

# Endeavour®5 Navigator V 5.5 How To Guide

## WELCOME TO ENDEAVOUR@5 NAVIGATOR V 5.5

HSA Systems Pty Ltd congratulates you on your purchase of ENDEAVOUR® and we trust that the system will meet your navigation requirements.

## ABOUT HSA

HSA Systems Pty Ltd is an Australian company employing 50-plus specialists in cartography, geographic and hydrographic information systems and information processing. HSA is a company specialising in the development of hydrographic applications software and electronic chart data. HSA also provides technical consulting and support services worldwide for hydrographic, navigational charting, oceanographic and military applications for defence, government and private organisations.

For further information on HSA, visit us at our websites:

[www.hsa.com.au](http://www.hsa.com.au) and [www.hsa.co.nz](http://www.hsa.co.nz)

## IN-CONFIDENCE

The information contained herein is proprietary to HSA Systems Pty Ltd (HSA) and is IN-CONFIDENCE. No part of this document may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without prior written permission of HSA. Licensed ENDEAVOUR@5 NAVIGATOR V 5.5 users can make one paper copy of this document if required for personal use.

## COPYRIGHT

The information contained herein is copyright to HSA Systems Pty Ltd (HSA).

HSA grants Licensed Users the right to copy the information contained herein, as required to translate the information into another language.

HSA grants Licensed Users the right to copy the information contained herein for the purposes of training and use of the HSA's Endeavour@5 Navigator V 5.5 described herein.

© Copyright HSA Systems Pty Ltd 1995, 2007

## DISCLAIMER AND ACKNOWLEDGMENTS

The information contained in this document is subject to change without notice.

HSA makes no warranty of any kind with regards to this material, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. HSA shall not be liable for errors contained herein or for incidental, and consequential or other indirect damages in connection with the furnishing, performance or use of this material.

Windows XP, Windows Vista and Internet Explorer are register trademarks of Microsoft Corporation.

Seafarer ® RNC / HCRF file format © Australian Hydrographic Service

ARCS ® / HCRF file format © United Kingdom Hydrographic Office

WA RNC / HCRF file format © Department for Planning and Infrastructure, Government of Western Australia

GBRMPA RZC / HCRF file format © Great Barrier Reef Marine Park Authority

NZ Mariner file format © Land Information New Zealand




## SOFTWARE LICENCE AGREEMENT

1. In using the ENDEAVOUR® software (referred to as “Licensed Software”) the user agrees to be bound by the terms of this agreement.
2. In using the Licensed Software, the user acknowledges that HSA Systems Pty Ltd (“HSA”) is the proprietor of the Licensed Software, and that the Licensed Software is copyright to HSA on a worldwide basis as interpreted under Australian Law, and that HSA grants the user the right to copy the Licensed Software for backup purposes only and to use the Licensed Software, but does NOT GRANT THE USER the right to de-compile, disassemble or modify the Licensed Software; or sell or assign the Licensed Software to a third party.
3. In using the Licensed Software, the user acknowledges that:
  - i. NEITHER THE ENDEAVOUR@5 NAVIGATOR V 5.5 SOFTWARE NOR THE CHART DATA USED IN THE ENDEAVOUR@5 NAVIGATOR V 5.5 SOFTWARE MAY BE USED AS A VESSEL’S PRIMARY NAVIGATION SYSTEM REPLACING PAPER NAVIGATION CHARTS UNLESS AUTHORISED BY THE NATIONAL MARITIME SAFETY AUTHORITY UNDER WHICH THE VESSEL IS REGISTERED.
  - ii. HSA assumes no responsibility for the accuracy and, or completeness of electronic chart data supplied with the Licensed Software, and assumes no responsibility for the use to which that electronic chart data is put;
  - iii. HSA accepts no responsibility for copyright infringements relating to electronic chart data which may be installed on the Licensed Software by the user or other parties; and
  - iv. Electronic charts accessible to the user in Demonstration Mode are provided for demonstration and training purposes only and ARE NOT TO BE USED FOR NAVIGATION OR PLANNING PURPOSES.
  - v. It does not rely on, and it is unreasonable to rely on the Licensed Software for purposes other than for which it was supplied.
4. Nothing in this Software Licence is to be construed as a representation that, or warranty that:
  - i. the use of the Licensed Software will not infringe any third party intellectual property rights;
  - ii. the Licensed Software is accurate or complete; or
  - iii. the Licensed Software will meet the users’ needs notwithstanding that those needs may have been made known to HSA.
5. The user accepts the sole risk of interpreting and applying the Licensed Software and releases and indemnifies and holds harmless HSA and its officers, employees, agents and subcontractors from and against all liabilities, losses, actions, demands, proceedings, awards, settlements, compensation, damages, costs and expenses (whether brought or incurred by third parties and whether relating to death, injury or illness to any person; direct, consequential or financial loss or damage; or infringement of intellectual property of any third party) directly or indirectly relating to, or arising from, the use of the Licensed Software by the user or the user of, or reliance on, the Licensed Software by any person.
6. HSA does not give any warranty nor accept any liability in relation to the Licensed Software except to the extent, if any, required by law or as specifically provided for in this Software Licence or as specifically provided in the contract under which the Licensed Software was purchased. If apart from this clause any warranty or condition would be implied, whether by law, custom or otherwise, that warranty or condition is, to the fullest extent permitted by law, hereby excluded. With respect to any non-excludable implied warranty or condition, HSA’s liability for breach thereof is limited to the fullest extent permitted by law and, without limiting the generality of the foregoing, where such liability can be limited to the replacement or repair of the Licensed Software, such liability shall be limited to any one or more of them at HSA’s discretion.
7. HSA reserves the right to alter the specifications and procedures of the Licensed Software.

