
exploring

COASTAL EXPLORER

Your guide to installing and using Coastal Explorer

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WARNINGS: Use Coastal Explorer at your own risk. Be sure to carefully read and understand the user's manual and practice operation prior to actual use.

Coastal Explorer depends on information from the Global Position System (GPS) and digital charts, both of which may contain errors. Navigators should be aware that GPS-derived positions are often of higher accuracy than the positions of charted data. Rose Point Navigation Systems, LLC does not warrant the accuracy of any information presented by Coastal Explorer.

Coastal Explorer is intended to be used as a supplementary aid to navigation and must not be considered a replacement for official government charts, notices to mariners, tide and current tables, and/or other reference materials. The captain of a vessel is ultimately responsible for its safe navigation and the prudent mariner does not rely on any single source of information.

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Welcome to Coastal Explorer

Thank you for choosing Coastal Explorer!

If you are new to navigation software, but use a computer for anything else, you will find that Coastal Explorer works just like many other Windows applications: you create documents, edit them, save them, print them, etc. The big difference is that Coastal Explorer's documents contain navigation objects such as routes and waypoints rather than paragraphs or spread-sheet cells.

If you already use another navigation program this might seem strange at first as most other systems keep all of your navigation objects in a single database rather than in document files. We expect that you will quickly come to appreciate the benefits of using documents as you can more easily organize, backup, and even e-mail your routes and other objects using familiar Windows commands.

Coastal Explorer includes many other features that make it seem more like other Windows applications than most navigation systems do. These features include the familiar clipboard operations Cut, Copy, and Paste, multi-level Undo and Redo commands, and a Find command.

While we have tried to make Coastal Explorer as easy to use as possible, we have not skimped on the features! Coastal Explorer is a very powerful planning and navigation tool. Here are just some of the powerful features you will soon be using:

- Quilted vector and raster charts, photo charts, and topographic maps
- Fast and easy panning and zooming
- Split-screen chart viewing
- Instant access to the information contained in your charts and guide books
- Unlimited routes and waypoints
- Route checking and obstacle alerts
- Virtual Instrument displays
- Autopilot control
- Full-screen Cruising Mode

- Chart Portfolio Management
- Tide and current predictions

How to Use This Book

This book was designed to get you started using Coastal Explorer and give you an overview of its capabilities. We've left out many details on how to use the program in order to make this a book you can just read cover to cover. Step-by-step details may be found in Coastal Explorer's help system.

Here are some terms and conventions we used in making this book.

Click means to press and release a mouse button. If we don't say otherwise, then we mean the left-most button.

Right-Click means to press and release the right-most mouse button. This is a common operation to access popup menus.

Drag means to press and hold the mouse button while moving the mouse and releasing the button when you are done. Dragging is usually done with the left-most button.

We use a shortcut convention to point out where you can find commands. Rather than saying "Click on the Tools menu, then the Options command, then the Instruments tab, and then the Troubleshooter button," we will say "Select the **Tools > Options > Instruments > Troubleshooter** command."

System Requirements

The minimum system requirements to use Coastal Explorer are:

- PC running Microsoft Windows 2000, Microsoft Windows XP, or a newer compatible operating system.
- 128MB of Memory; 512MB or more is recommended.
- 50MB Available Hard Drive Space; 500MB for a Full Installation and more for charts.
- Video display with at least 800x600 pixel resolution and 16-bit color (Thousands of Colors); 1024x768 or higher with 24-bit color (Millions of Colors) is recommended.
- Mouse or other pointing device; a scroll-wheel is recommended.

Some features require:

- NMEA 0183 compatible GPS with suitable PC interface
- NMEA 0183 compatible autopilot with suitable PC interface
- Other NMEA 0183 compatible equipment

Installing Coastal Explorer

When you insert the Coastal Explorer program CD into your disc drive the setup program should run automatically. If the AutoRun feature is disabled on your CD-ROM drive you will need to open the disc and run the **Setup** program found there.

The setup program will guide you through the installation process. Several features are optional and the setup program will allow you to choose which ones you want to install. The optional features include:

High-Resolution World Base Map – Coastal Explorer includes a “background” map of the world’s coastlines that helps you keep your bearings when viewing an area where you do not have chart coverage. The world map is always available, but this option will make it appear less “chunky” when viewed at larger scales. Turn this option off if you need the disc space (it uses about 100MB).

Gazetteer – The gazetteer lists millions of places in the United States, Canada, and Mexico. You can quickly and easily search for any of these places if you install the appropriate lists. During setup, you can decide whether or not to include each US state, Canada, and Mexico. The size of each list is shown in the setup program.

Coast Pilot – The Coast Pilot information is stored in several separate “books” organized by area. You can install all of the books or just the ones with the information you might use. Each book needs 1-2MB.

Installing or Removing Optional Features

If you decline to install some options at setup time, but decide later that you’d like to have them, simply run the setup program again. You can also remove options that have been installed but are no longer needed.

Getting Program Updates

Coastal Explorer has a built-in, semi-automatic update mechanism to help ensure you are always using the latest and greatest version.

When you use Coastal Explorer on a computer that is connected to the Internet, it will automatically try to download the latest update. The next time you start Coastal Explorer after an automatic download you will be asked if you want to install the update.

You can also get Coastal Explorer to start your dial-up Internet connection, or just force a check and update at any time by using the **Help > Check for Updates** command.

If you need to update a computer that does not have access to the Internet, you can download an update file onto a floppy disk, flash memory key, or other portable storage device from our website at **<http://rosepointnav.com/Updates/>**.

Installing Charts

Because your chart portfolio is likely to change as you maintain it and explore new areas, installing charts is usually done separately from installing the Coastal Explorer program. (The charts included on the Coastal Explorer CD-ROM must be installed with the Setup program, however.)

For the most part, installing charts is automatic. Each time Coastal Explorer is started, it scans certain folders on your computer for charts. As chart files are added to or removed from these folders, Coastal Explorer updates your chart portfolio automatically.

