AVCS ADMIRALTY Vector Chart Service

Using the ADMIRALTY Vector Chart Service with the PC Maritime ECDIS

This guide is based on the NAVMASTER ECDIS Version 7.1.0.27

The guide should be used in conjunction with the AVCS User Guide, as well as the ECDIS Operators Manual or other documentations as supplied by the equipment manufacturer

United Kingdom Hydrographic Office

Version 1.0

1	Data Management	3
2	The User Permit Number	3
3	The Public Key	4
4	Deleting ENC Data	5
5	Deleting ENC Permits	7
6	Installing ENC Permits	8
7	Installing AVCS DVDs	9
8	Installing AVCS Base CDs	10
9	Installing AVCS Update CD	11
10	Installing Exchange Set using USB media	12
11	Viewing an ENC	13
12	Installing AIO Permits	14
13	Installing AIO CD	15
14	Using the AIO	16
15	System Checks	17
16	Troubleshooting	18

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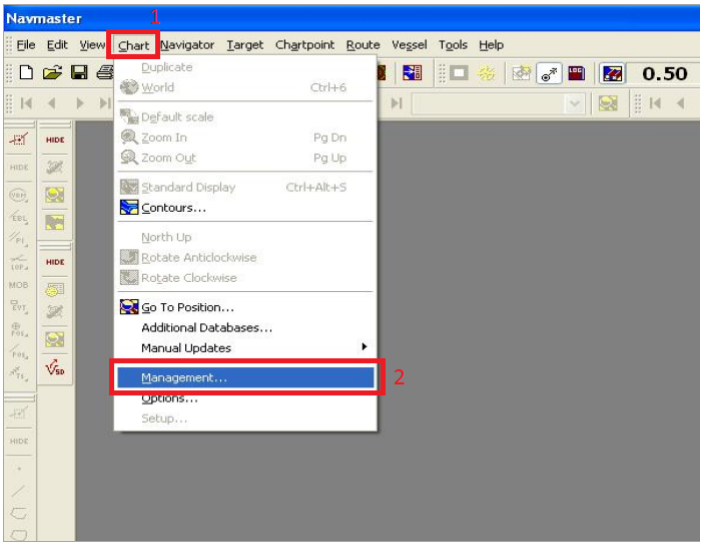
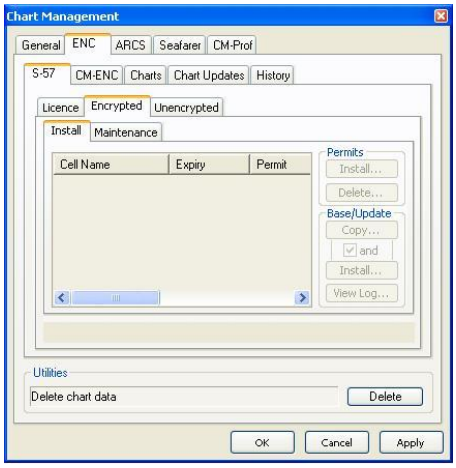
1 Data Management

All Data Management within the PC Maritime ECDIS is undertaken within the *'Chart Management'* window.

1. Select the *'Chart'* option from the menu at the top of the screen.
2. From the dropdown select *'Management…'*

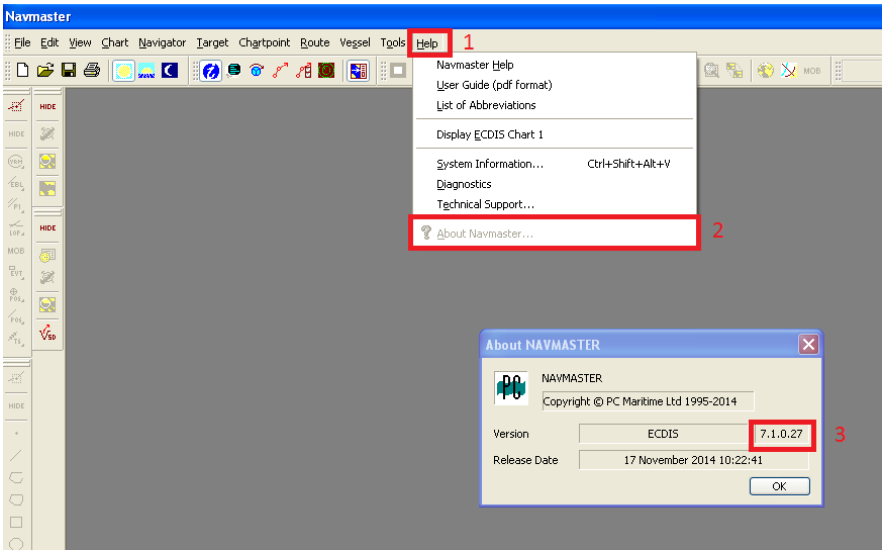


This will open the *'Chart Management'* window.

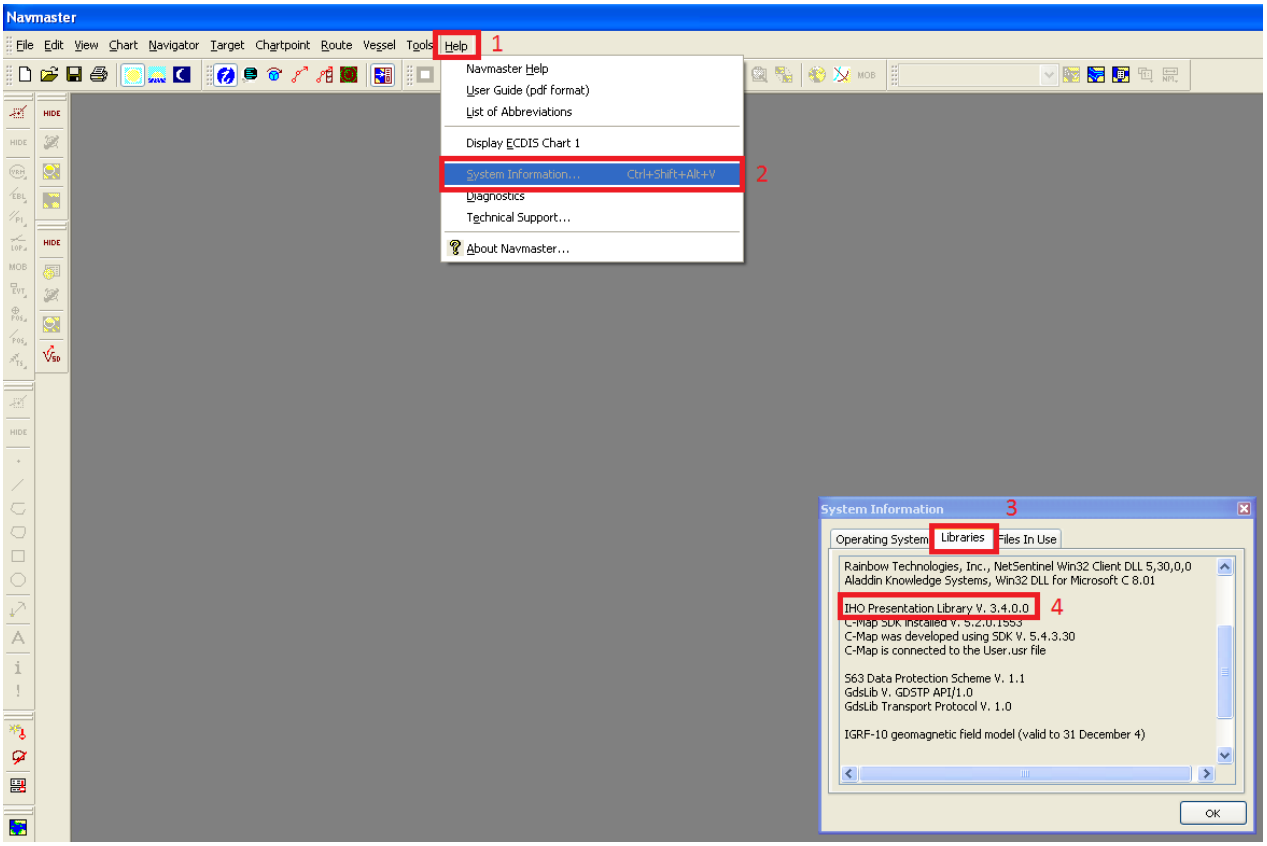


Note: All electronic chart licensing and data management operations are carried out through the *"Chart Management"* window.