## ABOUT THIS MANUAL

This is a Quick User Guide covering the use of Endeavour@5 Navigator V 5.5 software.

The following style conventions are used in this manual:

- *Italic* text refers to dialog's fields
- **Bold** text refers to the functions, options and button's name
- Text in `courier` typeface is used to distinguish filenames, prompts and text to be entered by the user
- UPPER case text refers to the menus where functions are located
-  *and italic text in red box* signifies an important message
- ,  - these symbols are used to signify the use of data floppy and CD

All steps in this user guide are using the menu options. The equivalent button or letter shortcuts can be used when available.

**TABLE OF CONTENTS**

Welcome to Endeavour®5 Navigator V 5.5 .....	II
About HSA.....	II
In-Confidence.....	II
Copyright .....	II
Disclaimer and Acknowledgments.....	II
Software Licence Agreement .....	III
About this Manual.....	IV
Table of Contents .....	V
<b>1 Getting Started.....</b>	<b>7</b>
1.1 How to Install Endeavour®5 Navigator V 5.5 as new purchase.....	7
1.2 How to Install Endeavour®5 Navigator V 5.5 as an upgrade.....	7
1.3 Running Endeavour®5 Navigator V 5.5.....	8
1.4 How to configure the Large Toolbar .....	9
1.4.1 <i>How to Create New Large Toolbar.....</i>	9
1.4.2 <i>How to Modify an Existing Large Toolbar.....</i>	10
1.5 How to Use Other Applications while using Endeavour .....	10
<b>2 Charts.....</b>	<b>12</b>
2.1 How to Install Seafarer®, ARCS®, WARNC and GBRMPA RZC charts for first time .....	12
2.2 How to Install NZ Mariner charts for first time.....	12
2.3 How to Install S-57 ENC encrypted S-63 data for first time .....	13
2.4 How to Install S-57 ENC unencrypted data for first time.....	14
2.5 How to Update Seafarer®, ARCS® WARNC and GBRMPA RZC charts.....	15
2.6 How to Update NZ Mariner charts .....	16
2.7 How to Update S-57 ENC encrypted S-63 data.....	17
2.8 How to Update S-57 ENC unencrypted data .....	18
2.9 How to Remove Charts.....	18
2.10 How to Open a Chart .....	18
2.11 How to Close a Chart.....	19
2.12 How to Print a chart.....	19
2.13 How to Pan a Chart.....	19
2.14 How to Display the High and Low Resolution View of the Chart.....	20
<b>3 Sensors and Vessel setup .....</b>	<b>21</b>
3.1 How to enter your Vessel Own ship Settings .....	21
3.2 How to install a GPS and Other Sensors.....	21
3.3 How to setup an Autopilot .....	22
3.4 How to monitor Targets (other vessels).....	22
<b>4 Routes.....</b>	<b>23</b>
4.1 How to Create a Route graphically .....	23
4.2 How to Create a Route by Latitude / Longitude .....	23
4.3 How to Select a Route .....	23
4.4 How to Deselect / Clear a Route.....	24
4.5 How to Save / Export a Route.....	24
4.6 How to Load / Import a Route .....	25
4.7 How to Delete a Route.....	25
4.8 How to Monitor a Route .....	25
4.9 How to keep the Vessel displayed on the Chart Display area.....	26
4.10 How to track to a Single Waypoint.....	26
<b>5 Chart Work .....</b>	<b>27</b>
5.1 How to use the Dividers tool .....	27


5.2	How to Place a symbol on a chart.....	27
5.3	How to Edit a symbol on a chart.....	27
5.4	How to Move a symbol on a chart.....	27
<b>6</b>	<b>Annex A. List of Shortcuts .....</b>	<b>28</b>

## 1 GETTING STARTED

### 1.1 How to Install Endeavour®5 Navigator V 5.5 as new purchase

1. Insert the Endeavour®5 Navigator V 5.5 CD into the CD drive and wait for the Endeavour®5 Navigator V 5.5 Installation program to start.
  - If the installation program does not start, from the Start Menu select Run and type in **d:\setup.exe** where **d** is your system's CD drive.
2. Follow the instructions of the Endeavour®5 Navigator V 5.5 Installation program.
3. When the installation is complete, attach the dongle provided to the Parallel or USB port of your computer.
4. Refer to the FAQ: "How do I activate the USB drivers for Endeavour® 5 Navigator 5.5" for your version of Windows (XP or VISTA).
5. Double-click on the How To User Guide icon on your desk top to run the program.
6. Consult the user guide on how to install charts.