When Coastal Explorer is installed the list of folders to scan will already contain a few common places for chart files to exist, so if you already have some compatible charts they may work right away. You can change the list of folders that are scanned with the **Tools > Options > Charts > Chart Folders** command.

If you have some charts that are not appearing, you can add the folders that contain them to the list and Coastal Explorer will be able to find them. You can also have Coastal Explorer scan your entire computer for chart files and fill in the list for you.

When a CD-ROM containing charts is inserted into your computer, Coastal Explorer will be able to use those charts too. Charts on CD-ROM will display slower than charts on hard drives. The first time a chart CD-ROM is seen by Coastal Explorer you will be asked if you would like the charts to be copied to a hard drive to improve their performance.

If you say Yes, Coastal Explorer will guide you through the installation of the charts. You can install the charts later by using the **Install Charts** command on the toolbar in the Chart Portfolio, or the **Tools > Options > Charts > Install Charts** command.

The Coastal Explorer CD-ROM contains over 400 official NOAA vector charts, over 40 official US Army Corps of Engineers Inland Navigation charts, and nearly 100 raster planning charts courtesy of Maptech. (These charts must be installed with the Setup program and cannot be used without first copying them to a hard drive.)

Both NOAA and the US Army Corps of Engineers maintain websites with the latest versions of their charts. These charts may be downloaded free of charge and are updated frequently. Each of their

websites lets you see all of their charts, select which ones you want, and download them as one big Compressed Folder (ZIP file).

Coastal Explorer provides a shortcut to the NOAA and USACE websites with the **Tools > Download Charts** command.

The easiest way to install new vector charts that you have downloaded is to save them to the folder "**My Documents\My Downloaded Charts.**" Any charts that are downloaded to this folder will be automatically installed by Coastal Explorer.

You can also save the chart ZIP files to a portable storage device to be taken you a computer that does not have Internet access. To install these charts, simply open the ZIP file with Coastal Explorer using the **File > Open** command.

Configuring Your GPS and Other Instruments

Many electronic marine devices have a feature known as "NMEA 0183". This is an electrical interface that allows different pieces of equipment to share data with each other. This shared data is made up of "sentences" which essentially say things like "the GPS is at 47.123N 122.321W", "the depth is 23 meters", and "the boat is moving at 13 knots through water".

NMEA Interfaces and Multiplexers

In order for Coastal Explorer to take advantage of your NMEA 0183 compatible instruments, your PC must be connected to them. Two different kinds of devices are available that provide an interface between NMEA 0183 and a PC's serial port (such as COM1 or COM2) or a USB port.

One of these devices is usually called an "NMEA Adapter" and allows a single NMEA 0183 device (usually a GPS) to be connected to the PC. The other type is called an "NMEA Multiplexer" and allows more than one NMEA 0183 device to be connected to a single serial port. The multiplexer is more complicated on the inside because it needs to merge the sentences from more than one source without mixing them up, but the way you hook them up is basically the same as an adapter.

Some GPS devices have the ability to connect directly to a PC's serial port or USB port without the need for an adapter or multiplexer.

General Setup Steps

Every piece of equipment is different, so you will have to consult your equipment's documentation to find out how to get it connected to your PC, but the general process is:

1. **Wire it up** — connect the NMEA output from the device to the input of an adaptor or multiplexer and connect the serial port of the adaptor or multiplexer to the serial port of the PC. Your adaptor or multiplexer should have come with instructions specific to its installation.

2. **Enable NMEA Output** — some devices may need to have the output of NMEA sentences enabled; refer to the device's documentation.
3. **Configure the COM Port** – use the **Tools > Options > Instruments** command to select one or more COM ports to monitor for NMEA 0183 sentences.

In case of problems, Coastal Explorer provides you with some tools to help troubleshoot your instrument configuration. These tools are accessed with the **Tools > Options > Instruments > Troubleshooter** command. The Troubleshooter will show you the data being received from your instruments in several different ways and even point out some common problems if your configuration has them.

Starting Coastal Explorer

Once you've installed Coastal Explorer, you can find it on the Windows **Start** menu in the **All Programs** list. The setup program will also offer to create an icon on your desktop for you.

You can also start Coastal Explorer by opening a navigation object document such as one in your **My Documents** folder or one sent to you as an e-mail attachment. Just double-click on the document's icon and Coastal Explorer will start up and load that document.

