

*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 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.

The information in this manual is subject to change without notice.

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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 features that make it seem more like other Windows applications than most navigation systems. 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 customizable Cruising Mode

- Chart Portfolio Management
- Tide and tidal current predictions
- Weather forecasts
- Optional Radar display and chart overlay
- Optional Sonar or Fish Finder display

## ***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 instructions and many other 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.

**Hover** means to point at something with the mouse and then stop moving the mouse for a few seconds.

**Press and Hold** means to press and hold the mouse button for a few seconds without moving the mouse. This 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 Main Menu, then the Options command, then the Measurements tab, and then the Distances box," we will simply say "Select **Main Menu > Options > Measurements > Distances.**"

## ***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 booklet 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 **Main Menu > Help and Product Support** 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. Many toolbars and dialog boxes also have buttons that will display the help window.

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 **Main Menu > Help and Product Support > Keyboard Shortcuts**. These keys are also listed at the back of this booklet.

## ***Product Support***

If you run into a “bug” in Coastal Explorer, use the **Sync** command or check our website 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!

More information, a user forum, and downloadable extras may be found on the Coastal Explorer Network website at **<http://coastalexplorer.net/>**.

Finally, if you need to contact us for technical support, please send e-mail to **[support@rosepointnav.com](mailto:support@rosepointnav.com)** or call us at **425-605-0985** (Mon-Fri except holidays, 7am-5pm Pacific Time).

## ***Providing Feedback***

You may use the **Main Menu > Help and Product Support > Send Feedback** command to provide feedback about Coastal Explorer to Rose Point Navigation Systems. If you are not connected to the Internet, your feedback will be stored on your computer until you are connected.

While we do keep and review all feedback messages, we will not always respond. Please do not send feedback if you are in need of assistance, but contact our support department instead.

# Installing Coastal Explorer

## *System Requirements*

The minimum system requirements to use Coastal Explorer are:

- A PC running Microsoft Windows XP, Microsoft Windows Vista, Microsoft Windows 7, Microsoft Windows 8, or a newer compatible operating system.
- 2GB or more memory 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 pixel resolution 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 or NMEA 2000 compatible GPS with suitable PC interface
- NMEA 0183 or NMEA 2000 compatible autopilot with suitable PC interface
- Other NMEA 0183 or NMEA 2000 compatible equipment
- Internet access

## *Installing the Software*

When you insert the Coastal Explorer Program Disc into your disc drive the setup program should run automatically. If the AutoRun feature is disabled on your 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.

After setup completes, be sure to activate Coastal Explorer on your computer. You will either need Internet access, or the ability to call someone with Internet access, in order to complete product activation.



## 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, use **Main Menu > Licensing and Add-Ons**. In that window you can add or remove optional modules and even shop for new add-on modules, many of which are free.

## Additional Drivers

Be sure to install any drivers that might be necessary for your hardware configuration. In particular, USB Serial Adapters and USB GPS Receivers require that drivers be installed before those devices can be used. We recommend that you check the manufacturer's website for updated drivers rather than simply using drivers that might come on a CD-ROM with a device. Most manufacturers have much newer and (usually) better drivers available on their websites.

## *Removing Coastal Explorer from Your Computer*

Use the **Add/Remove Programs** option in the **Windows Control Panel** to uninstall Coastal Explorer. Uninstalling Coastal Explorer will remove the software, world base map, gazetteer, guide books, weather files, and other files that can be restored by running setup again. Your charts and navigation object documents are not removed by the uninstall program.

## *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. Coastal Explorer will display a message when an update has been downloaded and give you the option of installing it.

You can also get Coastal Explorer to check for updates at any time by using the **Sync** command.

If you need to update a computer that does not have access to the Internet, you can download an update file onto a USB flash drive or other portable storage device from our website at <http://coastalexplorer.net/> in the support area.

# 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 open the last navigation object document that you were using (unless you started Coastal Explorer by opening a different document).

## *Operating Modes*

Coastal Explorer was primarily designed to help you do two things: plan a voyage and navigate that plan. These two activities can require different tools, so Coastal Explorer has two modes: **Planning Mode** and **Cruise Mode**.

In Planning Mode, Coastal Explorer looks and works much like any other Windows application. It provides tools for creating Routes and other Navigation Objects, getting information from Charts and Guide Books, and finding places in the Gazetteer.