### 1.2 How to Install Endeavour®5 Navigator V 5.5 as an upgrade

 *Due to significant changes in the new version of the way both raster and vector data has been loaded and accessed, data used in Endeavour Version 4.x needs to be reloaded in the new version.*

#### **ATTENTION!**

#### **Before you start the upgrading:**

- ❖ **Remember to take notes of any settings (vessel, sensor configuration, display) - all Endeavour® versions.**
- ❖ **User data (routes, waypoints, mariner's objects, etc.) exported only from versions 5.3 and 5.4 can be imported into 5.5. To do this, remember to export your data from your previous version before you start.**
- ❖ **You need your Endeavour® CD and your latest chart CDs to set up the new system. Check that you can still use your permits disk.**
- ❖ **In case you have any technical difficulties, do not start this procedure while you are out at sea.**

1. Select **Start / Programs / Endeavour** and click the **Uninstall** option.
2. Follow the instructions on the screen.

3. Open a Windows Explorer window and remove the **HCRFDATA** directory from your **c:\** drive (*only when upgrading from Endeavour Version 4.x*).
4. Insert the Endeavour®5 Navigator V 5.5 CD into the CD drive and wait for the How To User Guide Installation program to start.
  - If the installation program does not start, from the Start Menu select Run and type in **d:\setup.exe** where **d** is your system's CD drive.
5. Follow the instructions of the Endeavour®5 Navigator V 5.5 Installation program.
6. Attach the dongle provided to the Parallel or USB port of your computer.
7. Double-click on the Endeavour®5 Navigator V 5.5 icon on your desk top to run the program.
8. On the pop up "Enter Access Code" dialog note down the "Dongle Hardware ID".
9. E-mail HSA Support [support@hsa.com.au](mailto:support@hsa.com.au) quoting your "Dongle number" (four digit code on your dongle) and the "Dongle Hardware ID" number and requesting your new 5.5 access code.
10. Type in the How To User Guide Access Code field the access code provided to you by HSA Support.
11. Consult the user guide on how to install charts.

### 1.3 Running Endeavour®5 Navigator V 5.5


1. Double-click on the **Endeavour 5 Navigator** icon on your desk top to run the program
2. On the "Start up" screen select the **Seafarer Licence** button. Read this information carefully.
3. On the "Start up" screen select the **ENDEAVOUR Licence** button.
4. Once you have read these licensing conditions, you can choose to click:
  - **I Agree** button – which will start the program. Clicking on this button confirms that you have read and understood the Licensing conditions for using this program and data. For subsequent use of this program you can go directly to the **I Agree** button.
  - **I Disagree/Exit** button – which will close the program, should the user not agree to the licensing conditions.

The Endeavour®5 Navigator V 5.5 application can be run in three different modes: **Navigation**, **Demonstration** or **Simulator** mode.

5. On selection of the **I Agree** button the user is presented with the option to choose in which mode to start:
  - **Navigation Mode** button – will start the application in its standard mode in which to run the Endeavour®5 Navigator V 5.5. This mode

allows the user access to all available charts. The system will track the vessel according to any attached GPS and can also operate an autopilot. This mode requires a dongle to be attached.

- **Demonstration Mode** button – will start the application in Demonstration Mode, i.e. cannot receive data from a GPS or any other sensor, send data to an autopilot or view any charts other than the sample charts made available in Demonstration Mode. The vessels position can be controlled using the *GPS Simulator* available through the VESSEL / **Ownship Settings** option.

 *If a dongle is not connected to the computer when the program is started, only Demonstration Mode will be operational.*

- **Simulator Mode** button –will start the application in Simulator Mode, i.e. vessel is controlled by the *GPS Simulator* available through the VESSEL / **Ownship Settings** option. In this mode any of the licensed charts present in the system can be accessed. A registered dongle must be present to start the program in Simulator Mode.

## 1.4 How to configure the Large Toolbar

### 1.4.1 How to Create New Large Toolbar

1. Click the **Menus** button
2. Select the VIEW / **Configure Large Toolbar** option
3. Click the **Add Toolbar** button on the “Configure Large Toolbar” dialog
4. Type the name you wish at the “Enter Toolbar Name” dialog and click **OK**
5. Highlight an item from the *Available Toolbars Elements* list on the left hand side and click the **Add->** button - this item will be moved in the *Selected Toolbar Elements* list on the right hand side
  - Repeat this process for all the fields you wish to be displayed on this toolbar
  - The number of items on a toolbar can vary as the different information fields require different space, eg. Vessel Location field is twice as big as the SOG (Speed Over Ground) field. The system will warn you when an additional item cannot be included in the current toolbar due to space restriction.
6. To remove an item from the *Selected Toolbar Elements* list, highlight the item and click on the **<-Remove** button
7. To rearrange that order of which the items appear on the Large Toolbar, highlight the item and click on the **Move Up** and **Move Down** buttons on the side of the “Configure Large Toolbar” dialog
8. Select the **Close** button

### 1.4.2 How to Modify an Existing Large Toolbar

1. Click the **Menus** button
2. Select the **VIEW / Configure Large Toolbar** option
3. On the “Configure Large Toolbar” dialog select the name of the toolbar that you want to modify from the *Select Toolbar* pull down list.
  - To add or remove an item or change the order of the items use the steps outlined in the HOW TO CREATE NEW LARGE TOOLBAR section
  - To rename a Large toolbar:
4. On the “Configure Large Toolbar” dialog select the name of the toolbar that you want to modify from the *Select Toolbar* pull down list
5. Select the **ReName Toolbar** button
6. On the “ReName Toolbar” dialog type in the new name and click **OK**
7. Select the **Close** button on the “Configure Large Toolbar” dialog
  - To delete a Large toolbar:
8. On the “Configure Large Toolbar” dialog select the name of the toolbar that you want to modify from the *Select Toolbar* pull down list
9. Select the **Delete Toolbar** button
10. Select the **Close** button on the “Configure Large Toolbar” dialog
  - To arrange the order in which Large toolbars will follow when using the LEFT / RIGHT Large toolbar scroll:
11. Select the **Arrange Toolbars** button
12. On the “Configure Toolbar Order” dialog use the **Move Up** and **Move Down** buttons, click the **Close** button
13. Select the **Close** button on the “Configure Large Toolbar” dialog


### 1.5 How to Use Other Applications while using Endeavour

Irrespective of the mode in which Endeavour®5 Navigator V 5.5 is run, the application is expanded over the whole screen – a feature designed to provide the user with the use of the full capacity of the screen area to display the maximum amount of chart and navigational information.