To check the ECDIS Software Version:



To check Presentation Library (PL) Edition:

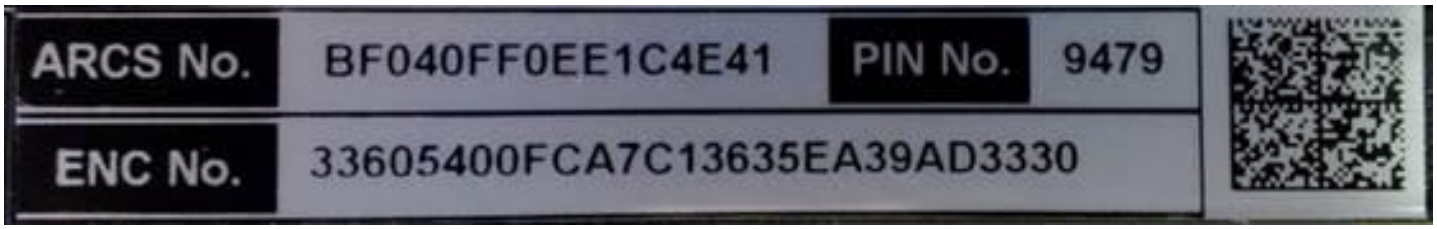


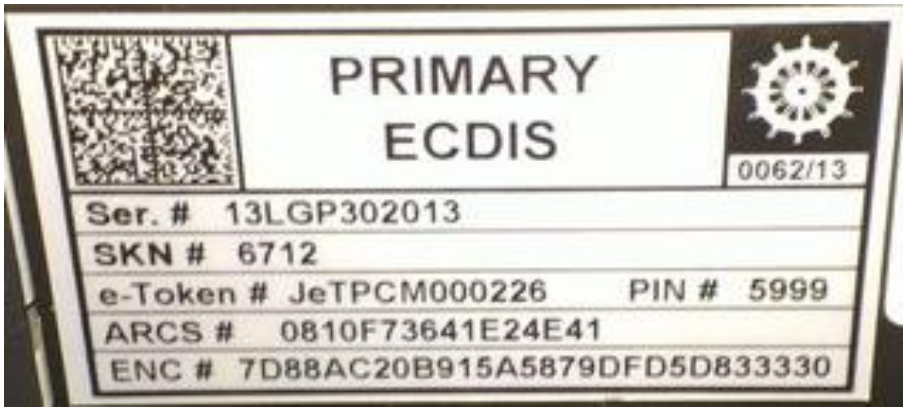
2 The User Permit Number (UPN)

The '*User Permit Number'* is a 28 character alphanumeric string that is unique to each ECDIS installation or group of ECDIS, e.g. multiple bridge installations. The *'User Permit Number'* should have been supplied at the time of delivery and must be used when ordering an AVCS license.

It is not possible to view or retrieve the User Permit Number from the PC Maritime NavMaster. The User Permit Number will have been provided at the time of installation and should be noted within the ECDIS User Manual.

The User Permit Number can be found on the processor label on the ECDIS case as below:



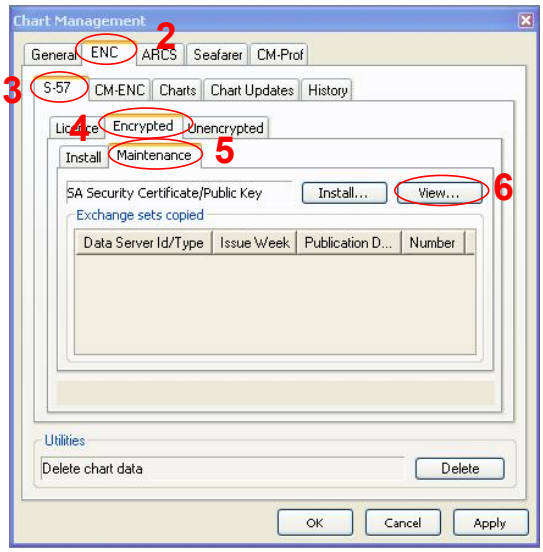


3 The Public Key

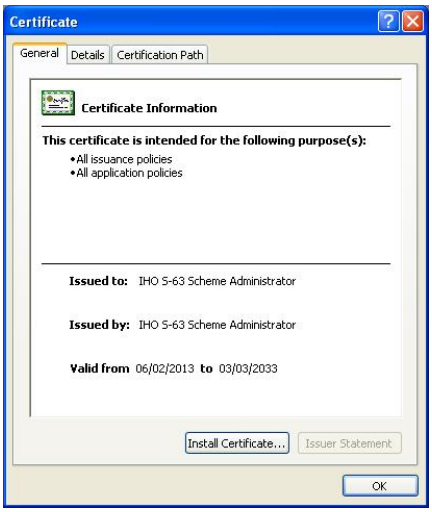
The Admiralty Vector Chart Service currently uses the IHO.CRT, issued by the International Hydrographic Organization, to authenticate its AVCS ENCs. The IHO Public Key is included in all AVCS media.

To view and install the IHO Public Key:

1. Select *'Management…'* from the *'Chart'* Menu
2. Select the *'ENC'* tab
3. Select *'S-57' tab*
4. Select the *'Encrypted'* tab
5. Select the *'Maintenance'* tab
6. Select *'View'*

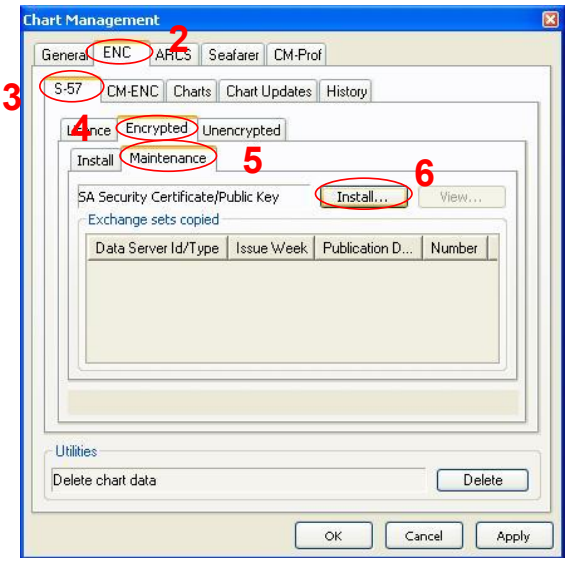


The installed Public Key will then be displayed.



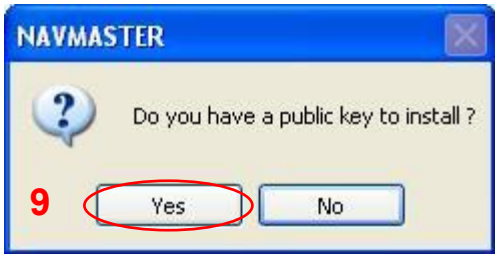
If the Public Key currently installed differs from the IHO.CRT the user will need to install the IHO.CRT. To do this insert any AVCS S63 1.1 Base or Update CD into your ECDIS and follow the steps below:

1. Select *'Management…'* from the *'Chart'* Menu
2. Select the *'ENC'* tab
3. Select the *'S-57'* tab
4. Select the *'Encrypted'* tab
5. Select the *'Maintenance'* tab
6. Select the *'Install'* tab

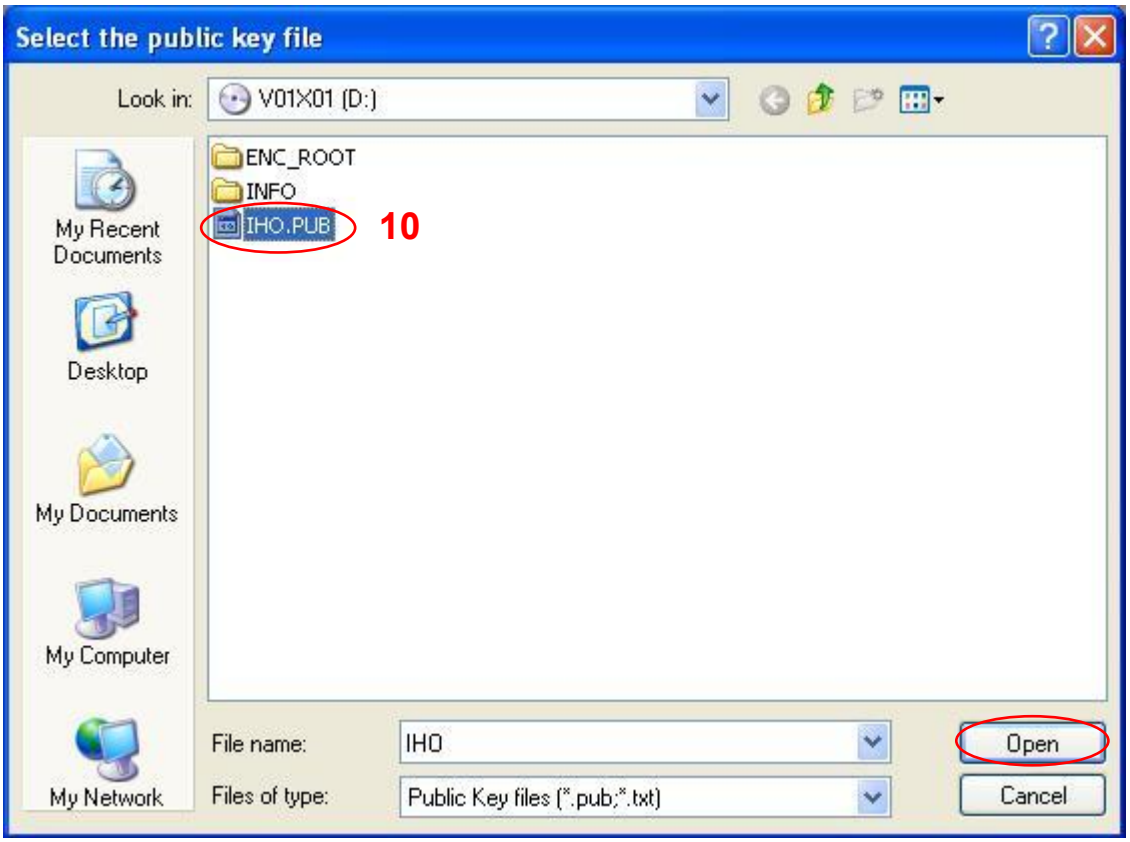


7. This will open a file selection dialog headed *'Select SA certificate file'*
8. Locate and select the IHO.CRT and click *'Open'*