In Cruise Mode, Coastal Explorer takes over most of the screen in order to give you more chart viewing area. Commands are made available via larger toolbars that are easier to use while underway and provide quick access to the functions you need most. Cruise Mode also provides several features that let you customize the screen for different activities or needs.

# Installing Charts

The US Charts collection included with Coastal Explorer contains all of the official NOAA raster (RNC) and vector (ENC) charts and all of the official US Army Corps of Engineers Inland Navigation charts (IENC). Use **Main Menu > Chart Portfolio** to install these charts; they will appear in the section called **Ready to Install** on the left side of the screen when a disc containing the charts is in your PC.

Coastal Explorer can automatically download charts and updates based on regions you select. Use the **Main Menu > Chart Portfolio > Install Charts > Chart Subscriptions** command for more information.

## *Installing Other Types of Charts*

Coastal Explorer can use various types of charts other than the charts that are included with the program. Depending on where and how those charts are installed on your computer, you may need to configure Coastal Explorer before they can be used.

Each time Coastal Explorer is started, it scans certain folders on your computer for charts that are installed by other programs. 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 **Main Menu > Chart Portfolio > Install Charts > Install charts already on this computer** 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.

Charts on a removable disc (CD-ROM or DVD-ROM) typically display slower than charts on hard drives, so the first time a chart disc 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 **Main Menu > Chart Portfolio > Install Charts > Install charts from a CD or DVD** command.

Some charts (BSB Version 4, for example) may need to be “unlocked” before they can be used. These charts should be installed and unlocked using the setup program that came with them.

If you download charts from the Internet, and they are in a ZIP file, you can have Coastal Explorer install them directly from the ZIP file using the **Main Menu > Chart Portfolio > Install Charts > Install charts from a ZIP file** command.

## ***Installing ChartWorld, AVCS, or other “S-63” Charts***

S-63 is a copy-protection scheme developed to protect the copyright of S-57 charts that are not made freely available (which includes most charts outside the US). S-63 protected charts work great with Coastal Explorer, but installing them requires a few extra steps.

First you must activate and register Coastal Explorer on each of the computers you will use the S-63 charts. You may have up to three activated computers at a time.

When you purchase S-63 ENC charts you will be asked for your “S-63 User Permit”. The User Permit is a special code that identifies your computer to the chart supplier and is needed for them to provide you with a license to use the charts you purchase. You can find your User Permit in **Main Menu > Chart Portfolio > Install Charts > Install ChartWorld, AVCS, or other S-63 charts**.

After you have purchased some licenses, the chart supplier will provide you with two or more files. One file will contain the permits (licenses) to use the charts and the other files will contain the actual charts.

After purchasing S-63 chart permits, use the **Main Menu > Chart Portfolio > Install Charts > Install ChartWorld, AVCS, or other S-63 charts** window to install the permits and the charts. Be sure to install the permits first as Coastal Explorer will only install S-63 charts that you have valid permits for.

# Configuring Your GPS and Other Instruments

Coastal Explorer can use and display information provided by a wide variety of sensors that are connected to your PC. These sensors include GPS receivers, depth sounders, speed logs, electronic compasses, AIS receivers, anemometers, and more.

Coastal Explorer can use information provided in several formats or “interfaces”. The most common of these is called NMEA 0183 which is a standard marine electronics connection interface that has been in use since around 1983. Another popular interface is the “Garmin Binary Protocol,” which also goes by several other similar names, and is used by most of the handheld GPS units made by Garmin as well as some of their chartplotters. Coastal Explorer can also use information from sensors on an NMEA 2000 network which is the latest marine electronics standard.

Different sensors will have different requirements for connecting to your PC. We suggest you check with the sensor manufacturer for specific details, but you can also find some general information in the Coastal Explorer help system.