When the use of another application is required (Tide / Weather application, Internet, etc.):



1. Start the other application
2. Start Endeavour®5 Navigator V 5.5
3. While Endeavour®5 Navigator V 5.5 is running to push it to the background:
  - Use the **Alt + Tab** keyboard keys (pressing the “Alt” key at the same time pressing the “Tab” key)


OR

- Use the keyboard key with the Microsoft Logo  to display the Windows Taskbar and select the other application from the START menu or the Windows Taskbar

## 2 CHARTS


### 2.1 How to Install Seafarer®, ARCS®, WARNC and GBRMPA RZC charts for first time

  Make sure you have available your permit floppy disk, Chart and Update CD.

 *If your laptop cannot read a floppy drive, you can have the permits disk copied to a CD or other media (eg. USB memory stick). In tropical environments we recommend this as floppy disks can deteriorate in the humidity.*

1. Click the **Menus** button
2. Select the CHART / **Manage Charts** option
3. Click the **Seafarer / ARCS** radio button
4. Click the **Next** button on the “Manage Charts” dialog
5. Select **I have never installed HCRF data and I need to add permits, charts and updates to my computer** option
6. Click the **Next** button on the “Manage Charts” dialog
7. Insert your **Permits** floppy as requested and click **OK**
8. Select permits to install – *Install all available permits* is the recommended default
9. Click the **Next** button on the “Manage Charts” dialog
10. Insert your **Chart CD** as requested and click **OK**
11. Select charts to install – *Install all available charts* is the recommended default
12. Click the **Next** button on the “Manage Charts” dialog
13. Insert your **Update CD** as requested and click **OK**
14. Select charts to install – *Install all available charts* is the recommended default
15. Click the **Finish** button on the “Manage Charts” dialog



### 2.2 How to Install NZ Mariner charts for first time



 Make sure you have available your Chart CD and Update CD.

1. Click the **Menus** button
2. Select the CHART / **Manage Charts** option
3. Click the **NZ Mariner** radio button
4. Click the **Next** button on the “Manage Charts” dialog
5. Select **I want to add or update charts on my computer** option

6. Click the **Next** button on the “Manage Charts” dialog
7. Insert your **Chart CD** and click **OK**
8. Click the **I agree to the license** tick box on the “Manage Charts” dialog
9. Click the **Next** button on the “Manage Charts” dialog
10. Select charts to install – *Install all available charts* is the recommended default
11. Click the **Next** button on the “Manage Charts” dialog
12. Click the **Finish** button on the “Manage Charts” dialog
13. Insert your **Update CD** and repeat the above steps


### 2.3 How to Install S-57 ENC encrypted S-63 data for first time

-  *This mode is only available when Using Endeavour® 5 Professional*
-  *If your laptop cannot read a floppy drive, you can have the permits disk copied to a CD or other media (eg. USB memory stick). In tropical environments we recommend this as floppy disks can deteriorate in the humidity.*

 ,  Make sure you have available your permit floppy disk, Chart and Update CD.

1. Click the **Menus** button
2. Select the CHART / **Manage Charts** option
3. Click the **S-57 / Primar** radio button
4. Click the **Next** button on the “Manage Charts” dialog
5. Select **I want to add new permits to my computer** option
6. Click the **Next** button on the “Manage Charts” dialog
7. Insert your **Permits** floppy as requested and click **OK**
8. Select permits to install – *Install all available permits* is the recommended default
9. Click the **Next** button on the “Manage Charts” dialog
10. Click the **Finish** button on the “Manage Charts” dialog
11. Click the **Menus** button
12. Select the CHART / **Manage Charts** option
13. Click the **S-57 / Primar** radio button
14. Click the **Next** button on the “Manage Charts” dialog
15. Select **I want to add or update charts on my computer** option
16. Click the **Next** button on the “Manage Charts” dialog

17. Insert your **Chart CD** and click **OK**

 *To be able to install S-57 ENC data make sure that you have selected the folder containing the ENC\_ROOT directory before selecting **OK**.*

18. Select charts to install – *Install all available charts* is the recommended default

19. Click the **Next** button on the “Manage Charts” dialog

20. Click the **Finish** button on the “Manage Charts” dialog

- If an Update CD has been supplied as well:

21. Click the **Menus** button

22. Select the CHART / **Manage Charts** option

23. Click the **S-57 / Primar** radio button

24. Click the **Next** button on the “Manage Charts” dialog

25. Select **I want to add or update charts on my computer** option

26. Click the **Next** button on the “Manage Charts” dialog

27. Insert your **Update CD** and click **OK**


 *To be able to install S-57 ENC data make sure that you have selected the folder containing the ENC\_ROOT directory before selecting **OK**.*

28. Select charts to install – *Install all available charts* is the recommended default

29. Click the **Next** button on the “Manage Charts” dialog

30. Click the **Finish** button on the “Manage Charts” dialog

## 2.4 How to Install S-57 ENC unencrypted data for first time

 Make sure you have available your Chart CD and Update CD.