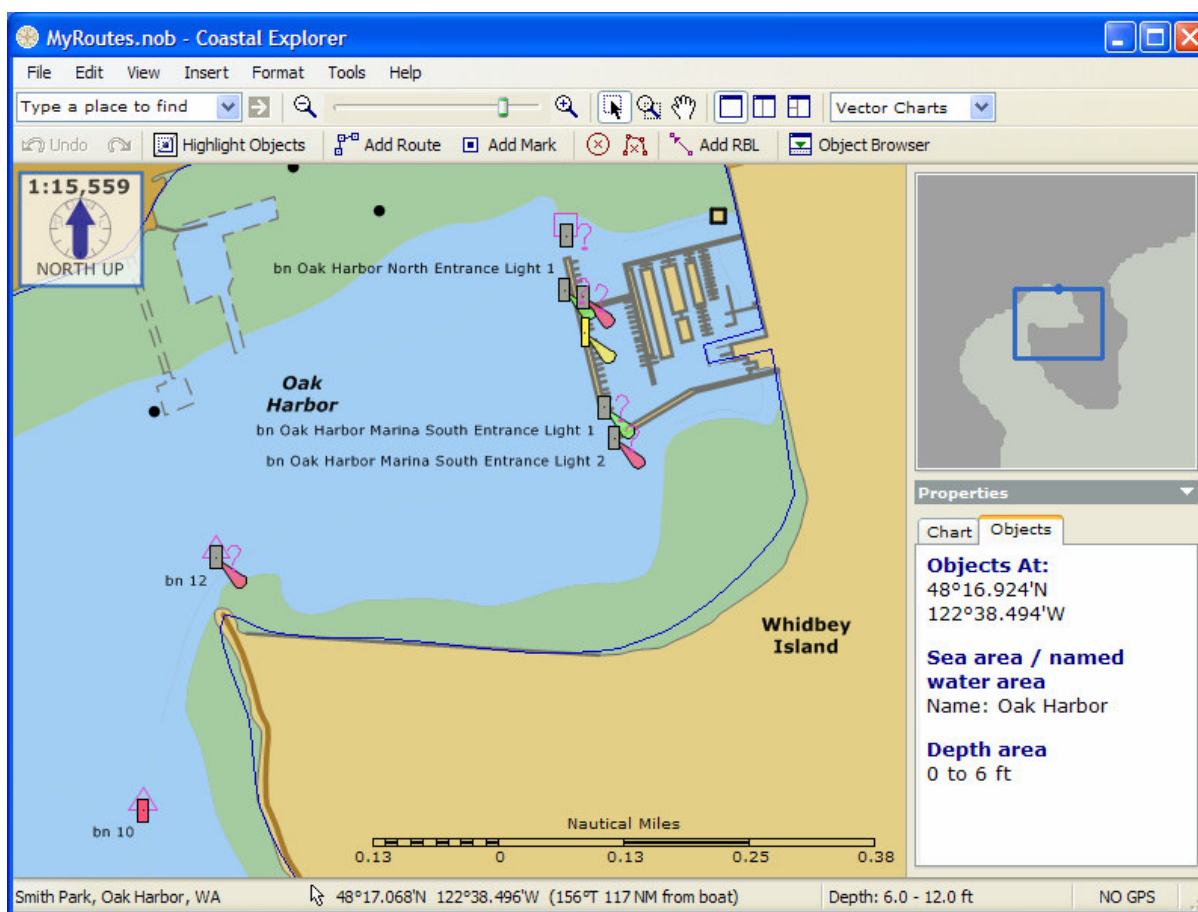
When Coastal Explorer starts up, it will offer to install any updates that were downloaded during a previous session. If anything in your chart folders has changed, the chart portfolio will be updated next. After that the last navigation object document that you were using is opened (unless you started Coastal Explorer by opening a different document).

Coastal Explorer always starts in what we call Planning Mode. This is where you will find most of the tools you would use to plan a trip. Coastal Explorer has a different mode for cruising which we call Cruise Mode. The two different modes make it easier to find the tools you need for each of these activities. You'll find more details about these modes later in this booklet.

Planning Mode

Planning Mode is the “normal” mode of operation for Coastal Explorer. This is where you can easily pan around and zoom in and out on the chart, create routes, marks, boundaries, and other navigation objects, find places by name, and generally access all of the planning features of Coastal Explorer.

While in planning mode, Coastal Explorer will look like a normal Windows application and can work along side other Windows applications. Coastal Explorer has a title bar, menu bar, a couple of toolbars, a work area (the chart), a Task Pane, and a status bar.



The title bar lets you know you are using Coastal Explorer and also tells you the name of the document you have open.

The commands on the top toolbar are mostly for manipulating the view of the chart and include a tool for finding places on the chart, zooming the chart, selecting a mouse mode (what the mouse does when you drag it on the chart), splitting the chart, and selecting what type or types of charts to show.

The commands on the bottom toolbar are mostly for manipulating navigation objects and include undo and redo commands, a unique Highlight Objects command which will make your work stand out better against the chart, commands for adding new objects, and a command to hide or show the Object Browser which provides a tabular view of your navigation objects.

The status bar mostly shows information about what your mouse cursor is pointing at. If you've installed the optional gazetteer, the name of the nearest place is shown. You will also see the latitude and longitude of the point under the cursor, and if your boat's position is known, the bearing and distance from your boat to the cursor. When you are using vector charts, the depth range of the area at the cursor is also shown. Finally, the status of your GPS is indicated.

Task Panes are a relatively new thing in Windows but are appearing in more and more applications. They are the panels that appear on one side of the work area to provide easy access to common tasks and can usually be switched between several different groups of tasks.

Coastal Explorer's Task Pane can be used to see or adjust the properties of the selected chart or navigation object, check for obstacles along a route being worked on, view information from the Coast Pilot, or select from various places after a search results in more than one place.