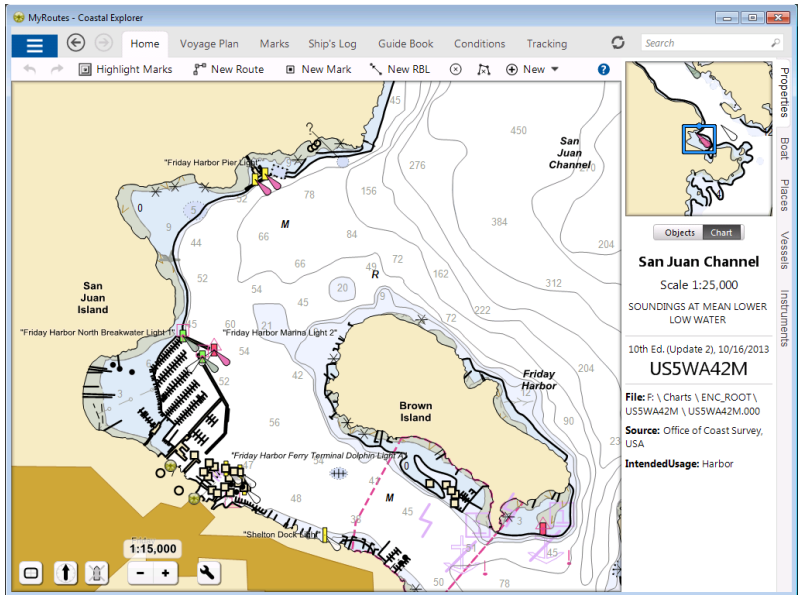
If you are starting out with a Rose Point GPS Sensor, simply insert the disc that came with the GPS to get the driver installed and then start Coastal Explorer. Your GPS will be configured automatically.

If you are using some other USB GPS, follow the manufacturer’s instructions for getting the driver installed and then use the **Main Menu > Configure Vessel and Electronics > Data Ports** window to configure the COM port used by that GPS. If you are unsure of the correct COM port, you can use the **Auto Detect** option to have Coastal Explorer search all of the ports on your computer for a GPS. The **Port Settings** option gives you more control over how the port will be configured if you need it.

If you have an NMEA 2000 network on your vessel and would like Coastal Explorer to use those sensors, you will need a Rose Point NMEA 2000 Gateway or other compatible NMEA 2000 Gateway. Check Coastal Explorer Help or the support area of [www.coastalexplorer.net](http://www.coastalexplorer.net) for more information on NMEA 2000 Gateway compatibility.

# Planning Mode

Planning Mode is the initial mode of operation for Coastal Explorer. This is where you can easily create routes, marks, boundaries, and other navigation objects, find places by name, and easily access all of the planning features of Coastal Explorer.



The title bar lets you know you are using Coastal Explorer and also tells you the name of the document you are using for your routes and other navigation objects.

Below the title bar are the Main Menu button, Back and Forward buttons, Browser Tabs, the Sync button, and the Search Box. While you are moving the mouse over the chart, this area will change to show information about whatever the mouse is point at. When you move the mouse up to use a button, the buttons will reappear.

The next thing down in the window is the toolbar. Different toolbars will appear here depending on what you are doing. The one in this picture is the standard "Home" toolbar which provides access to commands such as Undo, Redo,

Highlight Marks (which will make the marks you add show up better by washing out the chart a bit), New Route, New Mark, New RBL (Range/Bearing Line), other object creation commands, and Help.

## ***The Task Pane***

A Task Pane appears on the right side of the window. It can be used to see or adjust the properties of the selected chart or navigation object, find places that are nearby the area you are looking at, show your Instrument Panels, etc.

Coastal Explorer will automatically select the appropriate Task Pane in certain circumstances, but you can always select one yourself by clicking on one of the tabs along the far right edge of the Task Pane.

At the top of the Task Pane is the Chart Overview. This panel shows you an overview of the area seen in the primary chart panel. The overview is always oriented North-Up and has a 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.

You can hide the Task Pane (and the Chart Overview) by clicking on the current Task Pane tab or pressing the **Ctrl+F1** key.

## ***The Browser***

The Browser is a panel that can appear near the top or left side of Coastal Explorer to show your voyage plan, navigation objects, guide book information, tide and current predictions, weather forecasts, and other information.

All of the tabs across the top of the Coastal Explorer Planning Mode window other than “Home” represent the various browsers. To show a browser, click on the appropriate tab.

In Cruise Mode, click the Coastal Explorer logo in the top-left corner of the screen to see the Planning Mode tools and access the browser tabs.

You can adjust the size of some browsers by dragging the thin bar between it and the chart panels.

Some browsers have a list of page names on their left side. Click these names to access different pages of information.

Most browsers also provide additional commands on their toolbars. Some browsers also provide shortcut access to some of their commands via menus.

You can Right-click on a browser tab to access these menus even when a browser is not active.

When a browser is open, an extra layer of symbols may appear on the chart. Clicking on any of these symbols will cause the browser to show information for that symbol. For example, when the Guide Book browser is open, symbols indicating the positions of other guide book entries will appear on the chart and clicking on those symbols will show those entries in the browser.