1. Click the **Menus** button

2. Select the CHART / **Manage Charts** option


3. Click the **S-57 / Primar** radio button

4. Click the **Next** button on the “Manage Charts” dialog


5. Select **I want to add or update charts on my computer** option

6. Click the **Next** button on the “Manage Charts” dialog

7. Insert your **Chart CD** and click **OK**



 *To be able to install S-57 ENC data make sure that you have selected the folder containing the ENC\_ROOT directory before selecting **OK**.*


8. Select charts to install – *Install all available charts* is the recommended default
9. Click the **Next** button on the “Manage Charts” dialog
10. Click the **Finish** button on the “Manage Charts” dialog
  - If an Update CD has been supplied as well:
31. Click the **Menus** button
32. Select the CHART / **Manage Charts** option
33. Click the **S-57 / Primar** radio button
34. Click the **Next** button on the “Manage Charts” dialog
35. Select **I want to add or update charts on my computer** option
36. Click the **Next** button on the “Manage Charts” dialog
37. Insert your **Update CD** and click **OK**

 *To be able to install S-57 ENC data make sure that you have selected the folder containing the ENC\_ROOT directory before selecting **OK**.*

38. Select charts to install – *Install all available charts* is the recommended default
39. Click the **Next** button on the “Manage Charts” dialog
40. Click the **Finish** button on the “Manage Charts” dialog

## 2.5 How to Update Seafarer®, ARCS® WARNC and GBRMPA RZC charts

  Make sure you have available your permit floppy disk, Chart and Update CD.

 *If your laptop cannot read a floppy drive, you can have the permits disk copied to a CD or other media (eg. USB memory stick). In tropical environments we recommend this as floppy disks can deteriorate in the humidity.*

1. Click the **Menus** button
2. Select the CHART / **Manage Charts** option
3. Click the **Seafarer / ARCS** radio button
4. Click the **Next** button on the “Manage Charts” dialog
5. Select **I want to add new permits to my computer** option
6. Click the **Next** button on the “Manage Charts” dialog
7. Insert your **Permits** floppy as requested and click **OK**
8. Select permits to install – *Install all available permits* is the recommended default
9. Click the **Next** button on the “Manage Charts” dialog

10. Click the **Finish** button on the “Manage Charts” dialog
11. Click the **Menus** button
12. Select the CHART / **Manage Charts** option
13. Click the **Seafarer / ARCS** radio button
14. Click the **Next** button on the “Manage Charts” dialog
15. Select **I want to add or update charts on my computer** option
16. Insert your **Chart CD** as requested and click **OK**
17. Select charts to install – *Install all available charts* is the recommended default
18. Click the **Next** button on the “Manage Charts” dialog
19. Click the **Finish** button on the “Manage Charts” dialog
20. Click the **Menus** button
21. Select the CHART / **Manage Charts** option
22. Click the **Seafarer / ARCS** radio button
23. Click the **Next** button on the “Manage Charts” dialog
24. Select **I want to add or update charts on my computer** option
25. Insert your **Update CD** as requested and click **OK**
26. Select charts to install – *Install all available charts* is the recommended default
27. Click the **Finish** button on the “Manage Charts” dialog

## 2.6 How to Update NZ Mariner charts





Make sure you have available your Chart CD and Update CD.

1. Click the **Menus** button
2. Select the CHART / **Manage Charts** option
3. Click the **NZ Mariner** radio button
4. Click the **Next** button on the “Manage Charts” dialog
5. Select **I want to add or update charts on my computer** option
6. Click the **Next** button on the “Manage Charts” dialog
7. Insert your **Chart CD** and click **OK**
8. Click **I agree to the license** tick box on the “Manage Charts” dialog
9. Click the **Next** button on the “Manage Charts” dialog
10. Select charts to install – *Install all available charts* is the recommended default
11. Click the **Next** button on the “Manage Charts” dialog
12. Click the **Finish** button on the “Manage Charts” dialog


13. Insert your **Update CD** and repeat the above steps

## 2.7 How to Update S-57 ENC encrypted S-63 data

-  *This mode is only available when Using Endeavour® 5 Professional*
-  *If your laptop cannot read a floppy drive, you can have the permits disk copied to a CD or other media (eg. USB memory stick). In tropical environments we recommend this as floppy disks can deteriorate in the humidity.*


  Make sure you have available your Permit floppy disk, Chart and Update CD.