9. You will then be asked *'Do you have a public key to install?'*. Click *'Yes'*.



10. Select the IHO.PUB file from the appropriate location and click *'Open'*.



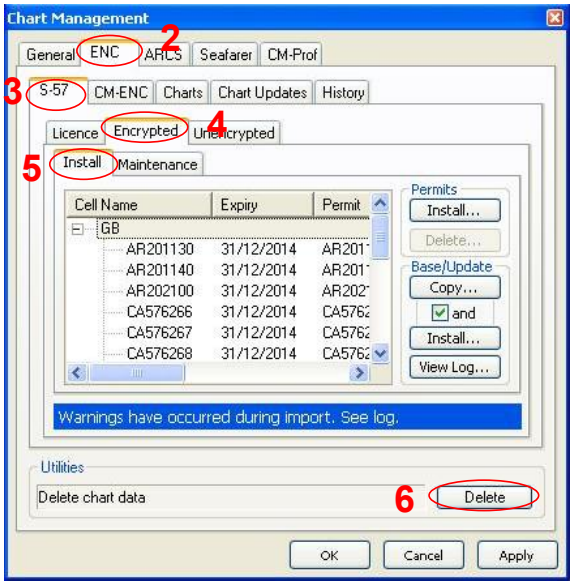
The IHO.CRT and the IHO.PUB files have now been installed and AVCS data can be loaded into the ECDIS.

4 Deleting ENC Data

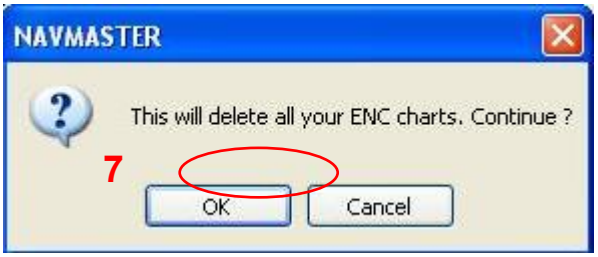
New AVCS customers who had previously subscribed to other ENC services are required to remove (purge) all ENC Permits and data from the system before installing AVCS.

To delete all ENCs data from the system:

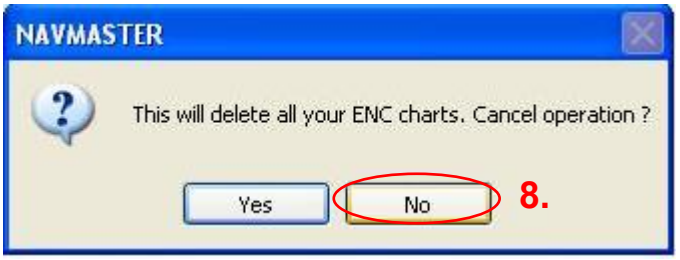
1. Select *'Management…'* from the *'Chart'* Menu
2. Select the *'ENC'* tab
3. Select the *'S-57' tab*
4. Select the *'Encrypted'* tab
5. Select the *'Install'* tab
6. Select *'Delete'*



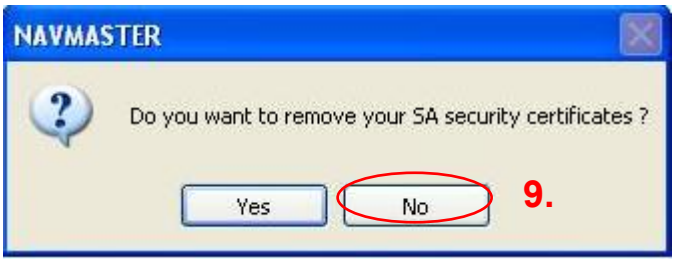
7. Select *'OK'*



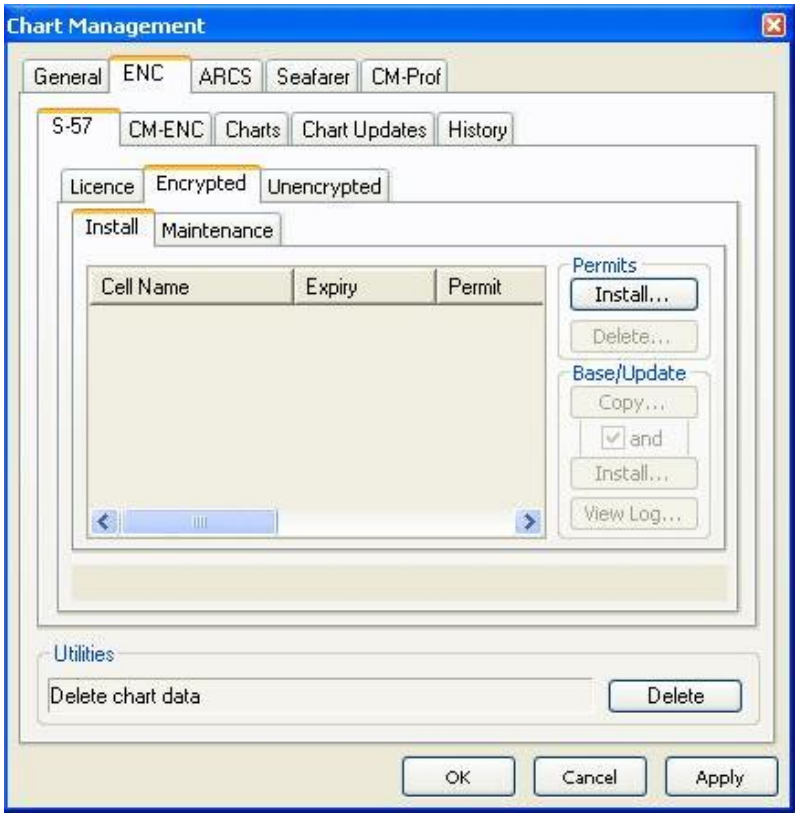
8. Select *'No'*



9. Select *'No'*



All ENC data will then be deleted from the system.



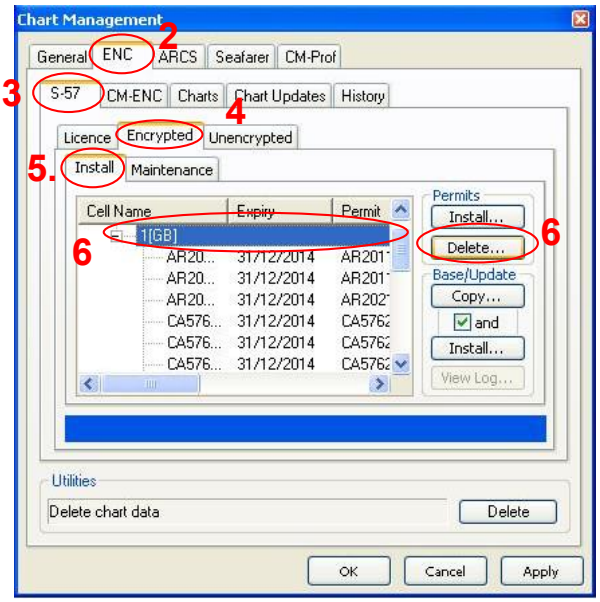
10. To delete selected ENC data from the system: Carry out the above steps but only select the ENCs that require deleting from the display table before selecting 'Delete' in Step 6.

5 Deleting ENC Permits

If the user has previously subscribed to another ENC service please remove these ENC permits from the ECDIS system before use. The user must select the cells for which permits are to be deleted. In most instances this will simply involve selecting all cells. In certain circumstances it may be required to remove permits for individual cells, in this case simply select the cells for which permits need to be deleted.

To delete ENC Permits:

1. Select *'Management…'* from the *'Chart'* Menu
2. Select the *'ENC'* tab
3. Select *'S-57' tab*
4. Select the *'Encrypted'* tab
5. Select the *'Install'* tab
6. Highlight the permit folder required for deletion and select the *'Delete'* option from the '*Permits'* section



7. Select *'OK'*

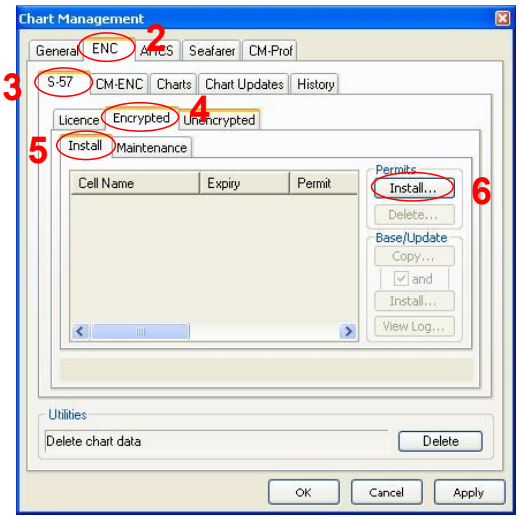
The selected permits will then be deleted.