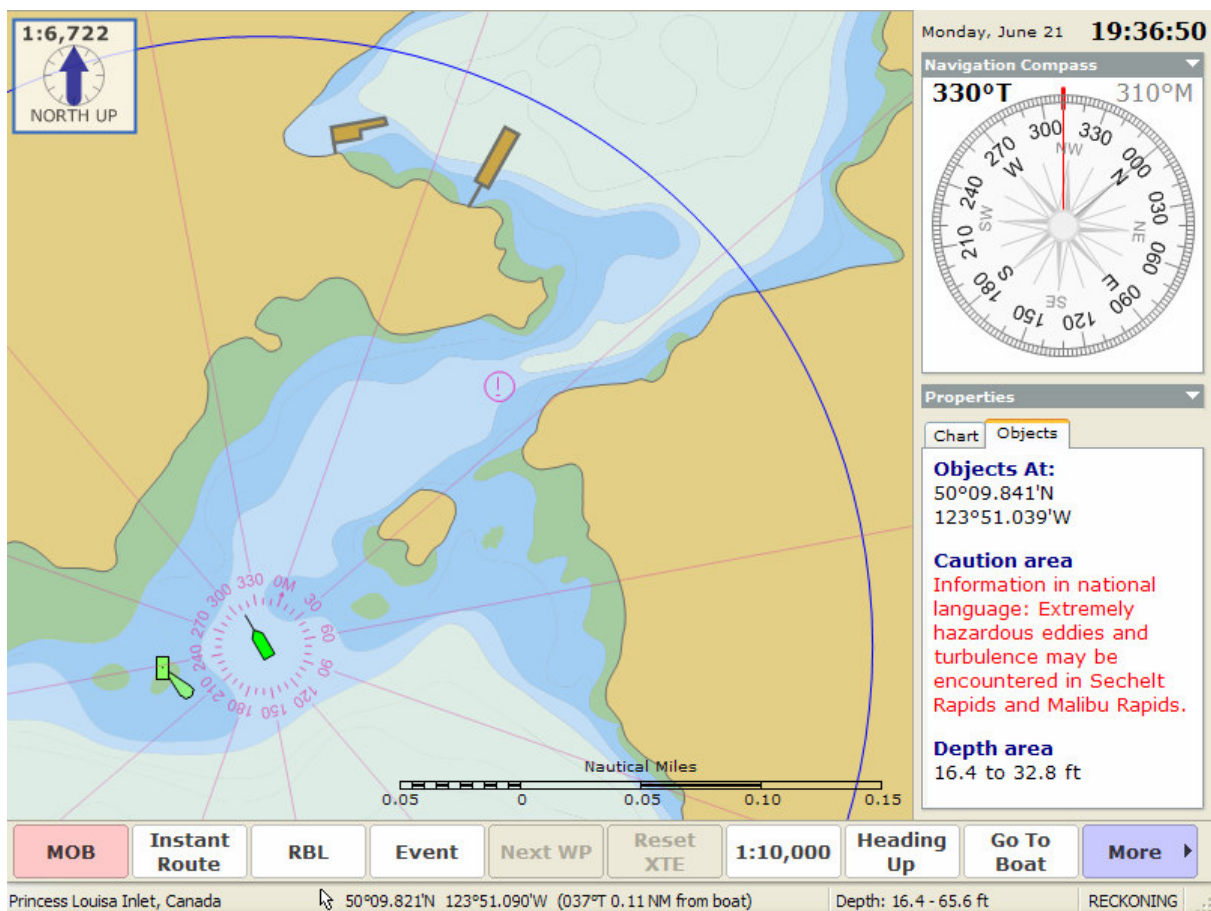
Coastal Explorer will automatically select the appropriate Task Pane in certain circumstances, but you can always select one yourself by clicking on the title of the Task Pane and choosing it from the popup menu.

Above the Task Pane is the Chart Overview. This panel shows you an overview of the area seen in the main chart display. The overview is always oriented North-Up and has a blue box in it to indicate the position and orientation of the main chart display. You can drag this box around to pan the main chart display.

Cruise Mode

The standard Windows interface works great when you are sitting at the computer using your mouse and keyboard and are focused on the task of planning your trip. However, when you are cruising and you are focused on the water ahead of you and the other boats in the area, menus and toolbar buttons become much more difficult to use! This is the problem that Cruise Mode solves.

In Cruise Mode, Coastal Explorer takes over the entire screen and hides the menu and toolbars. In order to provide easy access to the commands you'll need while underway a few large, easy to press buttons appear at the bottom of the screen.



Cruise Mode starts automatically when your boat starts moving 1 knot or faster. It may be entered at any time by using the **Tools > Cruise Mode** command or by pressing the **F12** key. You can get back to Planning Mode with the **Planning Mode** command on the Function Bar or by pressing the **F12** key again.

The Cruise Mode display includes Virtual Instrument panels which you may customize. These panels relay information gathered from your NMEA-0183 compatible instruments or information about your route and the progress you are making. You can choose from analog or digital style instruments and some values may be graphed over time (such as depth and water temperature).

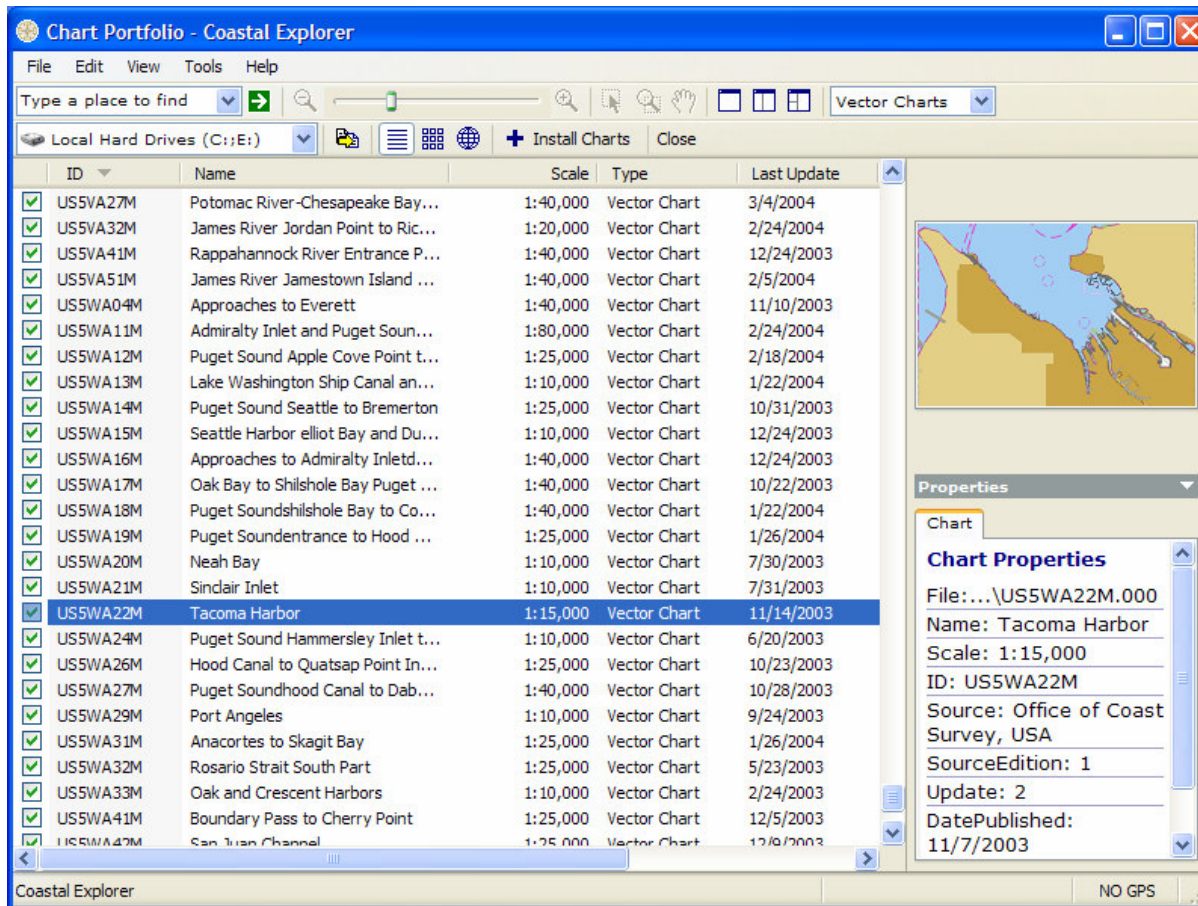
To customize the Virtual Instrument display, click on the title of a Virtual Instrument and select a new instrument from the popup list, or select one of the commands to add or remove panels.

