it is applied to the 3D screen. Tracks do not appear as sharp as the “*Show Normal*” mode but they do not make the 3D screen sluggish when you move the 3D screen. You will also notice the tracks to become fat or discolored, depending on the current 3D range and other display settings.

3D ' Options ' **Mouse Buttons**

Switches right and left mouse button camera pan, tilt and zooming control. You also have the option of using the right button to make a mark.



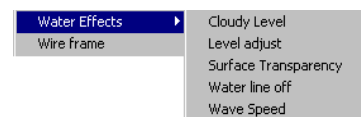
Make mark w/right button
Swap MouseButtons

3D ' Options ' **Two Monitors**

Windows allows you to connect two monitors at the same time using a dual-video board. When set up right, it will look like one long computer screen when the monitors are put side by side. When this is set up you can click on either *Span Right* or *Span Left* to have the program open the plotter in screen and the 3D window in the other. If span right does not produce both pictures, shut down the program and try the other Span.

3D ' Options ' **Water Effects** sub menu

Controls water clarity, level, surface transparency, wave speed or turns it off completely.



Cloudy Level - This is a fog like effect that adds a “looking through water effect; Click it and enter a value between .1 and 10 (.1 is default)

Level Adjust - Water SURFACE level, adjust to make ports and harbor water levels to look right. 0 = no adjust, use same units as displayed in 3D, minus values lowers water. Or enter a “L” to have water line appear closer to bottom, that way you are more likely to see both your boat and the sea bottom in same picture. Then enter a “N” to go back to normal water levels if you wish.

Surface Transparency - Choose this and enter a value between 0 and 100 where 100 would be solid, 0 is fully transparent and 75 is the default.

Water line off - Simply turns water line completely off. When off, the previous settings have no effect. Turn water line off to see depth and range ruler when above water line.

Wave Speed - The program will simulate a wave motion. This controls how fast the wave moves back and fourth. Enter a speed value between 1 and 100 where 1 is the slowest.

3D ' Options ' **Resize Error**

Click this so it is checked if your computer crashes when the 3D window is resized by dragging one of the edges or when going into full screen 3d mode.

3D ' **Depth Files Menu** sub menu

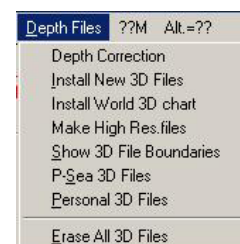
Depth Correction - Correct depth using Tide, GPS altitude or/and manually.

Install New 3D Files - Loads 3D depth files from P-Sea Software CD library.

Install World 3D Files - Loads the World 3D depth files from P-Sea Software installation CD.

Make High Res. Files - Creates High Resolution files from the Standard 3D files.

Show 3D file Boundaries - Outlines each 3D file when plotter



ranged past 500 miles.

P-Sea 3D files - List all files in Lat/Long, jump to or delete a file.

Personal 3D files - Lists all personal files created.

Erase all 3D files - Erases all 3D files from the hard drive.

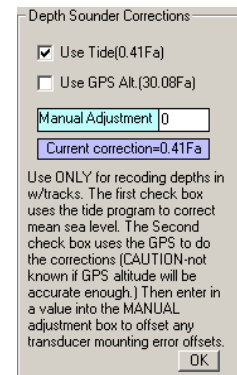
Depth Files Menu ' Depth Correction

Correct depth using Tide, GPS altitude or/and manually. This works in only when generating your own 3D P-SeaBed. It applies the calculated correction to the depth sounders' input before storing it to the personal 3D database track file. Then the track files are used to generate the file for 3D presentation. It does not apply any compensation to any files that are already made.

The first check box, “**Use Tide**” will automatically apply the present tide calculations to compensate for any tidal differences.

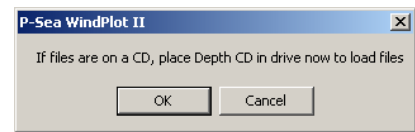
The next check box, “**Use GPS Alt.**” applies a GPS altitude offset. **DO NOT** use this unless you are sure your GPS altitude is stable enough to do so. Usually this is not the case.

Enter in a “**Manual Adjustment**” to compensate for transducer placement or other offsets. Just enter in the value you believe it is and check with some reference point if available.

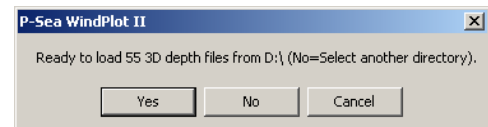


3D ' Depth Files ' Install New 3D Files

Loads 3D depth files from P-Sea Software CD library. Just place the P-SeaBed region CD into the CD drive and select this menu item. An instruction box will appear like the one to the right here telling you to place the CD in, just click on *OK*.



Next a box will appear letting you know how many files it has found to load as shown to the right here. You can click on *NO* if you want to search for other files on a different drive or directory or click on *Yes* to continue to load all files.



3D ' Depth Files ' Install World 3D Files

Loads 3D depth files from P-Sea Software 3D installation CD. Just place the P-Sea WindPlot 3D install CD into the CD drive and select this menu item. An instruction box will appear like the one to the right here telling you to place the CD in, just click on *OK*.

3D ' Depth Files ' Make High Res. charts

- 1) This is done by first updating your 3D program to P-Sea WindPlot II 3D version 7.13 Beta E so the Hi-Res mode is available.
- 2) Then start the 3D program and click on “*Depth Files*” in the 3D menu bar. Select “*Make Hi-Res. Files*” from the “*Depth Files*” menu.

3) If this is the first time then you will be asked if you want to use “*Hi-Res. Mode*” or not. Choose “*Yes*” if you want to create your Hi-Res 3D files with an estimated time for completion. This may take as long as 50 hours or so and require 5 to 8 gigabytes of disk space.

You can stop the file creator at any time by clicking on the “*STOP*” button. The program will skip over the files it has already created the next time you start it. The program also checks disk space for you and will warn you if you do not have enough. It is advisable NOT to do this at sea as the hard drive will be working each time a file is saved and can possibly cause a hard drive to fail.

Once all of your files are made the use of the 3D Hi-Res mode is automatic as long as it is turned on. The mode is turned on and off by checking or un-checking the “*Hi-Resolution off*” menu item in the 3D “*Options*” > “*Display Mode*” menu. The Hi-Res charts only appear on ranges less than 7 mile plotter range or so. The message “Hi-Res” will appear in the title bar of the 3D window when these charts are in use.