1. Click the **Menus** button
2. Select the CHART / **Manage Charts** option
3. Click the **S-57 / Primar** radio button
4. Click the **Next** button on the “Manage Charts” dialog
  - If new charts have been included within the Update CD follow the steps below
  - If the Update CD contains only updates to previous charts continue from step 15
5. Select **I want to add new permits to my computer** option
6. Click the **Next** button on the “Manage Charts” dialog
7. Insert your **Permits** floppy as requested and click **OK**
8. Select permits to install – *Install all available permits* is the recommended default
9. Click the **Next** button on the “Manage Charts” dialog
10. Click the **Finish** button on the “Manage Charts” dialog
11. Click the **Menus** button
12. Select the CHART / **Manage Charts** option
13. Click the **S-57 / Primar** radio button
14. Click the **Next** button on the “Manage Charts” dialog
15. Select **I want to add or update charts on my computer** option
16. Click the **Next** button on the “Manage Charts” dialog
17. Insert your **Update CD** and click **OK**

-  *To be able to install S-57 ENC data make sure that you have selected the folder containing the ENC\_ROOT directory before selecting **OK**.*

18. Select charts to install – *Install all available charts* is the recommended default
19. Click the **Next** button on the “Manage Charts” dialog
20. Click the **Finish** button on the “Manage Charts” dialog

## 2.8 How to Update S-57 ENC unencrypted data

 Make sure you have available your Chart CD and Update CD.

1. Click the **Menus** button
2. Select the CHART / **Manage Charts** option
3. Click the **S-57 / Primar** radio button
4. Click the **Next** button on the “Manage Charts” dialog
5. Select **I want to add or update charts on my computer** option
6. Click the **Next** button on the “Manage Charts” dialog
7. Insert your **Update CD** and click **OK**

 *To be able to install S-57 ENC data make sure that you have selected the folder containing the ENC\_ROOT directory.*

8. Select charts to install – *Install all available charts* is the recommended default
9. Click the **Next** button on the “Manage Charts” dialog
10. Click the **Finish** button on the “Manage Charts” dialog

## 2.9 How to Remove Charts


1. Click the **Menus** button
2. Select the CHART / **Manage Charts** option
3. Click the type of charts to remove
4. Click the **Next** button on the “Manage Charts” dialog
5. Select **I want to remove charts from my computer** option
6. Select the charts you wish to remove
7. Click the **Next** button on the “Manage Charts” dialog
8. Click the **Finish** button on the “Manage Charts” dialog

## 2.10 How to Open a Chart

1. Click the **Menus** button
2. Select the CHART / **Open** option

3. Search for the chart to open by scrolling through the list of charts  
OR  
Enter the chart name / number in the *Only list charts with names containing* field
4. Click on the desired chart
5. Select the **OK** button on the “Open Chart” dialog

## 2.11 How to Close a Chart

 *Only RNC charts and the World Map can be closed.  
S-57 ENC charts cannot be closed.*

1. Click the **Menus** button
2. Select the CHART / **Close** option

## 2.12 How to Print a chart



Ensure a printer is connected to the PC and the printer setup has been defined.

1. Click the **Menus** button
2. Select the CHART / **Print Setup** option
3. Click on the pull down list of available printers and select the required printer
4. Select the **Size** of paper to use from the “Paper” dialog
5. Select *Portrait* or *Landscape* from the “Orientation” dialog
6. Click the **OK** button in the “Print Setup” dialog
7. Click the **Menus** button
8. Select the CHART / **Print Chart** option
9. Click on the pull down list of available printers and select the required printer
10. Enter the number of copies to print under “Number of copies”
11. Click the **OK** button in the “Print” dialog

## 2.13 How to Pan a Chart

To Pan around a chart, click on the **Chart Display** area and hold the left mouse button down and drag the **Chart Display** area in any direction.


Pan can be used while creating routes or any other symbol or navigational objects. For example, to pan across the chart while digitising a line object, hold down the left mouse button and drag the chart, when the required part of the chart is visible digitise (click with the left mouse button) the next point.

## 2.14 How to Display the High and Low Resolution View of the Chart

1. On the **Chart Display** area click with the right mouse button at a location covered by the chart
2. Select the **Image Types / Low Res and High Res** option

Both High and Low Resolution images will be displayed tiled horizontally or vertically, based on the chart layout, to allow best display of the Low Resolution image.

The Low Resolution image can be used for quick planning reference.

 *If the **Go to Vessel** is selected the application will automatically close the Low Resolution image and extend the High Resolution image to fill the **Chart Display** area. During monitoring it is recommended that the High Resolution image **ONLY** is used.*


### 3 SENSORS AND VESSEL SETUP

#### 3.1 How to enter your Vessel Own ship Settings

1. Click the **Menus** button
2. Select the VESSEL / **Ownship Settings** option
3. On the “Ownship Settings” dialog click the **Characteristics** tab
4. Click the **Beam** button
5. Enter in your vessel beam in meters and click **OK**
  - Repeat steps 4, 5 & 6 for each of the vessel parameters you wish to enter i.e. length, draught, safe depth, safety contour, safe height, turning radius and planned speed.
6. Under **Vessel Type Outline** select *Monohull* or *Catamaran*
7. Under **Vessel Type Craft** select *Conventional Craft* or *High Speed Craft*
8. Under Chart Display select the view required (default selection recommended)
9. Under **Tracking Frame** select the frame size required (default selection recommended)
10. Under **Look Ahead** click on **Vessel Look Ahead** button, enter the vessel’s Look Ahead Time and click **OK**
11. Click **Close** on the “Ownship Settings” dialog

#### 3.2 How to install a GPS and Other Sensors

1. Click the **Menus** button
2. Select the VESSEL / **I/O Configuration** option
3. On the “I/O Configuration Settings” dialog click the **Sensors** tab
4. Click the **Add Sensor** button
5. Select the type of sensor to add (default selection is GPS)
6. Select the *Port* the sensor is connected to e.g. COM3
7. Select the *Baud rate* for the sensor (default selection is 4800)
8. Click on the **Timeout Period** button, enter the timeout period and click **OK**
9. Click **OK** on the “Sensor Properties” dialog

 Repeat the above steps for each additional sensor you wish to establish i.e. depth, gyro, AIS etc.