The **Data Console** panel may be further customized to include exactly the information you want to see. The actual information that is available depends on the real instruments you have connected to your computer, but the panel can show ground and water speeds, depth, water temperature, your position, course over ground, cross track error, GPS status, heading, and rudder angle. To select the data you want to see, right-click on the Data Console and check off your selections.

The Chart Portfolio

The Chart Portfolio is yet another mode focused on a particular activity which, in this case, is managing your chart portfolio.

You can get to the Chart Portfolio with the **Tools > Chart Portfolio** command. You can get back out with the same command or with the **Close** command on the Chart Portfolio's toolbar.



The Chart Portfolio shows you all of the charts on a particular hard drive, CD-ROM drive, removable storage device, or the combination of all of your hard drives if you have more than one. You can select which collection you want to see with a drive list on the toolbar.

You can also decide whether you want to see all chart types or only a particular type of chart. This works just it does in Planning Mode; just use the Chart Type selection tool.

The list of charts may be seen as a detailed list in tabular form, a grid of thumbnail images of chart, or outlines drawn on a world map. You

can select how to view the chart list with buttons on the Chart Portfolio's toolbar.

Select a chart by clicking on it or by using the arrow keys to select charts near the one already selected. You can select more than one chart at a time by holding down the **Ctrl** key while clicking on the additional charts you want to select.

Selecting a chart from the list will display details about that chart in the Properties Panel. Double-clicking on a chart returns to Planning Mode with the view centered on the area covered by that chart. Right-clicking on a chart will display a menu of operations you can perform on the chart.

Using the Chart Viewer

In both Planning and Cruising mode, most of the Coastal Explorer Window is used to show the chart and the way you use the chart is exactly the same in each mode.

The chart may be scrolled around and zoomed in and out to show to show different areas. These are very common operations, so Coastal Explorer provides a few ways to perform them.

You can scroll around with the **Arrow Keys**; just press the arrow pointing in the direction you'd like to scroll; holding down the Shift key while pressing an arrow key will scroll farther. You can scroll with the mouse by moving the cursor to the edge of the chart where it will turn into a fat arrow; pressing the left-mouse button will scroll in the direction of the arrow. You can also drag the box inside the Chart Overview panel to scroll the chart around, and if you are using a three-button mouse or a mouse with a scroll-wheel, you can press and hold the middle button (or wheel) to drag the chart around as well.

To zoom in and out with the keyboard, press either of the **+** or **-** keys. With the mouse, use the slider on the toolbar or the scroll-wheel if you have one. You can also select a specific scale to view the chart at by clicking on the North Arrow shown in the upper-left corner of the chart viewer. This will show a panel that will let you select a scale or change the chart orientation and auto-scrolling mode.

While your boat is moving, you can tell Coastal Explorer to automatically scroll the chart. Several "Auto Scroll" mode are available including "Follow Boat" which keeps your boat near the center of the chart, "Look Ahead" which keeps your boat near the edge of the chart to maximize the amount of chart you see ahead of you, and "Follow Leg-Line" which keeps the current leg of the active route on the screen by automatically scrolling and zooming the chart viewer.

In the upper-left corner of the chart, you will see a box that indicates the scale of the chart and the direction of North. You can click on the box to gain access to various settings for the chart view including the scale, which way should be up, and how to auto-scroll.

Sometimes this box will have a small yellow warning icon in it which indicates that something on the screen shouldn't be trusted. Usually this means that one or more of the charts on the screen is "over-zoomed" and may appear to be more detailed than it really is.

WARNING: Zooming in on a chart past its scale is like using a magnifying glass on a paper chart; it might seem “bigger,” but you aren’t seeing any more detail. With raster charts, the problem is fairly obvious as lines start to get thick and symbols get large, but vector charts don’t scale the same way and can cause a false sense of detail which can be dangerous! When the over-zoom indicator appears, make sure you are not relying on detail that is not really there!

When the chart is automatically scrolling and you want to look somewhere else on the chart, you can use any of the normal scrolling methods to temporarily suspend automatic scrolling. When you want to get back to the boat and resume auto-scrolling, just press the **Home** key (or the **Go To Boat** button on the Function Bar in Cruise Mode).

The **Page Up** and **Page Down** keys will scroll the chart by almost a screen-full in the direction of your boat’s heading (**Page Up**) or in the opposite direction (**Page Down**). These keys (and the **Home** key) can be very handy while you are cruising and want to quickly check something ahead of you on the chart.

The types of charts to display can be selected with the Chart Type Selector on the toolbar, by right-clicking on a chart and selecting a type from the **Chart Types** options, or by pressing the **V**, **R**, or **P** keys which will select Vector, Raster, or Photo charts respectively. You can select a combination of chart types with the keyboard by holding down the **Shift** key while pressing **V**, **R**, or **P**; this will add or remove the chart type from the current display.