For those with the P-SeaBed Builder option, you just need to check the “*Use High Resolution*” check box that appears under the “*Display Personal Depths*” check box when it is checked. The rest is basically the same as you do for making standard 3D personal files.

3D ' Depth Files ' Show 3D file Boundaries

Outlines each 3D file when plotter ranged past 500 miles. Just point and click to put the cursor where you want to zoom to and range back down.

3D ' Depth Files ' Personal and P-Sea 3D files

Displays all 3D files. See *3D File list* described earlier for details

Changing 3D window size

You can change the size of plotter and 3D windows in the 3D Split mode. Just place the mouse arrow on the left border of the 3D window (has to be the 3D window and not the plotter border) then drag it to the position you want. If you have the correct border you should see the plotter resize accordingly. The windows size will be remembered for the next time you run the 3D program.

Using the P-SeaBottom Builder Menu (Optional)

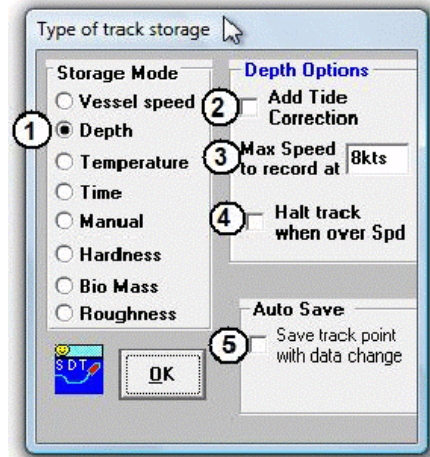
Standard 3D bottom is built in 1 degree blocks holding 1.44 million depths which are further broken down for lower ranges of 36 more blocks (Hi-Res.) each with another 1.44 million depths. When rebuilding the bottom, new/updated depth data to make the 3D block needs to be gathered. The depth data for the most part will come from tracks files that was setup for recording the depth within the track file from a depth sounder interfaced to the computer. When you first open the *P-SeaBottom Builder* it looks for tracks in the area and lists what it finds. You can also use charts and enter the chart spot depths to update 3D but it should be much more accurate to use the depth data that you accumulate from tracking. There will be places where no depth is (holes) and the computer will either use a method of interpolation which uses best guess or pull data from existing 3D files P-Sea Software provides.

Setup for automatic recording of depth in track files

The 3D depth data we need to rebuild the 3D bottom can come from an on-board depth sounder that has the following NMEA 0183 data sentences: DBT (Depth Below Transducer or DBS (Depth Below Surface). You connect the sounder via a separate serial COM port or a data combiner/multiplexer. When depth data is received by P-Sea WindPlot, the depth will be displayed with “DS” (for Depth Sounder) printed next to it just under WindPlot’s vessel speed and heading readout located in the upper-right corner of the plotter screen. Please note that if you have the 3D screen open, the depth reading will also appear at this position but it will show “3D” instead of “DS” next to it. In this case, this means that you do not have depth from the sounder and therefore it will not work for rebuilding the bottom.

Once depth data is available to P-Sea WindPlot, we need some method to store it. Since P-Sea WindPlot creates tracks pretty much automatically, it can use them to do the work. But before doing so it will help to understand how tracks are made. Tracks normally are used to follow your path over again. They are created the path by storing the vessels position (in Latitude and Longitude) at pre-determined intervals (or duration). To then re-displays the tracks, the computer just draws a line connecting the saved points (dots) together.

Besides saving Lat/Long position, tracks can also be used to store 3 other types of data at the same time. By default, vessel speed is the only data this is saved. You must tell P-Sea WindPlot that you want to save the depth data in with the track file. To do this, click on “Tracks” from the WindPlot’s menu bar and select “Current” then select “Track Type”. The “Type of track storage” window should appear as shown. Click on “Depth” to select it as the data you want to save. If it is grayed out and doesn’t change then that means you do not have the correct depth data available. Recheck your serial port connections and look to see that either the “DBS” or “DBT” is flashing in the “Adjustments”>”Chng.COM port/Time” window. You should also make sure that “Depth” is set as the “Main” track data file. To do this, click on “Tracks” in the menu bar then on “Current”. Now select “Color”. Click the “Multi-Color” button if you get the “Present Track Color” menu. Just make sure that the dot is in front of “Main” in the “Track Color Bar” window by clicking on it if it isn’t selected. Click the “Mono” color button if you want your tracks to be a solid color and exit. Then make sure again that the track mode is depth after you close these windows.



Setting Track to Store Depth Data

Setting up tracks so that they save depth data is fairly simple. First click on P-Sea WindPlot’s menu “Tracks” and select “Current” then select “Track Type”. The “Type of Track Storage” window will appear as shown.

Refer to the #() on the “Type of track storage” window shown here above.

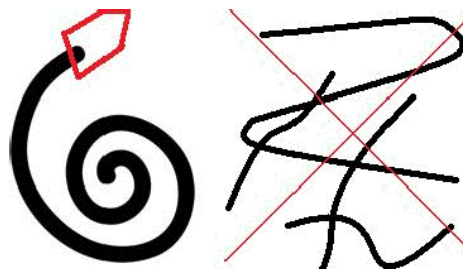
#(1) Chick this dot to select “Depth”. If you can’t select it then you do not have depth coming from your sounder to WindPlot.

- #(2) Check this box to have tide corrections added if there is a local tide station.
- #(3) If your depth sounder loses bottom at higher speeds then enter a value in this box. Enter a zero value to turn this feature off.
- #(4) Check this box to automatically stop tracking when vessel's speed over maximum.
- #(5) Check this to have data saved very time depth changes by a certain amount.

After you have the track storage set to store depth then you will need to create some tracks before you can rebuild the bottom. So go out to the grounds and circle or zig-zag over the area you want to see in 3D. Then you can build or rebuild the sea bottom.

Suggested pattern for creating a tack if you want to see detailed rock formations.

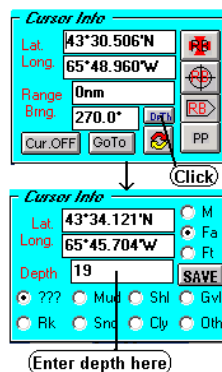
Tracks are used to store the depth data that is used to build a 3D bottom. We have a few suggestions for first-time users that we found to work the best for creating 3D. A single track made all at once the same day of an area is going to provide the truest bottom instead of many tracks crossing each other that were made over several days, weeks or months.. We believe this is because the sea-height can change from one day to the next due to tides, currents and even water temperature. We also suggest using tracks where the sea conditions are the best. Large swells can make it difficult for the program to filter the swells out making the bottom lumpier that it really is. Start a track by making a spiral pattern, starting at the center and gradually making larger circles is better than chris-cross or zig-zag pattern. We believe this is because the transducers are never really pointing straight down. Even if it is straight down, the vessel may be lipping a little one way or the other. If the beam favors one side or the other then the zig-zag pattern the beams may cross causing no data going one direction. Use time duration of 2 seconds and keep the circles close to each other, about 50 to 100 feet spacing between spiral paths should be ok, it doesn't have to be perfect.