6 Installing ENC Permits

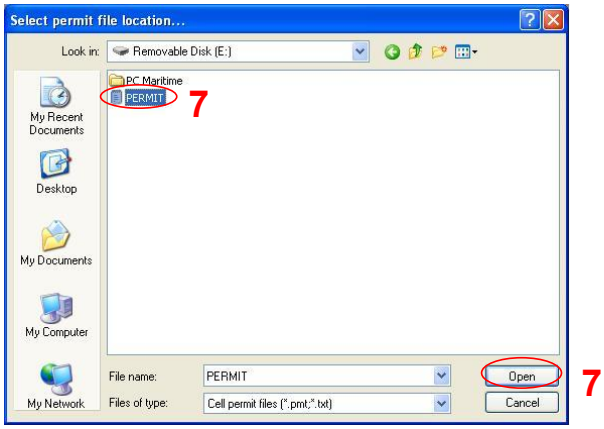
Note: *Ensure the correct Permit is installed into the ECDIS workstation.*

To install AVCS ENC Permits:

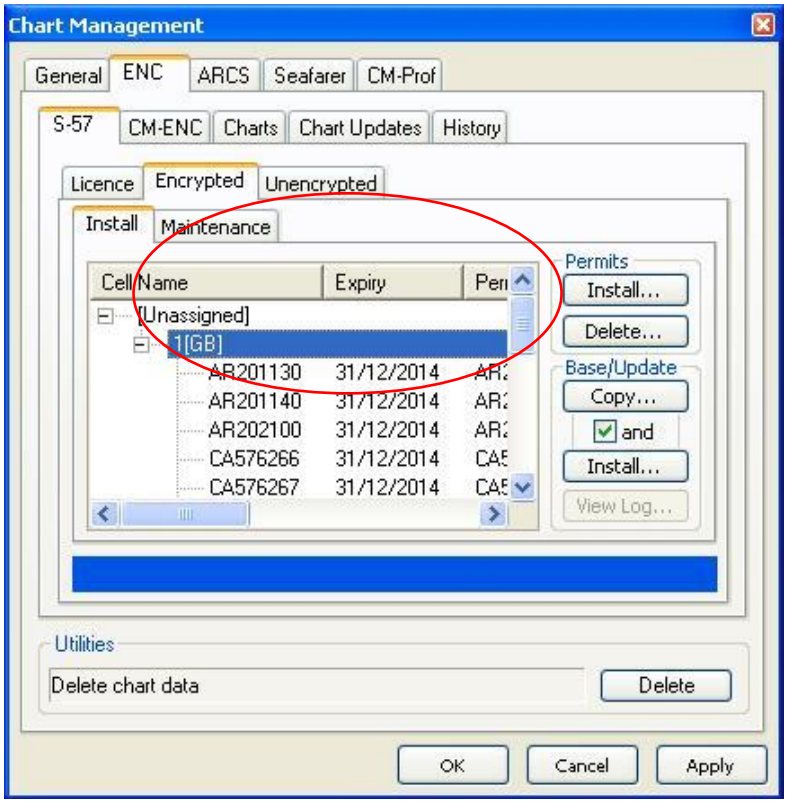
1. Select *'Management…'* from the *'Chart'* Menu.
2. Select the *'ENC'* tab
3. Select the *'S-57'* tab
4. Select the *'Encrypted'* tab
5. Select the *'Install'* tab
6. Select *'Install…'*



7. Locate and select the *'PERMIT.TXT'* file for installation and click *'Open'*



8. The ECDIS will then install the PERMIT.TXT file. The cell permits will display under a *'1[GB]'* folder within *'Chart Management'.*



7 Installing AVCS DVDs

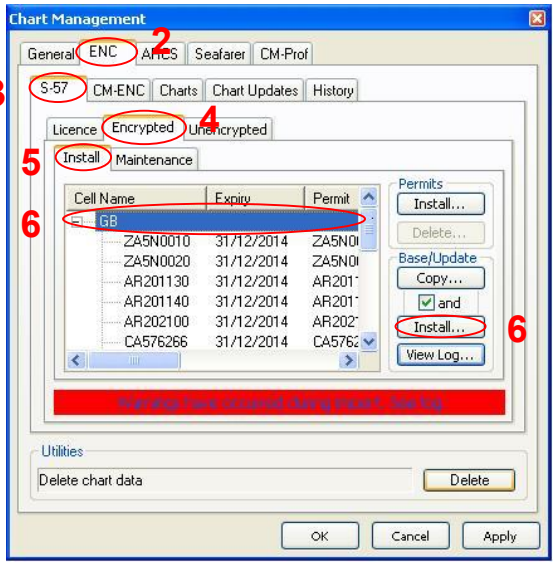
There are currently 2 *AVCS DVD Media*. ***AVCS DVD Media contain all the latest Base and Update data***. It is likely that users will need to install both DVDs in order to load all licensed ENCs. Reference to the *Schedule A* can avoid the unnecessary loading of both DVDs and save the user time.

The process described here should be used in almost all circumstances as it will automatically select data to be loaded according to the permit file installed by the user.

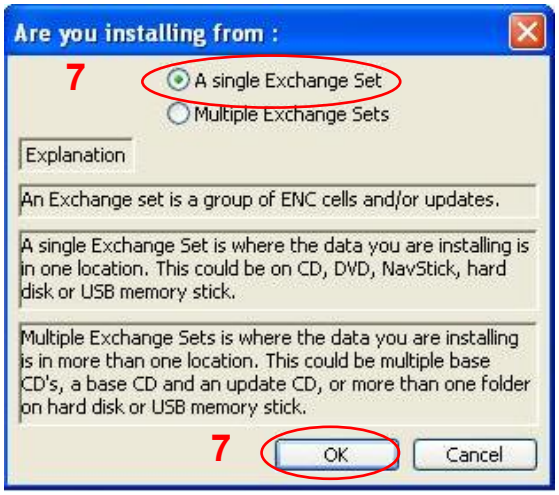
> ***Note:*** *Ensure the latest permits have been installed before attempting to install any data*

To install AVCS DVD Media:

1. Select *'Management…'* from the *'Chart'* Menu.
2. Select the *'ENC'* tab
3. Select the *'S-57'* tab
4. Select the *'Encrypted'* tab
5. Select the *'Install'* tab. Insert the AVCS DVD into the Drive
6. Select the *'GB'* folder that click *'Install..'*

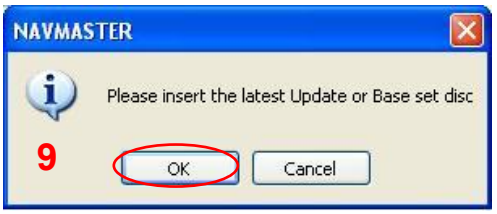


7. Select *'A single Exchange Set'* and *'OK'*

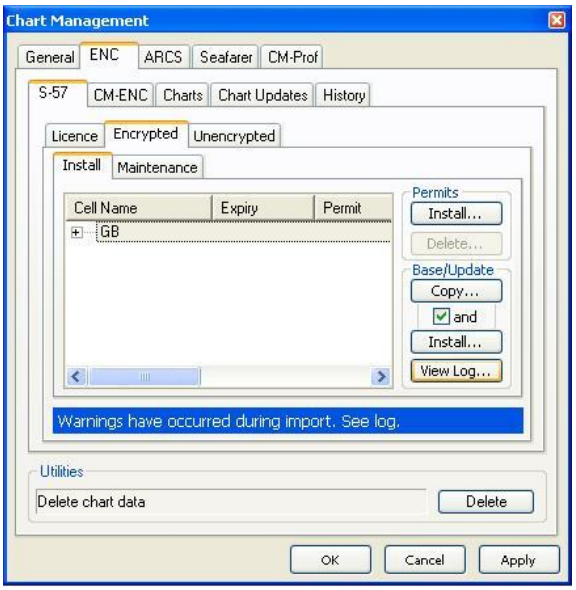


8. Select *'Drive'*

9. Insert the latest AVCS DVD into the drive and select *'OK'*



The ECDIS will then install all of the licenced AVCS cells from the AVCS DVD.



8 Installing AVCS Base CDs

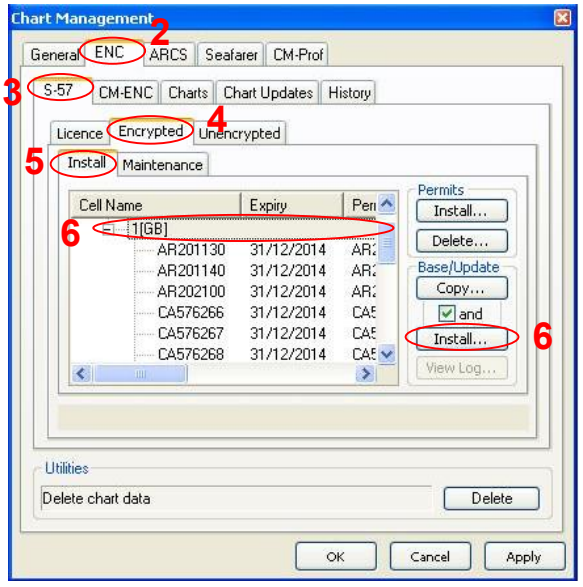
There are currently 9 *AVCS Base CDs* but this number will grow as more ENCs become available for distribution within AVCS. It is unlikely that users will need to install all of the CDs in order to load all licensed ENCs. Reference to the *Schedule A* can avoid the unnecessary loading of some CDs and save the user time.