The **Back** and **Forward** buttons on the toolbar will cycle back and forward through the different things you've been looking at in the browser (much like a web browser). The buttons will also move back and forward through places you've looked at on the chart.

The following sections describe the different types of browsers in more detail.

## **Voyage Plan**

The Voyage Plan Browser has three pages. The Routes page shows a list of the routes in your current Voyage Plan Document. The Details page shows information about the selected route such as the length of each leg, the speed you plan to travel, the time you expect to leave, and an estimated time of arrival. The Obstacles page lists obstacles that Coastal Explorer has identified along the selected route.

## **Marks**

The Marks browser provides a tabular way of looking at all the marks, range/bearing lines, boundaries, and other navigation objects you've created in your current Voyage Plan Document. Selecting an object in the browser will also select the object on the chart and scroll it into view.

## **Ship's Log**

This browser displays entries from your Ship's Log, Tracks you've recorded while underway, and any Event marks you've created in your current Voyage Plan Document.

## **Guide Book**

The Guide Book browser displays information from the US Coast Pilot™, the NGA Sailing Directions, and any other Coastal Explorer guide books you might have installed.



With your Coastal Explorer Network account, you can add information to the Guide Book and share it with others. To contribute to the community guide book, right-click on the chart and select **Insert Guide Book Place**.

## Conditions

The Conditions browser shows you weather, tide level, and tidal current information via several pages:

The Text Forecast page displays text weather forecasts which are automatically downloaded from the Coastal Explorer Network if you are connected to the Internet. You can right-click on the chart and use the **Weather Forecast** option to open the browser to the closest weather forecast.

The Graphical Forecast page provides controls for downloading and formatting graphical weather forecasts which are displayed on top of your charts. The graphical weather forecast files are normally downloaded from the Coastal Explorer Network, so you need an Internet connection to use this feature. However, Coastal Explorer can also load standard GRIB files if you have a way to get them onto your computer.

The Tide Level and Tidal Current pages display a tide predictions graph along with the times of events such as high/low tide and slack currents. You can right-click on the chart and select either the **Tide Level Prediction** option or the **Tidal Current Prediction** option to open the browser to the closest tide or current station.

The Observations page shows recent weather and water-level observations from buoys and other stations around the world. This information is downloaded from the Coastal Explorer Network, so an Internet connection is required.

## Tracking

If you have an AIS receiver connected to your PC, the Tracking browser will list all of the vessels currently being tracked by Coastal Explorer.

You can sort the table by clicking on the various columns. Clicking a second time on the same column will reverse the sorting order.

## Using the Chart Panel

Most of the Coastal Explorer window is usually used to show the chart and the way you use the chart is exactly the same in both Planning and Cruise modes.

The chart may be scrolled around and zoomed in and out 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 faster.

You can scroll with the mouse by pointing at an area of the chart that does not have a mark or other object, pressing and holding the left mouse button, and dragging the chart around. You can also scroll 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.

To zoom in and out with the keyboard, press either of the + or – keys. With the mouse, use the + or – buttons at the bottom of the chart panel, or use the scroll-wheel if your mouse has one.

You can select a specific chart viewing scale by clicking on the scale shown above the + and – buttons at the bottom of the chart panel. This will show a panel that will let you select a scale for a particular purpose or use a slider to adjust the chart scale.



While your boat is moving, you can tell Coastal Explorer to automatically scroll the chart. Several “Auto Scroll” modes 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 panel.

The button just to the left of the + and – buttons at the bottom of the chart panel is used to select an AutoScroll mode. The same button can be used to quickly scroll the chart to show your boat when you

are looking elsewhere.



The next button to the left controls the orientation of the chart. Clicking the button will cycle through North Up, Heading Up, and Course Up modes.

Because Coastal Explorer will let you adjust the viewing scale of the charts to anything between 1:1,000 and 1:100,000,000, there will be times that the chart image you see has been magnified to the point of implying more detail than is really there. This is pretty obvious with raster charts as they start to look blocky, but vector charts tend to stay nice looking at extreme magnifications.

This is what the overscale indicator looks like: **⚠ OVERSCALE ⚠**

**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 automatic scrolling, just press the **Home** key on your keyboard or the Follow Boat button at the bottom of the chart panel.