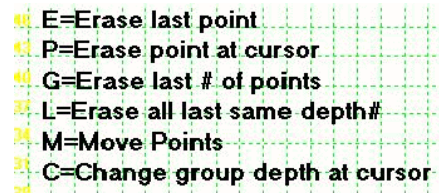
Creating “Cursor Depths”

Charts contain some depth information in the form of depth contours and individual soundings. You can create a cursor depth file that can be used by P-SeaBed Builder.

- 1) Turn on the cursor (press **F2** on the keyboard) then place it over a fathom curve or spot sounding from a chart.
- 2) Click the “*Dpth button*” and the cursor box will change as show here on the right. A message box will appear asking if you are ready? You can click on “*Yes*” and it will use the current range but if you click on “*No*” it will redraw the screen at a 1 mile range WITH a grid. This point spacing grid guide that is the spacing needed for medium 3D depth points. However there are 6 more between the grid lines that are used for the high- resolution mode.
- 3) Enter in the value of the spot sounding or fathom curve in the Depth white text box.
- 4) Set the depth unit (M=meter, Fa=Fathom and Ft=feet) by clicking on them in the Cursor Info box.
- 5) Then just click or drag the cursor by holding down the left mouse button and move the mouse along a fathom line. Keep sounding measurements fairly close together.



If you make a mistake either by putting the wrong value in for depth or just too many points down you have some editing options. When you are making “Cursor Depths” a edit guide will appear in the upper-left of the plotter screen as shown here on the right. These are keyboard short cuts for editing your Cursor Depths.



- E=Erase last point
- P=Erase point at cursor
- G=Erase last # of points
- L=Erase all last same depth#
- M=Move Points
- C=Change group depth at cursor

Press E If the last point you made was wrong then press E on the keyboard to erase it.

Press P To erase a point you made at the cursor, place the cursor (use the right mouse button to move it without making a point) on point you want to delete and click the left mouse button.

Press G To erase the last group of points you made. You will be prompted how many points to delete.

Press L To delete a number of points last made with the same depth.

Press M To move a point, press M and use the right mouse button to pan to the point to move. Then left-click on the point and move the cursor to the new location by clicking the right-mouse button and then left-click to set the point.

Press C To change a group of points with the same depth (as when you follow a depth line). Just right-click to place the cursor on the line then left-click to change them.

When finished, click the “Save” button. Use the left mouse button to pan to different areas. The files are saved in files 1x1 degree grids outlined in red/keep within these lines. To start another 1x1 degree area, save and restart with the cursor in that area. For example, take your current Latitude and add 1 degree (in the cursor info box) if you want to do the next section up or subtract 1 degree from the Longitude if you want to do a section that is East of your present position. You will see any previously made cursor data drawn red dots and depths printed.

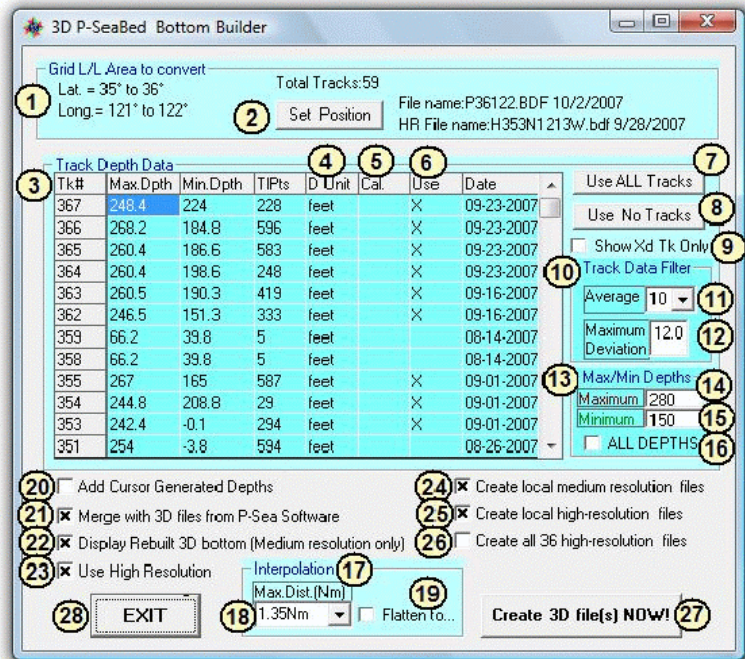
Rebuilding the bottom

It takes time to generate 3D bottom so the program will not do any tracking while the bottom is generated. For that reason we suggest to rebuild only when at dock. The hard drive will be working hard to so another reason for doing it while in port is to reduce the chance of damaging the hard drive.

This is an option that requires an activation code to start just like you did to start the 3D. Just contact your dealer to order. P-Sea Bottom Builder re-builds 3D files from track and mark files. When selected, a *Personal Bottom Builder* window will appear as shown next. It shows the Lat/Long area you will be covering with the file you create along with the total tracks it has found in the area. It allows you to set the point size or multiplier used to fill in between where data is missing. It uses track depth data to (re)build the bottom so it list a total tracks that have depth data showing the maximum and minimum depth, total points, depth units for each track plus some other options like *Use All* for using all tracks, or *Use None* for using no tracks depth data.

The P-SeaBottom Builder Window

There has been a number of improvements in the P-SeaBottom Builder window that was designed to make the rebuilding of the 3D easier to understand. Starting with the layout is more straight forward with no hidden items as before, the tracks you choose to build and the rest of the settings are saved in separate files so that the next time you go to rebuild the bottom you do not have to re-select the tracks over again. New tracks are automatically added to the list to use, the file names are displayed now, you can set a maximum and minimum depths to use, the date of the track file has been added, you have the choice to display only the tracks that were “USED” to build the



bottom displayed on the 3D window, the “Point Method” has been removed as it didn’t produce a very good 3D bottom and now you should be able to rebuild the bottom while underway. Then you can tell it to display the personal data files, merge the personal data files you create with the ones provided with the 3D program. And lastly, you can create depths using the pre-recorded cursor generated depths. All of this will be described later in this instructional.