What you see in the chart viewer is usually a “quilt” made up of several charts. Sometimes the charts will overlap in such a way that a chart you don’t really want to see is covering up something that you do want to see. If this happens, you can right-click on the chart you’d rather not see and select it from the **Charts Here** list to temporarily remove it from the quilt.

The chart viewer can be split into two or three separate panels. The toolbar includes buttons to select one or two panels, and you can use the **1**, **2**, or **3** keys to select one, two, or three panels. When the chart viewer is split, the arrow keys, zooming keys, and the toolbar scale and chart type selection tools will only affect the larger chart panel on the right. To control the other chart panels, use the right-mouse button or click on the North arrow in the appropriate panel.

Using Navigation Objects

Coastal Explorer lets you create several types of objects on the chart, including routes, marks, boundaries, and range/bearing lines. These are collectively called Navigation Objects and are described in detail in Help.

You can create a new navigation object by selecting the type you want from the **Insert** menu. The most common types can also be created by clicking the appropriate button on the toolbar.

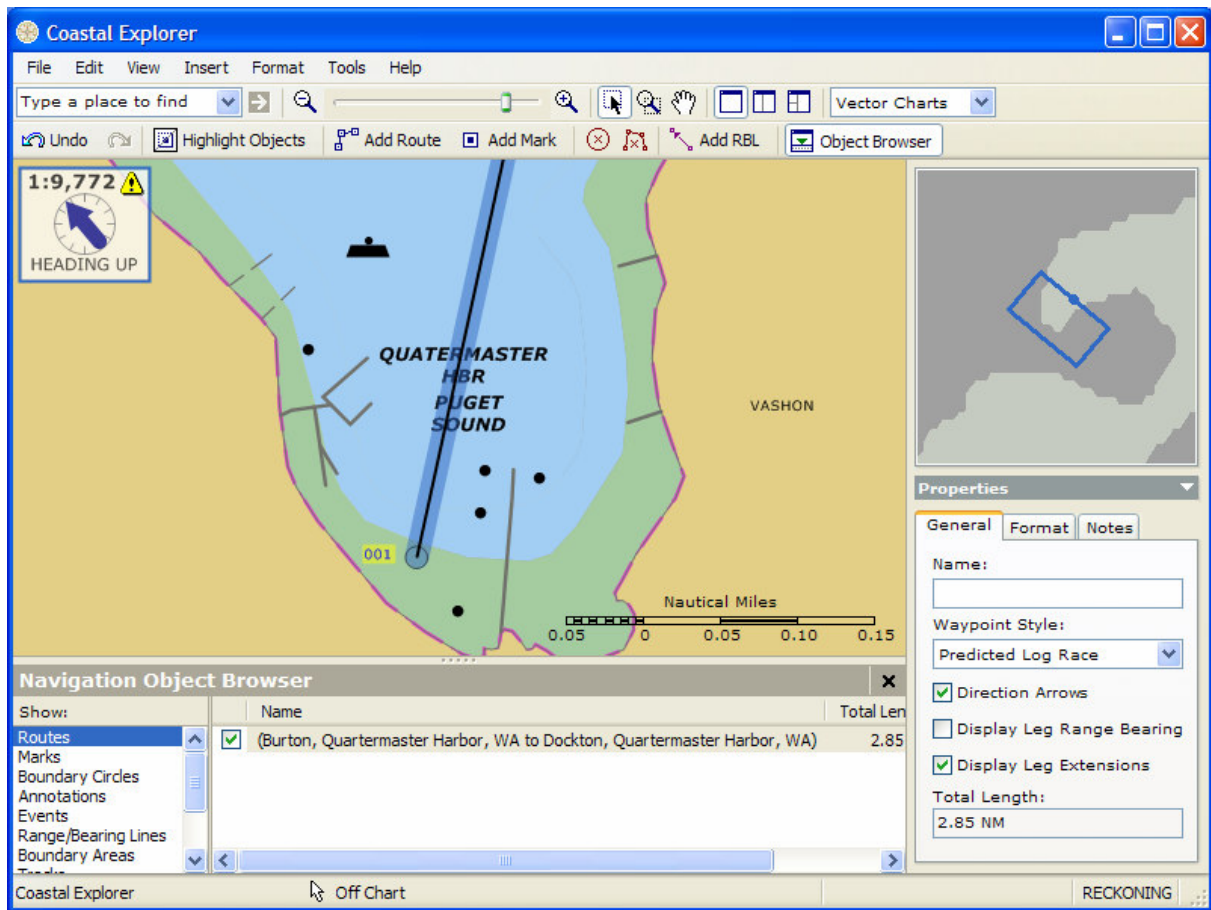
After using an Insert command, you should click on the chart where you want the object to appear. For routes and boundary areas, click at each waypoint or corner that you want a waypoint or marker, and when you are done, click twice in the same spot. For a range/bearing line you will click once at the start of the line and once at the end.

After inserting an object, you can move it around by dragging it with the mouse (routes can't be dragged around, but their waypoints can).

Each type of object has various properties that can be seen and adjusted in the Properties panel that always appears on the right side of the Coastal Explorer window. The Help system has all the details about each of these properties.

Right-clicking on any object will display a menu of operations and options for that object. These menus are how you get quite a lot done in Coastal Explorer, including adding waypoints to routes, reversing routes, activating a particular waypoint to go to, or locking an object in place.

While your Navigation Objects typically show up on the chart, Coastal Explorer includes another way to look at them called the Navigation Object Browser which you can access via the Tools menu or the Toolbar. The Navigation Object Browser appears below the chart and shows you a list of whatever type of navigation object you choose.



You can adjust the size of the Navigation Object Browser by dragging the light gray area between it and the chart.

Selecting an object in the Navigation Object Browser will cause the chart to scroll to show that object, and vice versa.

Each object in the browser has a check box that you can use to hide or show the object.