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 right-most button at the bottom of the chart panel provides access to many options that control the type of chart displayed and how the charts are displayed. These options are organized into a few separate pages which are listed on the left side of the menu while the selected pages’ options show up in the right.

The **Chart Types** page lets you select between vector charts, raster charts, photo charts, topographic maps, etc. You can also quickly select vector charts with the

**V** key, raster charts with the **R** key, photo charts with the **P** key, or topographic maps with the **O** key. This option page also lets you turn the chart quilting feature on and off.

The **Chart Colors** page controls the colors used to draw vector charts.

The **Vector Charts** and **Raster Charts** pages provide additional options to control how vector charts and raster charts are displayed.

The **Extra Layers** page provides options for additional information that can be displayed on top of the charts at all times, including tide and current stations, chart outlines, and a distance scale.

The **Text Size** page provides a few options to control the size of most of the text that is drawn on the charts. (Since raster chart text is just part of the picture of the chart, these options cannot control that text.)

What you see in the chart panel 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.

# 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 clicking one of the buttons on the Home toolbar. Individual buttons are provided for creating a new route, mark, range/bearing line (RBL), boundary circle, or boundary area. Other object types may be created by first clicking the **New** button on the Home toolbar and then selecting the type you want from the menu that appears.

After using a command that adds a new object, 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 the Done button on the toolbar (or press the **Esc** key, or 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 also lets you see them in tabular form in various browsers. Routes can be seen in the Routes page of the Voyage Plan browser, Tracks and Events are shown in the Ship's Log browser, and all other types are shown in the Marks browser.

Selecting an object in the Marks 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. You can also hide objects by right-clicking on them and selecting the **Hide** option from their menu. Using the Marks browser is the only way to show a hidden object.

## Using Voyage Plan Documents

Coastal Explorer keeps all of your navigation objects such as routes, marks, range/bearing lines, and boundaries in Voyage Plan 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 **Main Menu > New**, open one with **Main Menu > Open**, and save it with **Main Menu > Save** or **Main Menu > Save As**.

Documents are normally kept in the folder called “**Documents**” (or “My Documents” on Windows XP) but you can save them wherever you like.

You can open a document by starting Coastal Explorer and using the **Main Menu > Open** command or pick a recently used file from **Main Menu > Recent**.

You can also use the Windows Explorer 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.

Since Voyage Plan Documents are just normal files, you can send them as attachments to email messages using most email programs. If you receive a document as an e-mail attachment, you can open it from your e-mail message and Coastal Explorer will start automatically if it's not already running.

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

Using the **Marks > Import** command, you can import routes, waypoints, and other navigation objects from files created by other navigation programs as well as compatible chart plotters and GPS receivers. When you import objects, they are inserted into the currently open Voyage Plan Document.

# 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 **Home > New 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 Obstacles page of the Voyage Plan Browser when it is open.

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 then click a second time on the last waypoint to finish creating your route (or press the **Esc** key).

Don't worry if your route is not perfect as you are creating it as Coastal Explorer has some great tools for letting you make changes later. In fact one common way to create routes is to start with a "rough sketch" at a fairly small scale and then go over the route at a large scale to make any necessary detailed adjustments.

Once a route has been created, click anywhere along that route to select it and to get "handles" which let you insert new waypoints. One handle appears at the location you click and an additional handle appears at each end of the route. You can click on any of these handles to add a new waypoint to the route at that location.

As you are creating or modifying a route, Coastal Explorer will use information in your vector charts to point out obstacles that you should be aware of. You can also check a route later by using **Voyage Plan > Obstacles**.

**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 may also want to check the **Guide Book** for more information about the area.

If your route is in an area that is affected by strong currents or tides that may leave you on the ground, you can 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 and selecting either the **Tide Level Prediction** or the **Tidal Current Prediction** option.

If you have Internet access, you might also want to check the weather forecast for your area and Coastal Explorer can show you both a text forecast for areas in the US and Canada close to shore and a graphical forecast for just about any part of the world.



# Cruise Mode

In Cruise Mode, Coastal Explorer takes over the entire screen and hides the normal toolbars. In order to provide easy access to the primary commands you'll need while underway a few large, easy to press buttons appear at the top and 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 **Main Menu > Cruise Mode** command or by pressing the **F12** key. You can get back to Planning Mode with the **Main Menu > Planning Mode** command or by pressing the **F12** key again. (To get the Main Menu while in Cruise Mode, click on the Coastal Explorer icon in the top-left corner of the screen to show the Planning Mode tools and then click on the Main Menu button.)