P-SeaBottom Builder Window Layout

- (1) This area of the window shows the files that can be generated according to the current Latitude and Longitude position which can be changed by using item (2).
- (2) Click to change to a different area. Just enter in a new Lat./Long. Position
- (3) Usable track file list. Only the tracks with depth data and set to show are listed.
- (4) Click here to change the depth file unit from feet, fathoms or meters. (Does not alter #'s)
- (5) Click here to add an offset to one of the track depth data files.
- (6) Click here to place or remove an “X” from the column. When X’ed, the track will be used to help rebuild the 3D data. The program will remember which track has an X next time you rebuild.
- (7) Click this button “Use ALL Tracks” to place an “X” in all tracks “Use” column.
- (8) Click this button “Use NO Tracks” to remove all “X” in all tracks “Use” column.
- (9) Check this to limit the track 3D display to only those that have “X”s in the USE column.
- (10) Track data filter area has two types of filters; Click the drop down arrow at (11) to change the track point averaging. Adjust the amount of averaging so that the effect of the swell is reduced without losing any bottom resolution. You will need to experiment with this value, you will need more averaging at slower speeds and shorter track intervals., 10 is a good starting point. Item #(12) will reject any depths before and after a sudden change in depth. If you are not inclined to have sudden changes in depths then put a small number in item #(12). The number represents the number of feet or fathoms of change that can be allowed.

-
- (13) Maximum and Minimum allowable depths. If item #(16) is not checked, then all depths that are more than #(14) or less than #(15) will be rejected when creating 3D bottom. It is a real good idea to use this but be sure to enter the correct limits. Turn the 3D boundary lines (in the 3D Depth Files menu) ON and zoom out to 100 miles to get an idea of the depths you will be working with. Or zoom out to 12 miles if only working with the Hi-Resolution files.
 - (17) Interpolation. A funny sounding word that basically means make up something and that is what it does in between the tracks. For example, say you make a 1mile track loop, the program can look across the loop to the other side and see what the value of the depth is there. Then it fills in the missing data as it steps through all values between. So if one side is 100 ft and the other is 10 then a gradual slope is made from one side to the other. How far it will go look before it gives up is up to item #(18). However, the larger this number is the longer it will take to create the 3D bottom. Set this value to match the gap between track files. If you do not have any tracks that are close to each other then you can use item #(19) to create a side walk type of path. Usually you won't want to use this if you are merging your tracks with other data but it is nice for a long straight track run.
 - (20) Creating Cursor depths was mentioned at the beginning of this section. If you have any cursor depths then you must check this to have them added to your 3D creation.
 - (21) As mention many times, you can merge the P-Sea Software 3D data with your track or mark data when creating 3D bottom. Check this box to make the merge happen.
 - (22) When this box is not checked, your P-SeaBottom Builder created 3D depths will not appear. Only the P-Sea Data files will appear.
 - (23) Un-check this box if you only want to deal with medium resolution files.
 - (24) & (25) selects high and or low resolution files should be created when checked. Usually you will want to do both.
 - (26) There are a total of 36 high-resolution files per one medium resolution file. If (25) is checked and you check this then all 36 files will be created. This takes some time to do depending on the speed of the computer. Usually a good idea to do this at port.

Setting Position

The P-Sea SeaBed Builder will regenerate the immediate area only so before getting started rebuilding the bottom, you need to position the 3D in the area where you want to start. In the top of the Bottom Builder box you will see a button labeled *Set Position*. This is used to call up the Dead Reckoning window. In this window you can change the location of the vessel so that the bottom will be built in that area. You only need to be within the general area. In order to do this, you may need to turn the GPS or loran off that is feeding position data to the plotter.

Filling in the gaps

There is a total of 1.44 million points in each personal depth file you create making it difficult for you to cover all of the points in the file. This program will allow you make it look like you are covering more area than you actually are. This is done by filling in between points (depth readings) that you make by interpolation method. It determines the depths that are between data points using interpolation from the depth between the two points. For example, if one depth is 3 feet and the other is at 5 then the one in-between would be 4 feet. The range you set is how far away it looks for a reference point from any one sounding. If there isn't a point close enough the depth is not filled. The default is 5miles.

Using Track Depth files

All tracks with depth data are listed when you call the P-SeaBed Builder. Only the tracks with depth are used data for building your 3D files. If you wish **not** to use a certain track for any reason, then you need to remove the X in the “USE” column by clicking on it. Do not trust tracks you get from other sources as valid depth data until you have checked each individually your self. This can be done by going to the area where the tracks are and place the cursor along the tracks. You will get a depth value in the description that pops up in the lower-middle of the plotter screen. Use the charts to verify that the data is close. Figure the difference from the chart and use the “CAL” box when building the depth file to offset the track to match the chart. Also change the “Depth Unit” so it is correct by clicking on that column and change to either Meters, Feet or Fathoms.

Tk#	Max.Dpth	Min.Dpth	TIPts	D Unit	Cal.	Use
684	32.2	4.7	288	Fathom		X

Click to change depth unit Enter any calibration Only tracks with a X in this column will be used. Click to set.

The **Track Data Filter** button allows you to filter out differences in track data due to swells and bad data where the bottom may have been lost from wakes of other boats. Click the “Track Data Filter” button to make the Filter window appear and disappear. Use the “AVERAGE” to compensate for swells. The value will depend greatly on the plotting interval that was used when making the tracks. Short intervals will want a higher average where long intervals will want lower numbers. We suggest to start with 3 to 5 if your not sure and see how it looks. You will see more bumps on the bottom if you do not have enough averaging. The “MAXIMUM DEVIATION” is in METERS. The SeaBed Builder will discard any track point where the difference in depth between two points is greater than the value in this box. So if you enter 10 for example, when the SeaBed Builder looks at say point 12 with a depth of 100 meters and if point 11 is 99 meters and point 13 is 98 meters then point 12 will be rejected because the difference is 11 and 12 both of which are higher than 10 that is in the *Max.Dev.* Box. . So the value of this will depend on the bottom where the tracks are. Jagged bottoms will want a higher number so as not to reject the peaks and drop off’s and a smooth bottom can be a small value. Suggest using 10 for smooth and 100 for a jagged bottom to start with.