The process described here should be used in almost all circumstances as it will automatically select data to be loaded according to the permit file installed by the user.

***Note:** Ensure the latest permits have been installed before attempting to install any data*

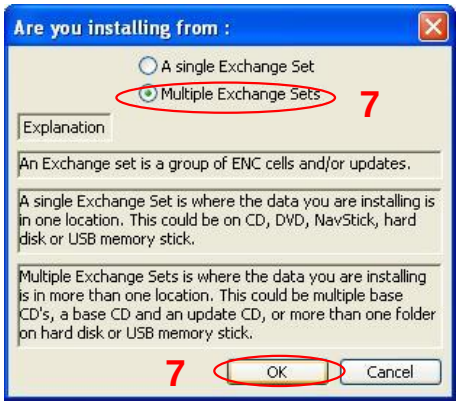
To install AVCS Base CD:

1. Select *'Management…'* from the *'Chart'* Menu
2. Select the *'ENC'* tab
3. Select the *'S-57'* tab
4. Select the *'Encrypted'* tab
5. Select the *'Install'* tab. Insert the first AVCS Base CD into the drive.
6. Select the *'1[GB]'* folder and click *'Install..'*.



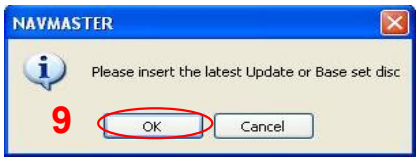
Note: *If the 'Copy…' and 'Install…' buttons are greyed out then AVCS permits have not been installed*

7. Select *'Multiple Exchange Sets'* and click *'OK'*

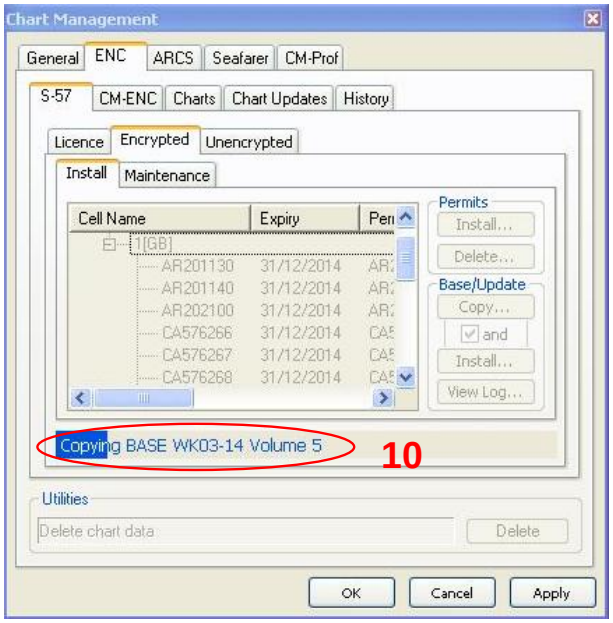


8. Select *'Drive'* from the *'Chart Source Selection'* window

9. Make sure that the latest AVCS Base media is in the CD Drive and click *'OK'*



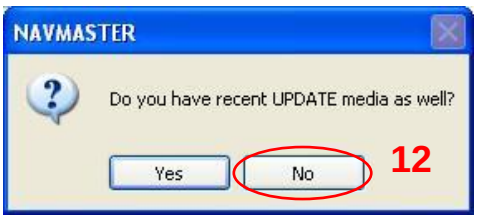
10. *'Chart Management'* will then copy the required data from the AVCS Base media



11. Once completed the ECDIS will ask for the next AVCS Base media. Insert the AVCS Base media relating to the message and click *'OK'*

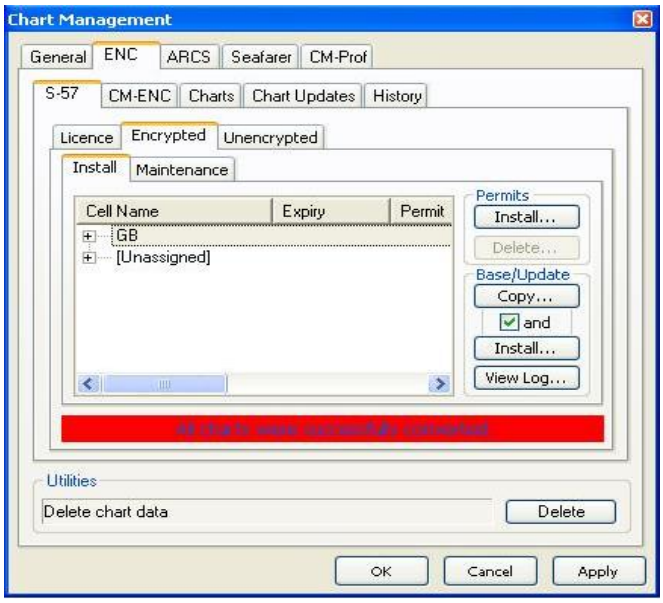
Note: *Only install the AVCS Base Media required as per the **Schedule A**. If the AVCS Base Media mentioned in the 'Navmaster' message does not require installation click 'Cancel', this will then change to the next AVCS Base Media in numerical order. Repeat the process as required*

12. The NavMaster will then ask whether you have recent update media. Select *'No'.*



Note: *It is possible to install AVCS Update Media at this point if required. Simply insert the AVCS Update Media as directed and select 'Yes' this will then copy the Update Media across and then install all copied data.*

The NavMaster ECDIS then completes the installation.



Note: *Make sure that all the required AVCS Base CDs have been inserted and the import operations completed before installing the latest Update CD. Updates cannot be applied unless the ENC base file is present in the system database.*

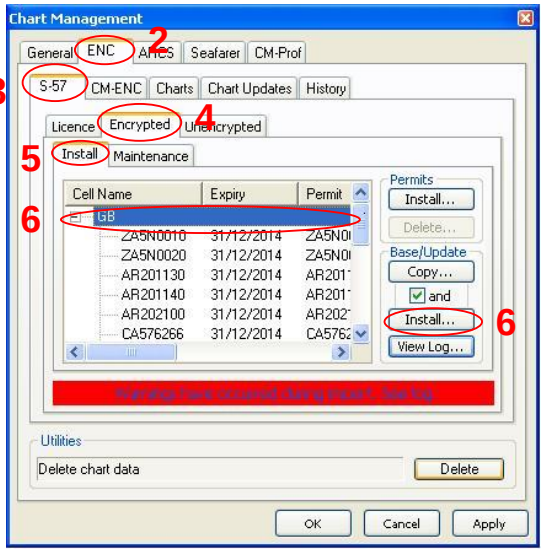
9 Installing AVCS Update CD

Note: The AVCS update disc will indicate which Base disc week must have been installed. It is important that users do not attempt to load an Update CD that is not consistent with the Base CDs

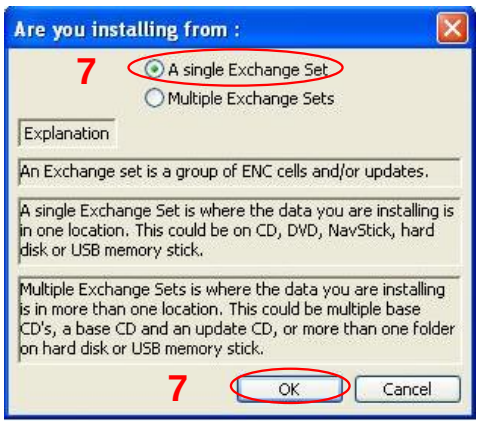
Note: *Check the AVCS Update CD for the required Base CDs to be applied first.*

To install AVCS Update CD:

1. Select *'Management…'* from the *'Chart'* Menu.
2. Select the *'ENC'* tab
3. Select the *'S-57'* tab
4. Select the *'Encrypted'* tab
5. Select the *'Install'* tab. Insert the AVCS Update CD into the Drive
6. Select the *'1[GB]'* folder that click *'Install..'*

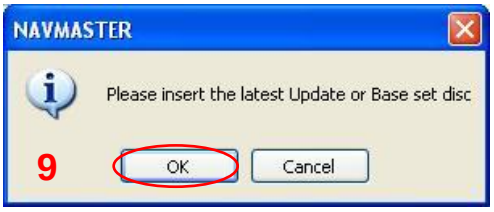


7. Select *'A single Exchange Set'* and click *'OK'*



8. Select *'Drive'*

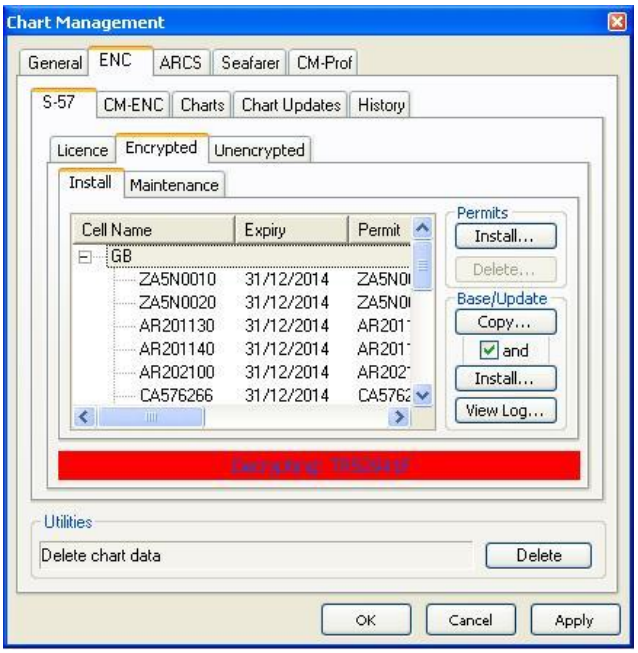
9. Insert the latest AVCS Update CD and click *'OK'*



10. Insert the Base CD requested and click *'OK'*

Note: Repeat this step if directed to do so by the ECDIS.