## Custom Screen Configurations

Coastal Explorer lets you save and restore custom screen configurations from the Screen Menu in Cruise Mode.

Nine separate screen configuration "slots" are available. These screen slots appear on the Cruise Mode Screen Menu and each one can hold a configuration of one to four panels including their relative sizes and their settings.

More specifically, each screen configuration consists of one to four panels, where each panel consists of a type and settings appropriate to that type of panel. Chart panels keep track of the latitude and longitude at the center of the panel, the chart viewing scale, what types of charts are shown (raster, vector, topographic map, etc.), the chart orientation, and the auto-scrolling mode. Video panels keep track of which video source is being used. Radar panels keep track of the off-center location and the status of tools such as VRM's and EBL's. In addition to these view settings, the screen configuration keeps track of the relative sizes of the panels.

You can use saved screen configurations to quickly reconfigure Coastal Explorer for specific tasks. For example, you might normally cruise with a large chart panel at a large scale in look-ahead mode alongside a smaller chart panel at a small scale in center-boat view. Then, when docking, you might prefer to have one large scale chart and a couple of video panels. If you have a compatible radar, you might want a small radar-only panel and a small overview chart as well as a large chart.

## ***Virtual Instrument Panels***

One of the Task Pane options is called **Instruments** and it displays information received by the instruments connected to your computer as well as some things calculated by Coastal Explorer. Many different Instrument Panels are available and you can decide which of them to display.

Each Instrument Panel has a menu that may be accessed by clicking the right mouse button while pointing at the instrument panel. The menu allows you to change what is displayed in the panel as well as close the panel or add another one. Some panels also add commands to the menu that are specific to that type of panel.

The **Add Instrument Panel** window displays a large list of types of data that can be displayed. You can use the drop-down list of categories above the big list to display only one category of data at a time which can help you find a specific item.

After selecting a type of data, a preview of the instrument panel will appear on the right side of the window. Above the preview is a drop-down list of alternate displays for that data. Select the type of display you want and click OK to finish adding a new instrument panel to the Task Pane.

You can re-arrange the instruments on your Instrument Panel by holding down the Alt key and dragging an instrument up or down.

## Creating Additional Instrument Panels

You can create additional Instrument Panels by right-clicking on the Task Pane tabs and selecting **New Task Pane**.

Your new Instrument Panels can be deleted or renamed by right-clicking on their tab and selecting the **Delete Task Pane** or **Rename Task Pane** options.

# Using Your Virtual Boat

Coastal Explorer normally shows your position by placing a small green boat symbol there on the chart. You can change the color of your boat symbol and control various other aspects of the boat's display using the Properties Panel for the boat.

To access the Boat Properties Panel, click on the Boat tab of the Task Pane. If you see the boat symbol on the chart, you can also click on the boat to get its properties to appear.

Most of the properties on the General and Range pages affect the appearance of the boat symbol and the extra stuff that you can have around it.

The **Main Menu > Configure Vessel and Electronics** window has some options that you should setup in order for several other features of Coastal Explorer to work optimally.

The Length Overall and Beam options in the **Vessel** page allow Coastal Explorer to draw the boat symbol to the same scale as the chart when you are zoomed in far enough that the scaled length of your boat would be at least as large as the default symbol on the screen. You must also set the relative position of your GPS for this feature to work. That is done in the **Position Sensor (GPS)** page where you can set a position for each GPS you have configured.

The Draft and Bridge Clearance options are used by the obstacle detection features to make sure your routes don't enter water that is too shallow or go under bridges or cables that are too low.

The Cruising Speed property is the default planned speed assigned to new route legs that you create. This speed can be changed later, but it helps to have your "normal" cruising speed here so you don't have to change as much later if you want Coastal Explorer to calculate your ETA.

The Port and Starboard Turning Radius properties are used by the Wheel-Over Line and Predicted Log Race waypoint styles to predict the curve your boat might take as you turn towards a new waypoint.

Normally the boat symbol will appear where the GPS says it should be. However, you can activate Dead Reckoning mode to override the GPS position. Dead Reckoning mode is started whenever you move the boat to a new location by dragging it or by right-clicking on the chart and using the **Move Boat Here** option. Dead Reckoning mode is indicated with a flashing yellow bar above the

GPS Status indicator and with the letters DR over the signal strength in Cruise Mode.