Creating Personal 3D depth files

- 1) First thing is to maneuver the vessel within the one degree Lat/Long area of the tracks to convert. Use the “Dead Reckoning” (Shift-F4) to enter the area manually, just make sure the GPS is off.
- 2) Now call the 3D P-SeaBed Bottom Builder, click on *Options* then select “P-SeaBed Builder” and the “Personal Bottom Builder” window will appear. The total tracks that have depth data will list in the list showing the maximum and minimum depth, total points, depth units for each track. The program will reject any depth that is zero so if you see zero points in the “TIPts” (total points) column then this is not a valid depth file.
- 3) If there is already data available from P-Sea Software that you are updating then check the “MERGE OTHER DATA IF AVAILABLE.”
- 4) If you have make any depths using the plotters cursor box then check the “USE CURSOR GENERATED DEPTHS”.
- 5) Select the tracks you want to include in the build by clicking on the *USE* column to mark it with an X as shown here on the right.
- 6) Make sure the *D Unit* column is correct depth unit for each track that you are including.

Tk#	Max.Dpth	Min.Dpth	TIPts	D Unit	Cal.	Use
684	32.2	4.7	288	Fathom		X

Click to change depth unit Enter any calibration Only tracks with a X in this column will be used. Click to set.

- 7) Make sure “*Use Personal Depths*” checkbox is checked. If not then check it. When doing so you will notice another checkbox appear just below it labeled “Use High Resolution”. If you check this then only the one high-resolution file locate were the vessel is currently at will be generated. **If it is unchecked**, then the program will make the larger 1 degree block file and ask if you want **all of the 36 high-res. file made at the same time as well.**
- 8) Click on “*Flatten to*” check box in the “*INTERPOLATION*” part of the builder and click the down button to select a distance This takes each known point and draws a line to the next closest point if not more than the MAXIMUM DISTANCE you have set and figures what the depth should be by interpolation. So the higher you set the “*Max. Dist.*” value the longer it will take to make the interpolation.
- 9) Click the “*CREATE 3D FILE*” button and wait for the program to build the bottom. You should see a red box indicating what the program is currently doing. The 3D screen should redraw after all done with the newly generated 3D bottom. If all you see is flat bottom you many have to pan to where the tracks and depths are to see any 3D.

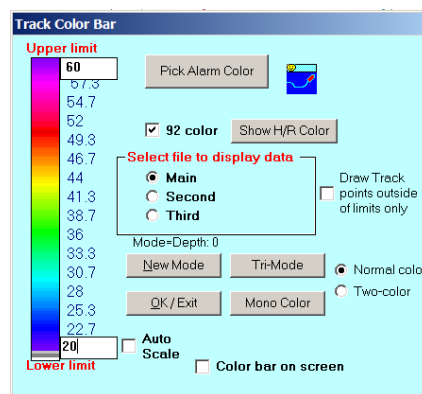
The “*Use ALL Tracks*” button puts an *X* in all *Use* columns automatically. The “*Use No Tracks*” button clears all *X*'s from the “*USE*” column. The “*Display Personal Depths*” check box will cause the program to display only the 3D files you create. The “*Merge other data if available*” check box will add the regional 3D data from P-Sea Software Co. with the 3D personal data. The personal data will overwrite the P-Sea Software data allowing you to modify the P-Sea Software 3D data files.

Note: the “*Display Personal Depths:* check box must be UNCHECKED if you want to display P-Sea Software 3D data files.

Cleaning up Track files

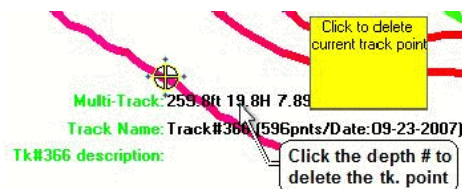
If you find that your depth sounder will loose the bottom occasionally from crossing over your wake or for what ever reason you will need to clean up the track files before you re-build the 3D bottom. Otherwise, you will see holes or peaks on the 3D that are not really there. If you are not sure, then go ahead and use the bottom builder to rebuild the sea bottom. It will then be obvious when you view the 3D where the errors are as you will see peaks or holes in the sea bottom. You can use the cursor to pan to these areas, set the present position (with GPS off) by clicking the “*PP*” button on the cursor info box.

To clean up these errors you must first set up the track display so that you can see them in the areas that you are rebuilding the bottom (if you have not already done so). Fist set up your track to display in multi-color mode (press F3) and set the color limits to match the maximum and minimum depths of your tracks. Press F3 the and click the “*Multi-Color Mode*” button if on Mono Track Colors and you should get the window as shown here on the right. First, you should have the “*Main*” selected as the “*Select file to display data*”. If the current track mode for the “*Main*” file isn't on “*Depth*” as indicated just above the “*New Mode*” button then click the “*New Mode*” button and set it to depth (The “*Main*” track is



recommended to always be “Depth” for making 3D bottom but isn’t necessary.) Check the “92 color” check box if it isn’t already checked and Now enter the maximum depth in the white box at the top of the color bar. Any part of the track that has depth’s outside of the limits you set will now show up in black.

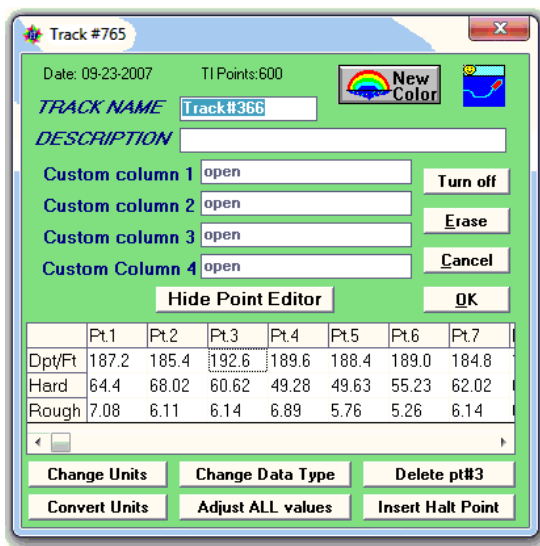
Now that you have your track display properly setup, clear the plotter screen and then turn on the cursor. Pan around in the area of the depth file you want to generate. Areas of tracks will be black in color when they are out of the color limits and may need to be deleted if they are suppose to be between the limits you set. The ones you want to delete are usually between good sections of the track. Deleting a point is permanent so **BEFORE YOU DELETE ANY POINTS ALWAYS DO A BACKUP OF YOUR TRACKS**. Check the “Draw Track Points outside the limits only” will only draw the portions of the tracks that have depths outside of the limits you set on the “Multi-Track Color” window. Use this to find bad track points in the middle of a large group of tracks.