11. The update will then complete and any updates will be applied.



10 Installing Exchange Set using USB Stick

The exchange set contained the latest Notices to Mariners' corrections, New Editions and New Charts issued since the last update for their AVCS holdings. The exchange set can be downloaded using online chart updating software.

To install AVCS/AIO Exchange Set using USB Stick:

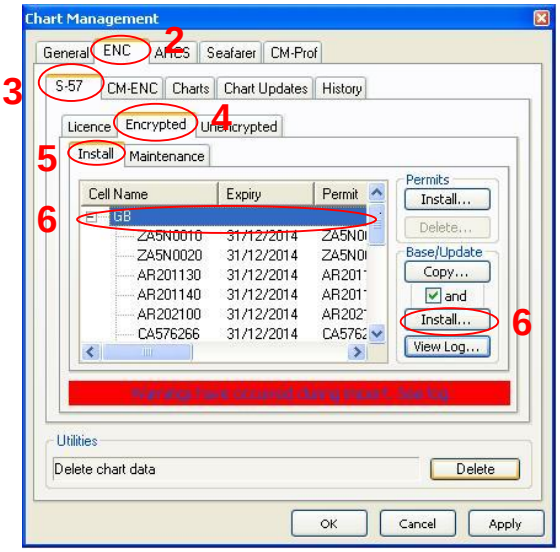
Note: Do not save PERMIT.TXT together with the ENC/AIO Exchange Set.

Note: The AVCS update disc will indicate which Base disc week must have been installed. It is important that users do not attempt to load an Update CD that is not consistent with the Base CDs

***Note:** Check the AVCS Update CD for the required Base CDs to be applied first.*

To install AVCS Update CD:

1. Select *'Management…'* from the *'Chart'* Menu.
2. Select the *'ENC'* tab
3. Select the *'S-57'* tab
4. Select the *'Encrypted'* tab
5. Select the *'Install'* tab. Insert the USB into the ECDIS
6. Select the *'1[GB]'* folder that click *'Install..'*



7. Select *'A single Exchange Set'* and click *'OK'*

8. Select *'Browse'*

9. *Locate the folder within the exchange set named "V01X01".*

Note: Repeat this step if directed to do so by the ECDIS.

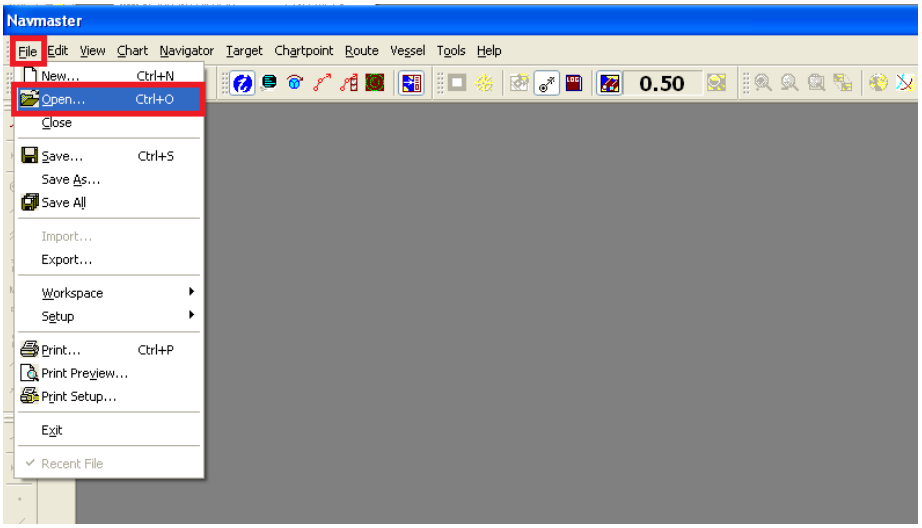
10. The update will then complete and any updates will be applied.

11 Viewing an ENC

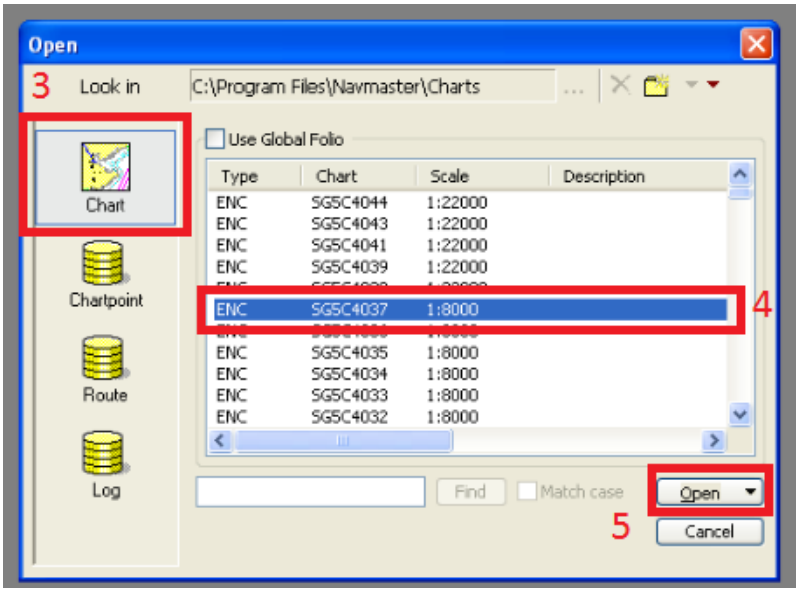
To view ENC data:

1. Select "File"

2. Select "Open"



3. Select "Chart" under the "Look in" table.



4. Highlight the ENC in the selection table.

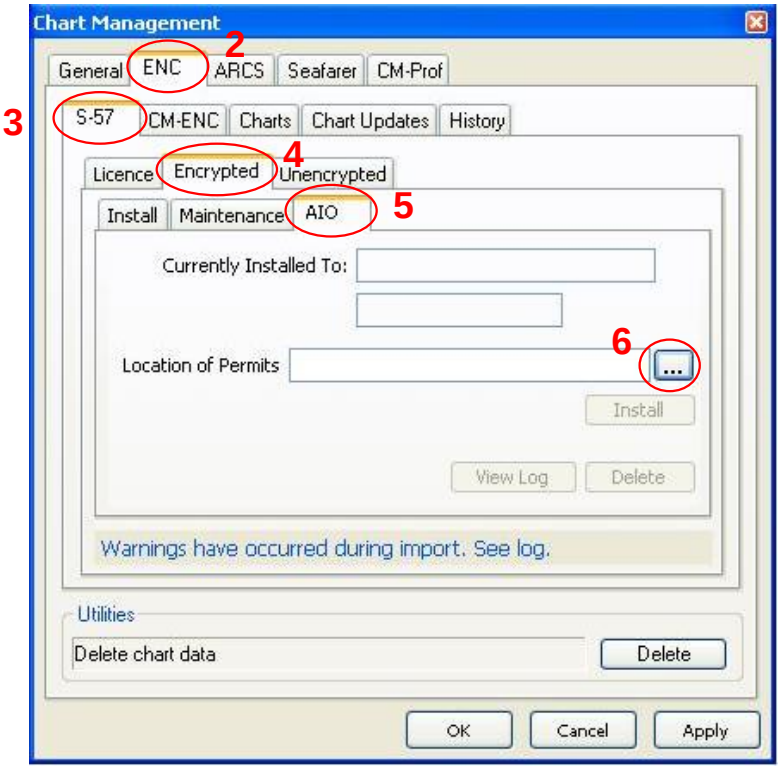
5. Select "Open".