Using Navigation Object Documents

Coastal Explorer keeps all of your Navigation Objects such as routes, marks, range/bearing lines, and boundaries in Navigation Object Documents. You can keep all of your objects in one document, or organize them into separate documents however you like.

Documents are used just like in most other applications; you create a new one with **File > New**, open one with **File > Open**, and save it with **File > Save** or **File > Save As**.

Documents are normally kept in the folder called "**My Documents**" but you can save them wherever you like.

You can open a document by starting Coastal Explorer and using the **File > Open** command or pick a recently used file from the list near the bottom of the **File** menu.

You can also use the Windows to open the folder containing a document and double-click on it to cause Coastal Explorer to start up (if necessary) and open the document.

Documents may be sent as e-mail attachments by using the **File > Send To > Mail Recipient** command, or by using your e-mail program to add the document as an attachment to a message. If you receive a document as an e-mail attachment, you can just open it from your e-mail message window too.

The **File > Send To** menu also lists all of the portable storage devices on your computer. These are things like floppy drives and USB Flash Drives. You can select one of these commands to save a copy of the currently open document on that device so it can be archived or taken to another computer.

If you need to move or copy objects from one document to another, you can use the normal clipboard commands (**Edit > Cut**, **Edit > Copy**, and **Edit > Paste**) or you can use the **File > Export** command to save part of a document to a file and then use the **Insert > Navigation Object File** command to insert that file into another document.

Using the **Insert > Navigation Object File** command, you can also import routes, waypoints, and other navigation objects from files created by other navigation programs such as those from Nobeltec and Maptech.

Planning a Route

One of the primary things Coastal Explorer is used for is planning a route and many tools are provided to help you do just that.

To begin, scroll the chart to the area your route will start and zoom in to see any required details; usually between 1:20,000 and 1:5,000 is good.

Next use the **Insert > Route** menu command or the **Add Route** toolbar button then click on the chart where your route will start and your first waypoint will appear.

Move the mouse towards the next waypoint. As you move, you will see a dotted line between the last waypoint and the cursor. This line is the current leg of the route that you are creating. If it turns red, Coastal Explorer is warning you about some obstacle or hazard along the line. More details will appear in the Route Obstacles Task Pane on the right side of the screen.

You will also see dashed magenta lines extending forward along that leg line as well as abeam (at right angles to) that line. These magenta lines are handy for lining your waypoints up with landmarks.

Once you are happy with the leg-line, click to add another waypoint. Repeat this process until your route is complete, and click again on the last waypoint.

Coastal Explorer points out some of the obstacles along your route as you create it, and you can check a route later by using the **Check Route for Obstacles** command on the route's right-click menu.

WARNING: Coastal Explorer cannot point out every obstacle or hazard that you might come across, so this feature must not be relied upon to guarantee a safe route, but it can make planning one a lot easier!

If you are cruising in unfamiliar waters, you should also check the Coast Pilot for more information about the area. To access this information, right-click on the chart near the area in question, and select an entry from the **Coast Pilot** menu. (If the Coast Pilot menu does not appear, then no information is available near that area, or the appropriate Coast Pilot book is not installed.)

WARNING: The Coast Pilot information displayed in Coastal Explorer can provide you with valuable information, but it is not automatically updated to the latest Notices to Mariners and must not be relied upon for safe navigation!

If your route is in an area that is affected by strong currents or tides that may leave you on the ground, you can use the Coastal Explorer Tides program to get predictions for the time you plan on cruising there. These predictions are also accessed by right-clicking on the chart near the area in question.

WARNING: The tide and current graphs displayed by the Coastal Explorer Tides program are predictions based on unverified data from many different sources and must not be relied upon for safe navigation!

Following a Route

Once you've planned and checked a route and are ready to start cruising you should first "Activate" the route you intend to follow. You can do this by right-clicking on the route and selecting the **Activate Route** command, or by selecting the **Tools > Activate Route** command and selecting the route you want from the list that appears.

When a route is active it will change color (to green by default) and all other routes will turn gray. One of the waypoints of the route will also become active and you will see a dashed line between your boat and the active waypoint. If the waypoint is on-screen, it will have a pulsating circle around it.

When a route is first activated, Coastal Explorer will check to see if your boat has already passed some of the waypoints and will try to activate the next waypoint along the route.

When your boat arrives at (or passes) a waypoint, Coastal Explorer will automatically activate the next waypoint in the active route. Your boat is considered to have arrived at a waypoint if it gets within a certain distance of it; this distance is known as the "Arrival Circle Radius" and is one of the properties of a waypoint. Your boat is considered to have passed a waypoint if it crosses an imaginary line through the waypoint that bisects the angle between the leg leading up to the waypoint and the leg leading away from it. The arrival circle and the "pass" line are shown for each waypoint on the screen.

WARNING: If you have Coastal Explorer control an autopilot, we recommend you set the autopilot to a mode where it must be manually advanced to the next waypoint!

You can activate a different waypoint manually at any time by right-clicking on the waypoint you want and selecting **Activate Waypoint** from the menu. You can also skip to the next waypoint in a route with the **W** key (or the **Next WP** button in Cruise Mode). The **Shift+W** key will select the previous waypoint in a route.

While a route is active, a panel will appear on the screen below the chart. This panel indicates the name of the active waypoint (and displays its Note if it has one). It also shows some useful data about your movement towards the waypoint. This data includes:

RNG The distance (range) between your boat and the waypoint

- BRG** The bearing from your boat to the waypoint
- SOG** Your current Speed Over Ground
- VMG** Your current Velocity Made Good (this is how fast you are moving towards the waypoint which will be less than your SOG if you are not heading directly towards it)
- COG** Your current Course Over Ground (this is the direction your boat is actually moving)
- XTE** The distance between your boat and the leg-line you planned to be on (Cross Track Error) and the direction to steer to get back on that line (L or R)
- TTG** How long it will take to get to the next waypoint and the last waypoint (Time To Go)
- ETA** What time you will arrive (at the current rate) at the next waypoint and the last waypoint (Estimated Time of Arrival)

Your Cross Track Error (XTE) is an important thing to monitor as it indicates how far off course you are. Coastal Explorer has an alarm that you can use to indicate when your XTE exceeds a preset distance. Use the **Tools > Options > Alerts** command to adjust the "XTE over" parameter to whatever makes you feel comfortable.