To **delete a track point**, place your cursor over the black points and watch the readout that appears near the bottom of the plotter screen like the one shown here on the right. If the depth it is reporting is suspected as bad then delete the point by clicking on the readout. If you click the line below that had the track name and date you can enter an upper and lower range of points to delete.

Using the Track Point Editor

There is another way to edit track points were you can see the actual data for each track point. The track points can be viewed and changed using the *Track Description Editor*. To call this window just turn on the cursor and place it over the track you want to edit. It a few seconds or so the track name and description will appear in the lower-middle part of the screen. Click on the words “Track Name” to call the track description editor. At the bottom of this window is a button labeled “Edit Track Points”. Click this button and the track points for all three data types will be displayed. Use the scroll bar at the bottom of this list to view all of the track points. Look for the obvious errors in data like zeros or negative numbers. When you find one then click on it. Six new buttons will appear that allow you to modify the data in the track.



“Delete Pt.#” is clicked to get rid of the value get rid of a wrong track value.

If you know the file should be fathoms and it lists it as feet then click the “Change Units” button to change it back to fathoms.

If the track was set a depth record but lists it as speed then click on the “Speed” and click the “**Change Data Type**” to select it as feet, fathoms or meters.

Click “**Convert Units**” if you want to change a track from feet to fathoms, note that you will have to click the “**Change Units**” to make the name change to match the data.

Click the “**Adjust ALL values**” button to add or subtract the same amount from each data field.

Click the “**Inset Halt Point**” to add a halt point that will put a line break in the track file.

When finished editing the track just click on *OK* or *Cancel*, either will close the editor and save the changes made. NOTE: Cancel in this case does not keep bring back the changes you made as they are saved at the same time you edited them because you are working directly with the track file.

A

Problems and Solutions

During installation

Symptom	Cure
What program should I install?	You can load either WindPlot II or WindPlot MAX (if you have the 32 bit code) If you are not sure what one you want then look at the box it came in and install that program it says. If it didn't come in a box then most likely you need to install a WindView program, either WindView Max or II will work in that case. If you got the 3D option then you need to make sure your selection includes the 3D on it. Those that do not have the 32 bit code either has to purchase the 32 bit upgrade or install the older version 6.77. Note that keys numbered less than 3000 did not retain the 32 bit code so you will need to call and get it from P-Sea software if you do not have it written down somewhere.
I inset the install CD but nothing happens	Take a look at MY COMPUTER (COMPUTER on Windows 7 and Vista) and right-click on the CD drive. Then choose either <i>Auto Play</i> , <i>Open</i> or <i>Install or run program from your media</i> .
Installation went ok but the program asks for a Navionics key to be inserted or it asks for the P-Sea key.	Make sure your CD is new enough. If it is several years old then download it from www.p-sea.com or order an update from your P-Sea Software Dealer. If

Symptom

Cure

I get the error message: *Please close all applications and restart setup again.*

the CD is new then try running the *Update Key driver* program on the WindPlot install CD.

During installation it halts and displays the error message: *File already in use* or *File could not be extracted.* .

Windows has either one or more programs running that is interfering with the installation, such as an automated program for navigation that automatically loads when Windows first starts up. In this case, find all minus signs that appear in the program boxes (except program manager) and click on them. A menu should appear with either *Exit* or *Close* as one of the selections. Click on each *Exit* or *Close*, then try running the WindPlot setup again. **It could also be a bad set of disks.**

During installation it stops and displays the message: *Can't find file or file missing.* Or any other message other than stated before that stops the installation.

Click on *Ignore* or *OK* and continue with the installation. A couple of these messages are usually ok. If after installing and running the program you find that is not working properly, then it may be necessary just reboot the computer and try reinstalling the program again.

At the end of the installation you get a USB driver error message.

The program disk has a bad file. Most likely it was damaged during shipment. Call P-Sea Software Co. (805) 772-4396 and request a new disk.

This message comes up for no reason, just ignore it and finish the install.

While running the program

The mouse menus are acting erratic and jumps around by itself.

New computers can see the GPS data coming in as a mouse. You can unplug or turn off the GPS **then** start windows.

A permanent cure requires you to disable the mouse drive the computer assigns to the serial port. While the computer is acting up unplug the serial port to calm the computer. Right-click *My Computer* and click on properties then select the *Hardware* tab and click the *Device Manager* button. Now find the + in front of *MS Serial Mouse* or find any place a list a *MS*

Symptom

Cure

Program already running message happens when trying to start WindPlot.

Serial Mouse. Do not mess with the PS-2 mouse or you will have real trouble. Now right click the mouse and select *Properties*. Click the down arrow at the bottom of the page and select *Disable*. Now you should not have any more problems.

Nothing happens but a message box appears which displays:

P-Sea WindPlot is already running and you just need to get windows to switch back to it. Find the WindPlot icon on the task bar and click it. Or, find the **Alt** key and hold it down. Then press and let go of the **Tab** key but do not let go of the **Alt** key. Keep pressing the **Tab** key until you see the WindPlot icon and let go of both keys.

WindPlot Starting in XX seconds.

The program requires either a 25 pin KEY or a USB style key to run, make sure it is plugged in. If it is then you may need to reinstall the key drivers. If your software CD is several years old then either download a new install with the key drivers or order a new install CD from your P-Sea Software Dealer.

To check for key driver:

- 1) Key driver not installed? Click on START then select PROGRAMS. Find and select the P-Sea WindPlot group and select P-SEA KeyDriver SETUP. Click on the INSTALL KEY DRIVER. Use the CHECK KEY STATUS button to verify that the version 4.65 or better is installed. If not, get a new installation CD.

If you have a 25 pin key get a new computer most likely it won't have a 25 pin port and port adaptors will not work for this. You need to order a key exchange for a new USB style key from your P-Sea software dealer.

Won't accept my code number or I forgot my number.

You can call P-Sea Software Co. and give them your key number or call your local dealer. He can insert a code that will pull up your number from your program.

Symptom

BSB or P-Sea Bathy. charts are not positioned right or chart colors do not look right.

Raster Bathy. charts show two different sizes when zooming in.

Items on the plotter screen appear smaller than what is pictured in the manual and the program does not respond properly to the mouse.

When I turn on my raster chart the land turns black, or I don't see any chart at all!

or

I click on a chart number and get *Image Not Loaded in Control.*

Cure

Usually this happens with new computers. Quit the program and right-click anywhere on a blank area of the desktop. Select *Properties* from the bottom of the menu. Then select the *Settings* tab and choose a different color pallet or screen resolution. If this still does not work, make sure you have your Windows installation disk and click the *Advance Properties* button. Now click the *Change* button then click the *Have Disk* button. Place the Windows CD in and instruct where to find the display driver file. Then click on apply. The computer should restart and you may still need to setup the color and resolution for proper chart display.