12 Installing AIO Permits

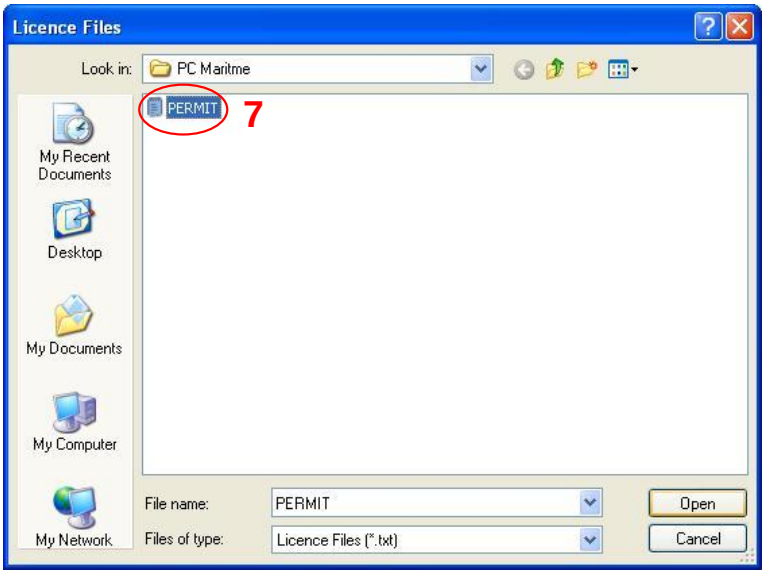
To install AIO Permits:

The Admiralty Information Overlay (AIO) should only be installed when the relevant AVCS S-63 1.1 Data has been installed. The PC Maritime ECDIS links the AVCS and AIO data and therefore both sets of data should be of the same week.

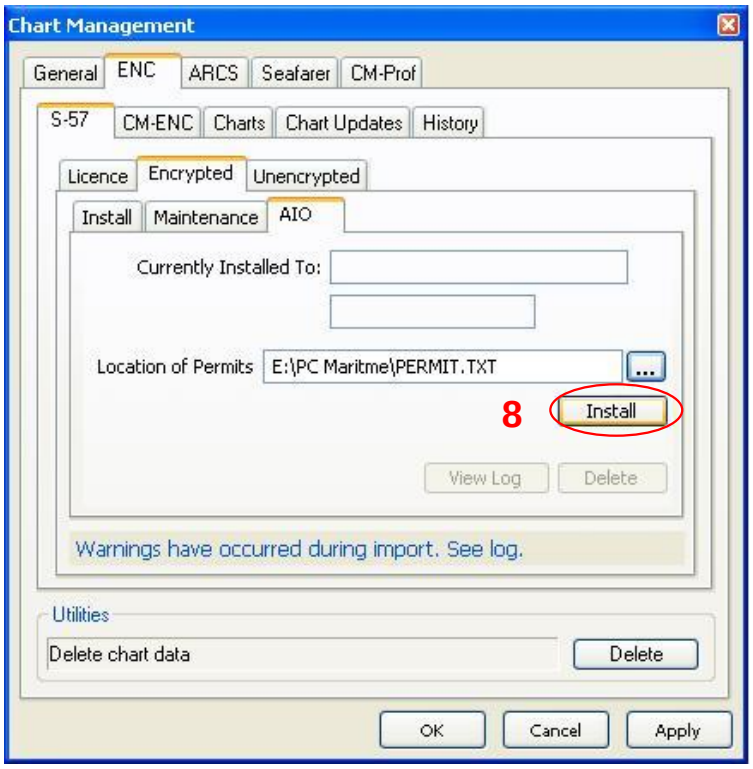
1. Select *'Management…'* from the *'Chart'* Menu.
2. Select the *'ENC'* tab
3. Select the *'S-57'* tab
4. Select the *'Encrypted'* tab
5. Select the *'AIO'* tab
6. Select the *'…'*



7. Locate and select the *'PERMIT.TXT'* file for installation and click *'Open'*



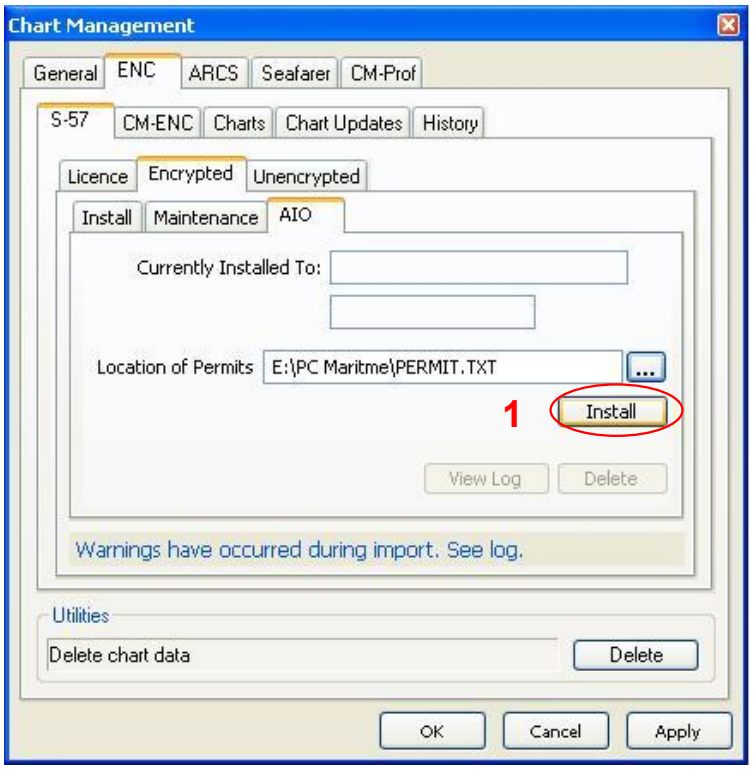
8. Select *'Install'*



13 Installing AIO CD

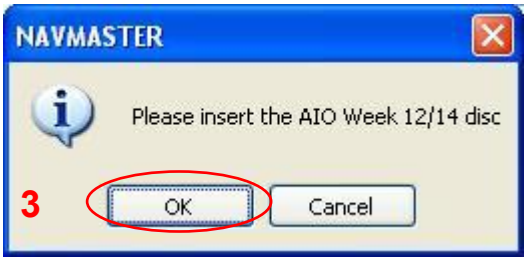
To install AIO CD:

1. Select *'Install'*



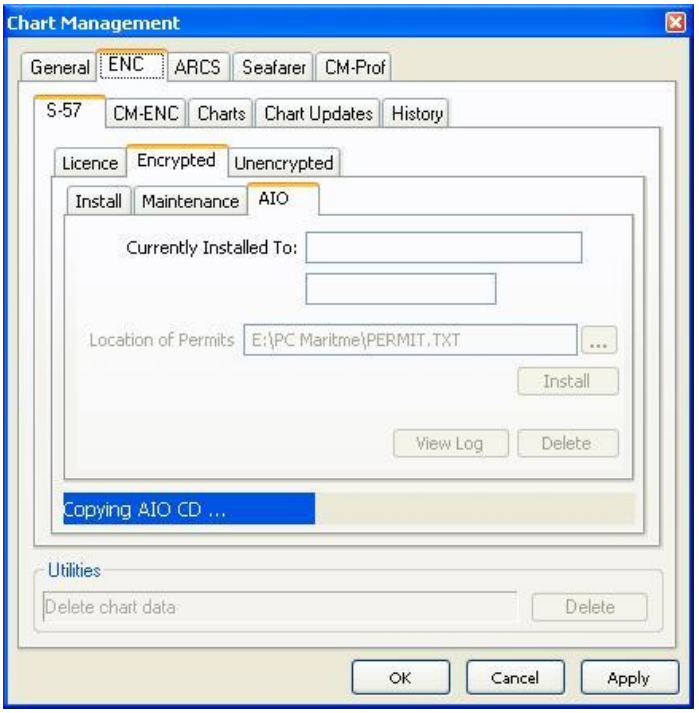
2. Select *'Drive'*

3. Insert the AIO Media as requested and select *'OK'*

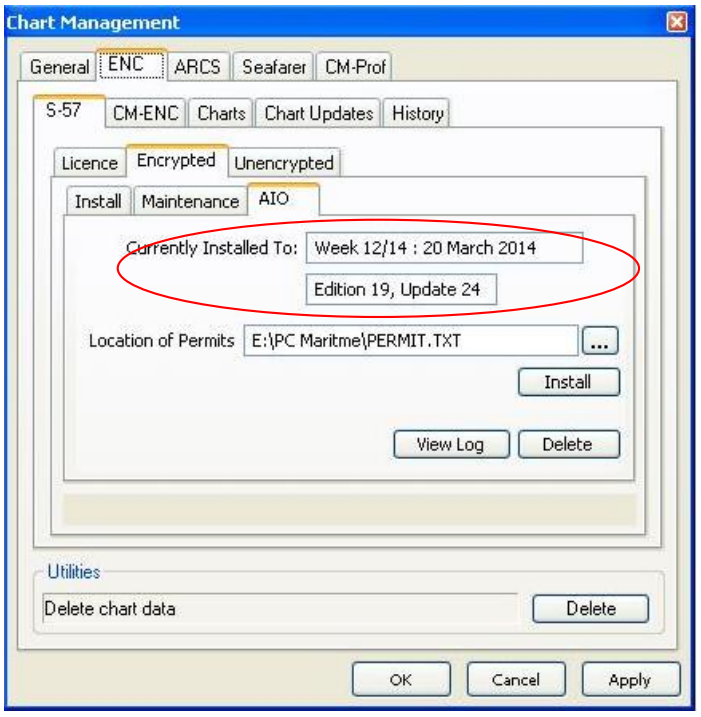


Note: To successfully install the AIO the data must be of the same week as the AVCS data that has been installed.

The AIO data will then start to install.