**i** *AIS is only available when Using Endeavour® 5 Professional*

**i** *If the AIS unit you are using is an AIS-GPS type, i.e. you are not connecting an independent GPS, you need to select both “AIS” and “AIS GPS” sensors*

### 3.3 How to setup an Autopilot

Follow the steps from the **HOW TO INSTALL A GPS AND OTHER SENSORS** section above to add Autopilot as a sensor.

1. On the “I/O Configuration Settings” dialog click the **Autopilot** tab
2. Select the appropriate *Talker*, Bearing, NMEA Sentences Send, etc. types

**i** *For Endeavour®5 Navigator V 5.5 to send information to the Autopilot, you have to create a route, make that route **SELECTED** and monitor that route.*

**i** *It is important to send only the minimum necessary sentences, as sending more than 3 or 4 may slow down your system. The most commonly needed sentences used in Autopilots are: APA or APB, RMB and XTE*

### 3.4 How to monitor Targets (other vessels)

Endeavour®5 Navigator V 5.5 can read and interpret the TTM (Tracked Target Message), TLL (Target Latitude and Longitude) and AIS NMEA sentences when the Endeavour®5 Navigator V 5.5 computer is connected to radar and/or AIS respectively.

Follow the steps from the **HOW TO INSTALL A GPS AND OTHER SENSORS** section above to add TTM or TLL or AIS sensor.

To monitor information about the targets received by the Endeavour®5 Navigator V 5.5 display the “Targets” dialog by selecting the **VESSEL / Targets** option.

## 4 ROUTES

### 4.1 How to Create a Route graphically

1. Click the **Menus** button
2. Select the ROUTES / **Route Manager** option
3. On the “Route Manager” dialog click the **New Route** button
4. Enter the name of the new route to be created and click **OK**
5. Click the **Add WPs** button and then left mouse click on the open chart to add the route’s waypoints
6. Right mouse click to complete the route creation

### 4.2 How to Create a Route by Latitude / Longitude

1. Click the **Menus** button
2. Select the ROUTES / **Route Manager** option
3. On the “Route Manager” dialog click the **New Route** button
4. Enter the name of the new route to be created and click **OK**
5. On the “Route Manager” dialog click on the “Enter Position” check box
6. On the “Enter Position” dialog select the appropriate latitude/longitude datum in the *Datum* field
7. Type in the latitude/longitude of the route’s first waypoint
8. Click **OK** on the “Enter Position” dialog
9. On the “Enter Position” dialog type in the latitude/longitude the route’s next waypoint
10. Click **OK** on the “Enter Position” dialog
11. Repeat the above process until you enter the position of the last route’s waypoint
12. Right mouse click to complete the route creation

### 4.3 How to Select a Route

In order to use a route for navigation you must first select it to make it active.

1. Click the **Menus** button
2. Select the ROUTES / **Route Manager** option
3. On the “Route Manager” dialog click on the pull down list of available routes under *Route Name* and select the required route
4. Click the **Select/Clear Route** button

- If the route has not been previously used for navigation or was not explicitly checked for dangers using the **Check Route** button from the “Route Manager” dialog, the route is automatically checked for dangers by the system and the “Finished Checking *Route Name*” dialog will pop up to inform about any existing dangers along the route
5. If dangers were not detected, the route will become *SELECTED* and change colour from orange to red
  6. If dangers were detected, the “Finished Checking *Route Name*” dialog will list the danger(s) and the “Dangers Found” dialog will expect for you to decide the selection of the route:
    - **Yes** – the route with dangers will be selected and available for monitoring / tracking
    - **No** – the route with dangers will not be selected and can be modified in order to avoid the dangers

#### 4.4 How to Deselect / Clear a Route

In order to use another route for navigation you must first deselect / clear the existing active route.

1. Click the **Menus** button
2. Select the ROUTES / **Route Manager** option
3. On the “Route Manager” dialog click on the pull down list of available routes under *Route Name* and select the currently active route
4. Click the **Select/Clear Route** button – the route will change colour from red to orange

#### 4.5 How to Save / Export a Route

1. Click the **Menus** button
2. Select the ROUTES / **Route Manager** option
3. On the “Route Manager” dialog click on the pull down list of available routes under *Route Name* pull down menu and select the route to save
4. Click the **Save/Export Route** button
5. The routes name will be automatically populated in the *FileName* field of the “Select a directory to export the Route to” dialog. If you want to change the file name, enter the new file name of the route.



*Do not change the file extension – it should be .exp*

6. Select a directory to save/export the route to
7. Click the **Save** button

## 4.6 How to Load / Import a Route

1. Click the **Menus** button
2. Select the ROUTES / **Route Manager** option
3. Click the **Load/Import Route** button
4. On the “Select Route File to Load” dialog select the file of previously saved route
5. Click the **Load** button – the newly loaded route will be displayed in the “Route Manger” dialog

## 4.7 How to Delete a Route

1. Click the **Menus** button
2. Select the ROUTES / **Route Manager** option
3. On the “Route Manager” dialog click on the pull down list of available routes under *Route Name* and select the route to delete

 *If the route is currently a **SELECTED** route, click the **Select/Clear Route** button to deselect it first.*

4. Click the **Delete Route** button
5. Click the **OK** button in the “About to delete Entire Route *Route Name*” dialog

## 4.8 How to Monitor a Route

In order to monitor the vessel’s progress against a *SELECTED* route you must first select the route and then monitor it.