P-Sea Bathy. charts are "Tiled". A single Bathy. chart is usually divided up into eight parts and WindPlot attempts to quilt these pieces back together. When on the edge of a chart the program sometimes misses on the size and can't piece it together properly when zooming. It is suggest when doing this to turn off the *Center Vessel best* when zooming on Bathy. charts or use the arrow keys to redraw the screen when you see it happen.

This program was designed to work with a screen resolution of 640 x 480 and you are probably in a resolution greater than this. Right-click on a blank area of the computer desktop and choose properties or open display settings. Click on the Settings tab and change the screen resolution to lowest setting.

Press **Ctrl-N** and turn on the raster buttons if they are not already on and exit the menu. Wave the mouse arrow over the raster buttons in the lower left of the screen. Place the scroll bar in the middle of the shader box (or click reset) when it appear and back off of mouse arrow. The screen will redraw with the chart showing. If it still does not show try setting the screen colors higher as stated in the cure above. You need at least 64k colors before charts will work. If still black then you probably need an update. Contact either your dealer you got the program from or P-Sea Software.

Symptom

I purchased P-Sea vector charts, but I don't see them!

I loaded the P-Sea vector charts but they didn't appear the next time I ran the program.

My P-Sea vector charts are loaded and the charts say they are on, but I still do not see them.

The P-Sea vector chart turns the entire screen the color of land most of the time.

I do not see the detail I was expecting in the P-Sea vector charts I purchased.

Cure

You have to install them yourself. Get the program running and click on *Data*, next click on *Charts*, then follow the instructions. Once they are properly installed (into you hard drive), they will automatically load each time the program is restarted. You only have to install charts once, use the *About* function in the *Data* menu to verify what charts you have installed. Press **Ctrl-V** and make sure they are turned on.

You must exit the program properly in order for your computer to remember any changes you make. Turn the charts back on and exit the program through the *Data* menu. To turn charts on, click on *Window* in the plotter menu bar, next click on *Charts/Cartography*, then click on *Vector*, then click the *Turn on* button. The vessel must be positioned in the vicinity of the chart. Use the Dead Reckoning feature to reset the vessel's present position in the vicinity of the chart you want to display. You may also use the cursor to view a chart. Turn on the cursor by clicking the cursor button in the upper left above the range button. Then click on the area you want to zoom to in the mini chart box in the lower right. (Use the range button to turn on the mini chart window if it is not showing.)

The program will sometimes color the entire screen the color of land, especially when it reaches the end of the chart. Just tapping on an arrow key will make it redraw properly. If you find it does it frequently then change the land border to *Wide*. To do this click on *Adjustments* in the plotter menu bar and next click on *Wide Vector Border*. You can also try different border colors.

Our charts do not contain any more detail than the original paper charts from which they were taken. A chart with a scale of around 1:400,000 does not show some reefs, rocks, buoys, etc. that are known. A chart of this scale cannot possibly show everything and still be readable. Some users *mistakenly* expect to see everything that can be seen from the boat on the chart

Symptom

Cure

I hooked up the serial cable, but I do not get a position update. (The computer is not responding to the GPS).

(as if it were a picture.) To obtain more detail, order a chart with a scale less than 1:100,000. Naturally the smaller scale charts will not cover as large an area.

First, check to make sure your NAV. device is outputting NMEA0183. The program must have GLL or GGA for position. Check that this information is getting to the computer by clicking on the plotter menu bar item *Adjustments*, then on *Change COM Port/Time*. You should see some kind of sentences flowing in any one of the green data INPUT viewers when WindPlot is receiving data. If you still do not get a position report, then try clicking the *Reset* button in the lower left of the screen below the *Activities* bar. If still not getting data then recheck your cable connections. To check the computer's serial port, find a 9 pin serial mouse, turn the computer off and unplug the regular mouse then plug the 9-pin mouse in the serial port. If the serial port is ok, Windows will find the serial mouse when you start up the computer. If it doesn't, take the mouse and the computer to the computer store and tell them to get it working with the serial mouse. See chapter 3, section 5, *Check the System* for more suggestions to help get you going.

I get my position for a while, but then I suddenly lose it and the computer locks up!

If you have a modem (which looks like a phone jack on the back of your computer) remove it, as it might be interfering with the plotter's serial cable. If you need the modem, then change its interrupt so that it is not the same as the serial port for the plotter input.

System hangs on ranges 50nm or greater

Press the **Alt**, **Del**, and **Ctrl** keys all at the same time to stop the WindPlot program. Then restart it and before you switch to the fifty-mile range, click on *Window* then on *Charts/Cartography* then on *Vector* to get the vector menu. Now click on *Regional Map > 50* to uncheck it. There should not be any trouble going higher than 50nm now.

System hangs with an hourglass as soon as I enter my security code.

Turn off GPS and all other devices connected to your computer. Then reboot the computer and restart the program. Check the *Safe Mode* box in the box where

Symptom

Cure

Can't get BSB CD loaded.

Place the BSB

The BSB chart CD does not need to be loaded. All you need to do is instruct the plotter program where to find the CD charts. You do this through the *Window ' Charts/Cartography ' Raster* menu. Click the *NOS* and then the *Directory* button. Your CD should now be blinking for a few minutes while it reads the CD's directory. You should see a list of charts when it is through. When you click the *Exit* you will automatically be taken to the local chart with the best scale. Use **F4** to select a different chart scale or range.

Installed the American Pioneer code and the 3 additional choices appear but they are grayed and can't be chosen.

The choices will remain grayed until the program receives data from the AP fishfinder. The AP fishfinder must have the NMEA183 EPROM update and interfaced through a Noland Multiplexer in order to get the data. You will also be getting the depth readout under the Speed and Heading display when properly connected.

I have to keep recalibrating the same area when using TD's.

Press **Ctrl-G** to check your distance to calibration point. It will be in nautical miles. Make sure you are not too close to another point. If you are re-calibrate that point instead of making a new one. If you are too far then make sure you make a new one before calibrating. Use the *Show Points* to see you don't have too many around and then try deleting them if you still can't get it to stay calibrated and then add a new point.

Keep getting *Poor Nav. Signal* message on the plotter screen.