Sometimes you may find it necessary to go off course and you may decide to stay that way. For example, you might need to steer clear of another vessel and end up with a clear run to the next waypoint. If such a maneuver leaves you far enough off course that the alarm is sounding, but you are certain you just want to go from where you are straight to the active waypoint, you can use the **Reset XTE** button in Cruise Mode (or press the **X** key). This will adjust the current leg-line to be from your current position to the active waypoint effectively resetting your cross track error to 0.

Besides the cross track error alert, Coastal Explorer can warn you of various other conditions such as arriving at a waypoint, a depth below or above a value of your choosing, or a charted obstacle or warning area that you are getting close to. All of these alerts may be adjusted using the **Tools > Options > Alerts** command.

As you are cruising Coastal Explorer can record a track of where you actually go. You can start a new track with the **Tools > Start New Track** command. Tracks are just another type of Navigation Object, so you can select them by clicking on them, see and change their

properties in the Property Panel, and right-click on them to perform various operations such as deleting them or converting them to routes.

Tracks are made up of a series of points and each point is added to a track as you move according to some rules you can adjust in the Property Panel. These rules let you decide when a point will be added based on an amount of time passing since the last point, a distance from the last point, a change in heading since the last point, or a combination of these.

Getting More Information

Most of the details about how to use Coastal Explorer are in its help system. This allows you to have access to the information you need when and where you need it even if you leave this manual behind. It also allows us to keep the documentation up to date as changes are made to the program.

To access the help system, use the commands on the **Help** menu or press the **F1** key at any time. The **F1** key will work anywhere in the program, even if you are in a dialog box. In fact, when you press the **F1** key, Coastal Explorer will try to display the information most relevant to where you are in the program.

Like most programs, Coastal Explorer has a large number of commands that may be accessed with shortcut keys. A complete list of these keys is available in the help system and may be found by selecting **Help > Keyboard Shortcuts**. These keys are also listed at the back of this booklet.

If you run into a “bug” in Coastal Explorer, use the **Help > Check for Updates** command to make sure you are using the latest version. If you are, let us know about the problem and we’ll try to get it fixed right away!

Even more information and downloadable extras may be found on the Coastal Explorer User Network website at **<http://coastalexplorer.net/>**.

Finally, if you need to contact us for technical support, please send e-mail to **support@rosepointnav.com** or call us at **(425) 765-2976** (Mon-Fri except holidays, 10am-4pm Pacific Time).

Keyboard Shortcut Quick Reference

Ctrl+N	Create a New Navigation Object Document
Ctrl+O	Open an existing Navigation Object Document
Ctrl+S	Save the currently open Navigation Object Document
Ctrl+P	Print
Del	Delete
Ctrl+X	Cut
Ctrl+C	Copy
Ctrl+V	Paste
Ctrl+Z	Undo the last editing action
Ctrl+Y	Redo the last editing action
Arrow Keys	Pan the chart view
Shift+Arrow Keys	Pan the chart view faster
Page Up	Pan the chart towards the vessel's heading (or course in Course Up mode)
Page Down	Pan the chart away from the vessel's heading (or course in Course Up mode)
Ctrl+Right	Rotate the chart view clockwise
Ctrl+Left	Rotate the chart view counter-clockwise
+	Zoom the chart view In
-	Zoom the chart view Out
U	Cycle the "Up Mode" between North, Course, and Heading
Home	Center the chart view on the boat

B	Cycle the "Bearing Display Mode" between True and Magnetic
Tab	Select the next Navigation Object
Shift+Tab	Select the previous Navigation Object
Enter	Activate the property window when a Navigation Object is selected
Esc	Hide the chart tip, or cancel the operation that is in progress
F1	Get help
F2	Edit the name of the selected Navigation Object
F4	Man Over-Board
F5	Add event mark at boat location
F7	Add a new mark at the next click
F8	Start adding a new route
F9	Set a bookmark at the current viewing area
F10	Go to the bookmark set with F9
F12	Switch between Planning and Cruising modes
Ctrl+D or Alt+D	Activate the find box on the toolbar
Ctrl+F	Find
F3	Find Next
Shift+F3	Find Previous

V	Display only vector charts
Shift+V	Turn the display of vector charts on or off
R	Display only raster charts
Shift+R	Turn the display of raster charts on or off
P	Display only photo charts
Shift+P	Turn the display of photo charts on or off
1	Show one chart view
2	Show two chart views
3	Show three chart views
T	Show tide and/or current prediction
W	Skip the active waypoint and activate the next one from the active route
X	Reset the Cross Track Error
Ctrl+Shift+Up	Speed the boat simulator up
Ctrl+Shift+Down	Slow the boat simulator down
Ctrl+Shift+Left	Turn the boat simulator to port
Ctrl+Shift+Right	Turn the boat simulator to starboard

The following keys require two key presses, Ctrl+Q followed by another key. The second key must be pressed less than one second after Ctrl+Q. These key combinations are intended to be used with programmable keypads and provide direct access to modes that are normally set by cycling through various options.

Ctrl+Q C	Select Course Up mode
Ctrl+Q N	Select North Up mode

Ctrl+Q H	Select Heading Up mode
Ctrl+Q F	Select Follow Boat mode
Ctrl+Q A	Select Look Ahead mode
Ctrl+Q D	Select Don't Follow mode
Ctrl+Q S	Select the Selection Mouse Tool
Ctrl+Q Z	Select the Zoom Mouse Tool
Ctrl+Q P	Select the Pan Mouse Tool
Ctrl+Q M	Display Magnetic Bearings
Ctrl+Q T	Display True Bearings