1. Click the **Menus** button
2. Select the ROUTES / **Route Manager** option
3. On the “Route Manager” dialog click on the pull down list of available routes under *Route Name* and select the required route
4. Click the **Select/Clear Route** button, the route will change colour from orange to red
5. Click the **Menus** button
6. Select the ROUTES / **Monitor Route** option
  - The closest to the vessel waypoint from the *SELECTED* route (shown in red) will now be depicted by two red circles
  - All tracking/monitoring information (CTS – Course To Steer, DT WO – Distance To Wheel Over, DT Waypt – Distance To Waypoint, DTD – Distance To Destination, XTE – Cross Track Error) will automatically and continuously be updated
  - Tracking information will be send to Autopilot when one has been connected

## 4.9 How to keep the Vessel displayed on the Chart Display area


To keep the vessel symbol constantly displayed on the Chart Displayed area (covered or not with chart) the **Go to Vessel** option from the VESSEL menu must be selected.

If the chart has been panned or new chart selected for display by you the **Go to Vessel** option will be automatically deselected.

## 4.10 How to track to a Single Waypoint

1. Click the **Menus** button
2. Select the ROUTES / **Go To Waypoint** option
3. Select the location of the waypoint you want to track towards – the selected location will be marked by two red circles and all navigational tracking information will be referred to the new specified location.

If you have been monitoring a route at the time you selected the **Go To Waypoint** option, the application will automatically deselect that route.

 *The application has only one single waypoint at any time, i.e. the previous single waypoint gets moved to the new location.*

To resume tracking the previously *SELECTED* route:

4. Select the ROUTES / **Monitor Route** option
5. Select the ROUTES / **Select Route** option
6. Select the ROUTES / **Select Route** option and select the route to be tracked
7. Select the ROUTES / **Monitor Route** option

## 5 CHART WORK

### 5.1 How to use the Dividers tool

Use the dividers tool to measure off a bearing and distance between two objects.

1. Click the **Menus** button
2. Select the CHART WORK / **Dividers** option
3. Left mouse click on the start location
4. Drag the mouse to the desired point to measure off the range and bearing
5. Observe the values displayed on the **Message Bar** at the bottom of the screen
6. Right mouse click to exit the process

### 5.2 How to Place a symbol on a chart

1. Click the **Menus** button
2. Select the CHART WORK / **Symbols** option
3. Select the option of the desired symbol to insert
4. Place the cursor cross hairs on where you wish to place the symbol and left mouse click

### 5.3 How to Edit a symbol on a chart

Using the mouse:

1. Right mouse click on the symbol
2. Select the **Edit Chart Work** option
3. Enter a comment in the “User Remark” field if required or change any of the attributes on the pop up dialog

### 5.4 How to Move a symbol on a chart

Using the mouse:

1. Right mouse click on the symbol
2. Select the **Move Chart Work** option
3. Move the mouse cross hairs to the new position and left mouse click

**6 ANNEX A. LIST OF SHORTCUTS**

<b>Functionality</b>	<b>Shortcut</b>
Activate waypoint	Ctrl + Y
Arc Line of Position	Alt + A
Caution Note	Alt + N
Clearing Line	Alt + U
Close all dialogs	Alt + C
CPF Mode of Navigation	Ctrl + F
Danger Highlight	Alt + H
Delete a mariner object	Ctrl + X
Dividers	Alt + V
DR Mode of Navigation	Ctrl + D
Drop Default Symbol	Alt + D
Event Note	Alt + E
Go to Vessel	Alt + G
Go to Waypoint	Ctrl + J
Information Note	Alt + I
Line of Position	Alt + L
Mariner's Line	Alt + F
MOB	Alt + M
Monitor Route	Ctrl + T
Move a mariner object	Ctrl + M
Next Chart	Ctrl + Tab
Open World Map	Ctrl + W
Other Charts	Ctrl + Z
Select Route	Alt + S
Transferred line of position	Alt + P
Zoom Area	Ctrl + A

Zoom In	+ or F2
Zoom Out	- or F3
Zoom to Compilation Scale	Alt + Z

Chart Settings Toolbar	Ctrl + U
Chart Work Toolbar	Ctrl + H
Radar Settings Toolbar	Ctrl + I
Routes Toolbar	Ctrl + N
Symbols Toolbar	Alt + Y
Vessel Settings Toolbar	Alt + W
Zoom Range Toolbar	Alt + X

“I/O Configuration” dialog	Ctrl + C
“Information” window	F8
“Object Manager” dialog	Alt + O
“Open Chart” dialog	Ctrl + O
“Ownship Settings” dialog	Ctrl + V
“Planned Route Table” dialog	Alt + R
“Print” dialog	Ctrl + P
“Route Manager” dialog	Ctrl + R
“Settings” dialog	Ctrl + S
“Ships log” dialog	Ctrl + L
“Targets” dialog	Alt + T