This is a message that comes from your GPS and is not due to a communications problem in the computer. You need to see why you are losing signal in you NAV device. Try cleaning the GPS antenna with a mild detergent like dish soap.

Have WindPlot tied into the Autopilot but it still will not drive it.

The output from WindPlot is only intended to drive another plotter, radar or fishfinder. We do not feel it is safe to use WindPlot's output for autopilots.

I halted my tracking but it drew a line anyway when I started tracking again

If you do not want the program to draw a line between halts then go to the *Track Search and Edit* and uncheck the *Continuous Tracking* check box located below the search text box.

After running for several hours the menus start acting funny and/or the chart picture doesn't look right

If you are running WindPlot on a Vista or Windows 7 computer then try the auto-rest. Restart comp. so you can work it, start WindPlot, click on the *Adjustments* menu and select *Chg.COM ports/Time*. Now click the *Auto Reset* check box and enter a time to reset Windows Explorer.

Appendix

B

Undocumented Features

In order to keep P-Sea WindPlot one of the most advanced programs of its kind, we are continuously updating it by adding new features. It is not practical to change the Users' Manual with every update and we direct you to the extensive on-line help provided by the program itself. In addition, this Appendix B will provide some information about the latest features.

Appendix
C

P-Sea Charts (raster vs. vector)

In order to understand the vector-based charts P-Sea WindPlot and their advantages (and disadvantages) as compared to optically scanned charts, it is useful to know *how* they are made.

Vector charts are produced by taking the Latitude and Longitude of a series of closely spaced dots from a NOAA (National Oceanographic and Atmospheric Administration) chart. These dots are then connected together to form a contour of land or the 10-fathom line, or whatever features there were on the NOAA chart. This is done on a computerized positioning pad. The following figures illustrate the process.

Figure 1 shows a portion of a NOAA paper chart that is to be digitized. The chart is laid over a computerized positioning pad and the contours are saved as a series of points with Latitude and Longitude. See

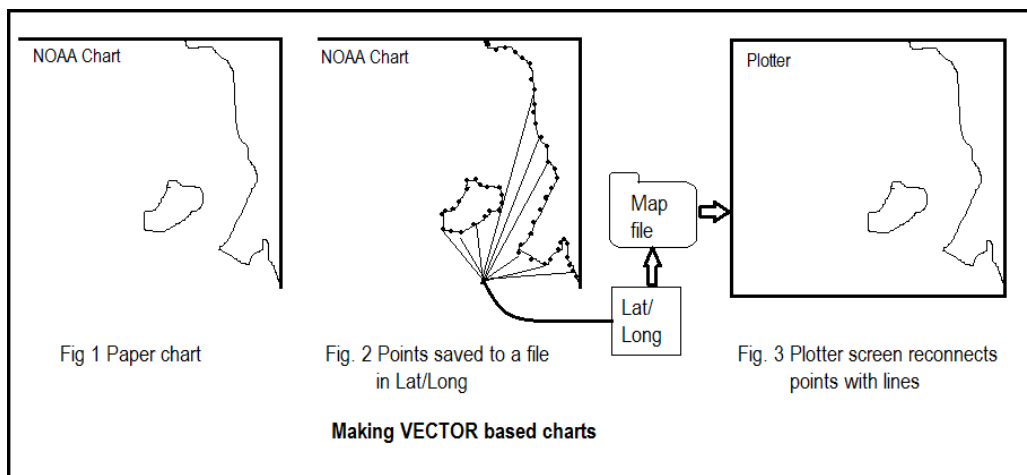


Figure 2. These points are stored in sequence and the plotter reads them as a contour by connecting the points with a line in the order that they were recorded. See Figure 3. Note that only the lines connecting the points are shown on the screen when you use these charts, not the points themselves. Other items like buoys, towers, bridges are digitized as well making the vector chart consist of many different layers.

Most of the time, it is not possible to see any difference between the paper chart and the plotter screen if the scale for the plotter is similar to the scale of the chart. However, a vector-based chart permit the scale to be lowered beyond the normal scale of the chart is was copied from, thus magnifying or zooming in on a small section. This magnifies the errors. As you continue to magnify, the smooth flowing lines making up the land contours begin to look jagged as you begin to see the individual lines connecting the points.

Obviously, the charts are not sufficiently accurate for navigation at this magnification. On charts of really large scale such as 1:400,000, ***small islands may get lost in the accumulation of errors! Using a highly magnified large-scale chart for navigation is dangerous.***

If you obtain a chart with a very small scale, the errors are reduced. In no case will the vector-based charts contain more detailed information than the NOAA chart from which they were copied. It is best to use charts made from NOAA charts with a 1:50,000 to a 1:150,000 scale, which they refer to as coastal charts. To obtain a free catalog of NOAA charts, call the National Ocean Service at (301) 436-6990 or download them from the internet, just Google FREE BSB charts.

By now you may be wondering, "***Why use vector-based charts?***" They should not be used for navigation, particularly if magnified. As a matter of fact, International Law requires that you use paper charts for navigation. Even the optically scanned charts are not to be used for navigation.

- % To start with, unlike optically scanned raster charts that contain very large quantities of data and thus require a massive storage device such as a CD ROM, vector charts require less than 500k per chart in most cases for faster loading.
- % Secondly, some optically scanned charts cannot be magnified by zooming in on an area like vector charts can. If they can be zoomed, you may end up with charts that look like large boxes. Therefore, you have to buy all the charts you need for your area if you are to match the versatility of the vector-based charts that can be magnified.
- % It takes time to move the large amounts of memory that a raster chart requires and thus slows down the redrawing process especially when zooming out. Vector charts do not require much memory and draw much quicker. However, the gap is narrowing as computers get faster and vector charts add more data slowing them down.
- % Vector-based charts can be changed to record such events as the alteration of terrain caused by storms, the movement of buoys or changes in the light list by the Coast Guard, the installation or removal of oil rigs, or other hazards to navigation. A program is available for less than a hundred dollars that will allow you to change the vector charts yourselves.
- % If you use optically scanned charts, you will find the computer switching ranges and screens as you move from one chart area to the next. This is usually not true for the vector-based charts because they are based on a seamless design. If you buy or make every vector-based chart in your area, all charts are merged into one. When you operate the program you will see one continuous chart and you will not have to change chart disks as you move from one chart to the next.

Appendix C

% Raster charts contain ALL chart data that is available whereas vector charts are limited, depending on the manufacture of the charts. Data such as depth reading, warnings and other important data are usually stripped off when the vector chart is made.

Vector-based charts are usually the charts of choice for most fishing operations.

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