You can get out of Dead Reckoning mode by right-clicking on the boat symbol and selecting the **Use GPS Position** option.

While in dead reckoning mode, you can steer the boat and adjust its speed by using the **Ctrl+Shift+Arrow Keys**. The left and right arrows adjust the boat's heading and the up and down keys adjust the speed.

## 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 **Voyage Plan > 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. This lets you make sure all course changes are really safe at the time they will be made.

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 **NAV > Next Waypoint** button in Cruise Mode). The **Shift+W** key will select the previous waypoint in a route.

When you start moving, and Cruise Mode is activated, the Instruments Task Pane will appear. This Task Pane is completely customizable, but the default settings will show information about your active route and your progress along it.

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 **Main Menu > Options > Alerts** command to adjust the “XTE over” parameter to whatever makes you feel comfortable.

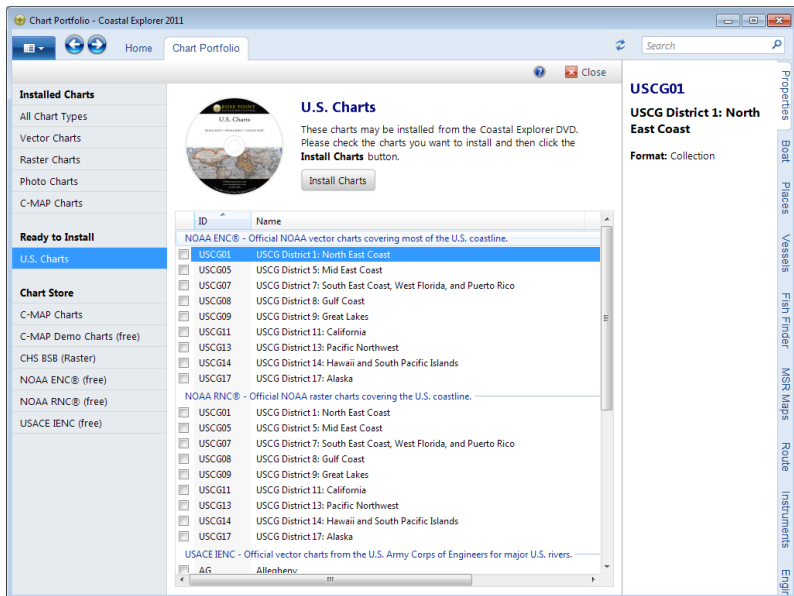
Sometimes you may find it necessary to go off course and you may decide to stay that way. For example, you might need to steer clear of another vessel and end up with a clear run to the next waypoint. If such a maneuver leaves you far enough off course that the alarm is sounding, but you are certain you just want to go from where you are straight to the active waypoint, you can use the **Route > Reset XTE** option 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 zero.

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 **Main Menu > Options > Alerts** command.

As you are cruising Coastal Explorer can record a track of where you actually go. You can start a new track by right-clicking on your boat and selecting the **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.

# The Chart Portfolio

The Chart Portfolio is a window that provides tools for managing your chart collection.



You can get to the Chart Portfolio with the **Main Menu > Chart Portfolio** command. You can get back out with the same command, with the **Home** tab, or with the **Close** command on the Chart Portfolio's toolbar.

The Chart Portfolio shows you all of the charts in a particular collection. These collections can include charts you have already installed, charts that are ready to be installed from a CD or DVD-ROM, or charts that may be purchased or downloaded. The list on the left side of the window lets you select the collection you want to see.

The list of charts may be seen as a detailed list in tabular form, a grid of thumbnail images of charts, or outlines drawn on a world map. You can select how to view the chart list with buttons on the Chart Portfolio's toolbar. (The view type options may change depending on which collection you have selected.)



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. Right-clicking on a chart will display a menu of operations you can perform on the chart.

When you are using one of the Chart Store collections you will see options to purchase, download, and/or subscribe to charts. Chart purchasing is done via the Rose Point online store. Please be aware that some charts are delivered on CD or DVD-ROM rather than online, so you may need to allow time for shipping.

# Video Panels

Coastal Explorer can display the image from video cameras connected to your PC. It is possible to use "webcam" style cameras that typically connect to a USB port, a network video camera, or a standard video camera connected to a video interface device (USB or internal) on your PC.

Coastal Explorer will let you select a source from all of the cameras currently connected to your PC and display the video in either a small Virtual Instrument Panel in the Task Pane or in a larger panel alongside your charts.