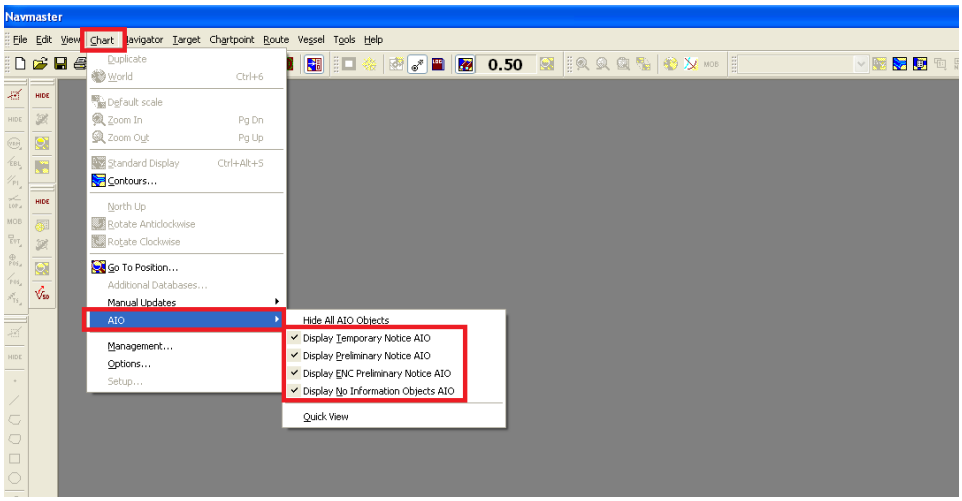


Once completed the PC Maritime ECDIS will display the week number of the data that is currently installed as well as the Edition and Update number of the installed data.

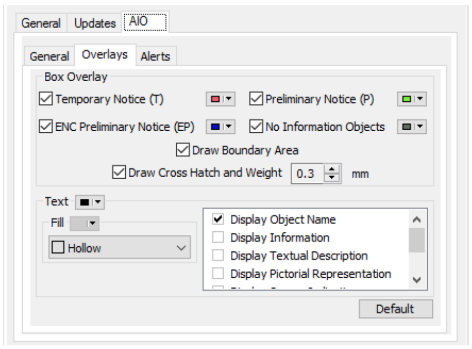


14 Using the AIO

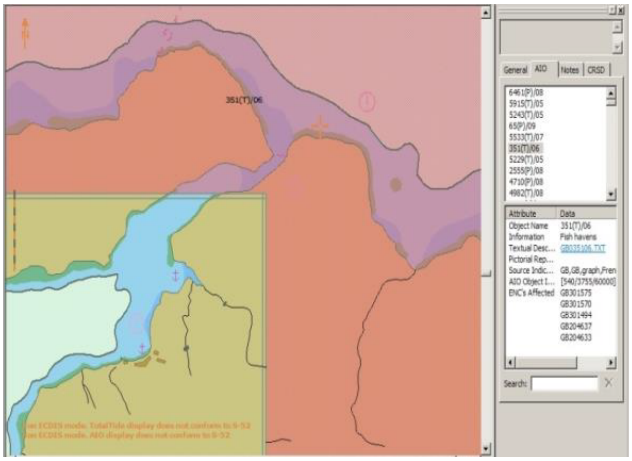
To enable AIO data:



To view AIO data:



Once you have completed the above steps and enabled the AIO the user will see the default red polygons as shown below. The AIO number is shown in black text centralized over the polygon. The information can be interograted as shown in the right hand table.



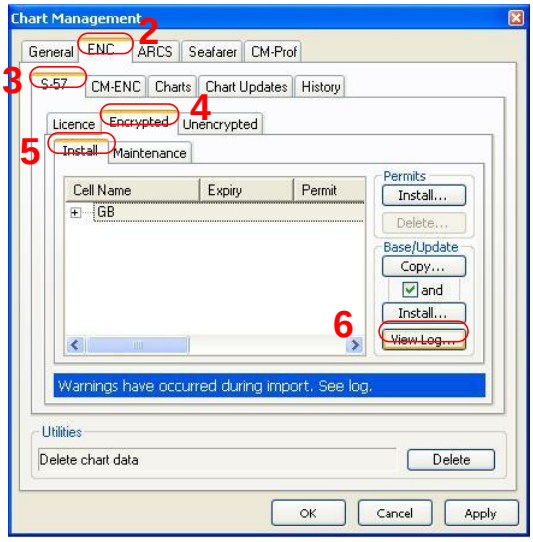
15 Systems Checks

The user has the option to review the status of all installed ENCs from within the *ECDIS Chart Portfolio* dialog as follows:

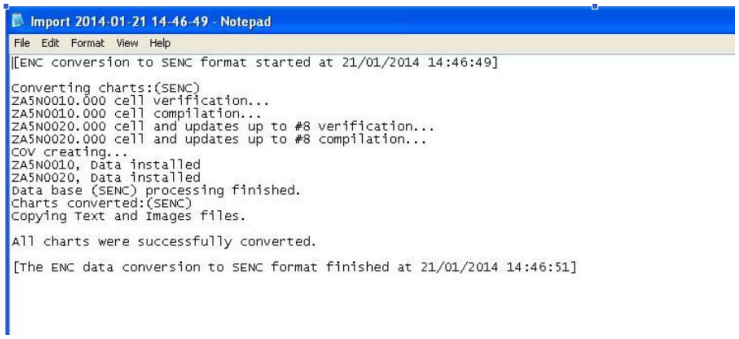
To generate the installed charts status report:

The PC Maritime NavMaster will produce a log at the end of every install action whilst in *'Chart Management'*. This report log provides the User with information about the process that has just completed, within this report details can be obtained relating to any issues encountered during the install or update of ENC's. This can be extremely useful to identify why cells have failed to install. To view the log file follow the below instructions.

1. Select *'Management…'* from the *'Chart'* Menu.
2. Select the *'ENC'* tab
3. Select the *'S-57'* tab
4. Select the *'Encrypted'* tab
5. Select the *'Install'* tab.
6. Select *'View Log'*



The ECDIS will then display the most recent log for review.



16 Troubleshooting

Many of the difficulties that could be experienced when using the Admiralty Vector Chart Service with this system can be avoided by carefully following the instructions in this guide. However, issues that are known to have caused confusion in the past are detailed in the Frequently Asked Questions (FAQ) section which can be found at:

http://www.admiralty.co.uk

If you encounter problems that are not solved by referring to the FAQs, you may wish to seek Technical Support. Please see the section below for contact details.

Who should you contact?

You will receive the most effective support if you address your initial query to either the Manufacturer of your ECDIS equipment or the Chart Agent you obtain your AVCS charts from, but in certain circumstances you may need to contact the UKHO Customer Services.

Problem	Contact
Hardware problems: difficulties with the keyboard, mouse, display or main system console, failure of a floppy disk or CD drive.	ECDIS Manufacturer
Software problems: difficulties with configuring or using the ECDIS system software, interfacing problems.	
Chart installation problems: problems with installing certificates, permits and AVCS ENCs, standard error codes displayed (see AVCS User Guide).	Admiralty Chart Agent
Chart content problems: display anomalies or mismatched data displays.	
Problems that have not been resolved by your Admiralty Chart Agent.	UKHO Customer Services

When reporting a chart related problem it is useful if you can provide the following details :

> Licence number
> Vessel name
> IMO
> ECDIS/Software Manufacturer
> ECDIS software version
> Details of error message – Including ‘SSE’ error code
> Screen shot(s) of error
> Details of Base CD or DVD Discs used (week)
> Details of Update CD used (week)
> Details of Permits used (week)
> Details of Cell number(s) errors apply to
> Have there been any configuration changes to system(s)
> Details of User Permit(s) and PIN Number(s)

Emergency Chart Permit Generation

In certain circumstances it may be necessary for a vessel to get access to an AVCS chart at very short notice, for instance if a route needs to be **diverted due to a medical or safety emergency**.

In these emergency circumstances only, individual AVCS ENC Permits can be obtained from the UKHO **24 hours a day, 365 days a year.**

To obtain an AVCS emergency permit please quote:

- Vessel Name
- ECDIS User Permit Number
- Required ENC(s)

These permits can be transmitted direct to the vessel by email wherever possible or by simply reading the characters out over the telephone or radio.

Support Hours: 0600-2200 Monday -Friday	Telephone:	+44 (0)1823 484444
	Email:	customerservices@ukho.gov.uk
	Contact:	UKHO Customer Services
	Web:	https://www.admiralty.co.uk/

Feedback

We hope this User Guide assists you in using the ADMIRALTY Vector Chart Service with this system. If you have any feedback on the content of this particular guide, or the online FAQs, please forward your comments to your ADMIRALTY Chart Agent or directly to UKHO Customer Services.

About us

The United Kingdom Hydrographic Office is a leading provider of global marine geospatial data.
We help to inform maritime decision-making for navigation, infrastructure development and the management of marine resources.

Serving users worldwide

Our world-leading location based information is available through ADMIRALTY Maritime Data Solutions to users worldwide.
For more information, contact our global network of ADMIRALTY Chart Agents. Alternatively, contact our customer service team.

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Find out more about our market-leading ADMIRALTY Maritime Products & Services:
admiralty.co.uk