## *Video Panels*

To display video in the main screen area, use one of the **Panel Menu > Video** options.

The **Source** button below the video panel lets you select the video source. Clicking this button displays a menu of all of the live video sources available on your computer as well as options to open a file or network stream.

## *Video Instrument Panels*

To display video in a Virtual Instrument Panel, open the Instruments Task Pane, right-click on the Instruments Task Pane and select the **Add another panel** option, select Video from the list of data items, and press OK.

Right-click on the Video Instrument Panel to access its options which will include the video source, any options provided by the video camera, and playback controls.

# Keyboard Shortcut Quick Reference

<b>Ctrl+N</b>	Create a New Navigation Object Document
<b>Ctrl+O</b>	Open an existing Navigation Object Document
<b>Ctrl+S</b>	Save the currently open Navigation Object Document
<b>Ctrl+P</b>	Print
<b>Ctrl+A</b>	Select All
<b>Ctrl+X</b>	Cut
<b>Ctrl+C</b>	Copy
<b>Ctrl+V</b>	Paste
<b>Ctrl+Z</b>	Undo the last editing action
<b>Ctrl+Y</b>	Redo the last editing action
<b>Del</b>	Delete
<b>Alt+Enter</b>	Show the Properties Panel in the Task Pane
<b>Arrow Keys</b>	Pan the chart
<b>Shift+Arrow Keys</b>	Pan the chart faster
<b>Page Up</b>	Pan the chart towards the vessel's heading (or course in Course Up mode)
<b>Page Down</b>	Pan the chart away from the vessel's heading (or course in Course Up mode)
<b>Ctrl+Right</b>	Rotate the chart clockwise
<b>Ctrl+Left</b>	Rotate the chart counter-clockwise
<b>+</b>	Zoom the chart In
<b>-</b>	Zoom the chart Out

<b>U</b>	Cycle the chart orientation between North, Course, and Heading
<b>Home</b>	Center the chart on the boat
<b>End</b>	Stop following the boat
<b>Ctrl+B</b>	Cycle the "Bearing Display Mode" between True and Magnetic north
<b>Tab</b>	Select the next Navigation Object
<b>Shift+Tab</b>	Select the previous Navigation Object
<b>Enter</b>	Activate the property window when a Navigation Object is selected
<b>Esc</b>	Hide the chart tip, or cancel the operation that is in progress
<b>F1</b>	Get help
<b>Ctrl+F1</b>	Show or Hide the Task Pane
<b>F2</b>	Edit the name of the selected Navigation Object
<b>F4</b>	Man Over-Board
<b>F5</b>	Add event mark at boat location
<b>F7</b>	Add a new mark at the next click
<b>F8</b>	Start adding a new route
<b>F9</b>	Set a bookmark at the current viewing area
<b>F10</b>	Go to the bookmark set with F9
<b>F11</b>	Turn Full Screen mode on or off
<b>F12</b>	Switch between Planning and Cruising modes

<b>Ctrl+F</b>	Find
<b>F3</b>	Find Next
<b>Shift+F3</b>	Find Previous
<b>V</b>	Display only vector charts
<b>Shift+V</b>	Turn the display of vector charts on or off
<b>R</b>	Display only raster charts
<b>Shift+R</b>	Turn the display of raster charts on or off
<b>P</b>	Display only photo charts
<b>Shift+P</b>	Turn the display of photo charts on or off
<b>O</b>	Display only topographic maps
<b>Shift+O</b>	Turn the display of topographic maps on or off
<b>M</b>	Display C-MAP charts (if installed)
<b>H</b>	Turn the hybrid vector chart on or off
<b>Ctrl+I</b>	Cycle between day, dusk, and night colors
<b>1 through 9</b>	Select a Custom Screen
<b>C</b>	Show or hide current stations on the chart
<b>T</b>	Show or hide tide stations on the chart
<b>Shift+C</b>	Show the Tidal Current Predictions browser
<b>Shift+T</b>	Show the Tide Level Predictions browser

<b>W</b>	Skip the active waypoint and activate the next one from the active route
<b>X</b>	Reset the Cross Track Error
<b>Ctrl+Shift+Up</b>	Speed the boat simulator up
<b>Ctrl+Shift+Down</b>	Slow the boat simulator down
<b>Ctrl+Shift+Left</b>	Turn the boat simulator to port
<b>Ctrl+Shift+Right</b>	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.

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