

The AVCS logo consists of the letters 'AVCS' in white, bold, sans-serif font, centered within a solid magenta rectangular background.

ADMIRALTY
Vector Chart Service

Using the ADMIRALTY Vector Chart Service with the Danelec ECDIS – DM800 ECDIS G2

This guide is based on Danelec ECDIS – DM800 ECDIS G2 Version 3.04.

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

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1 Data Management

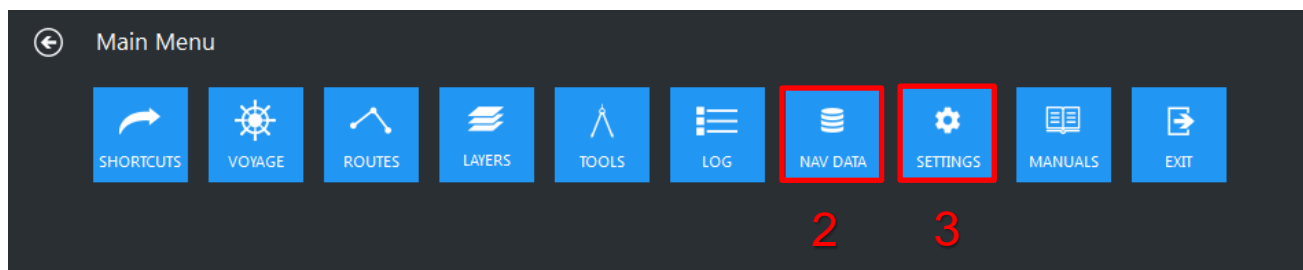
All electronic navigational charts (ENCs) licensing and data management operations are carried out through the **Main Menu**.

To access to Main Menu:

1. Click **Main Menu** Icon at bottom left of the main display.
2. **Nav DATA** function manages the Licence and Chart data installation.
3. **SETTINGS** function manages the chart, vessel and system information.

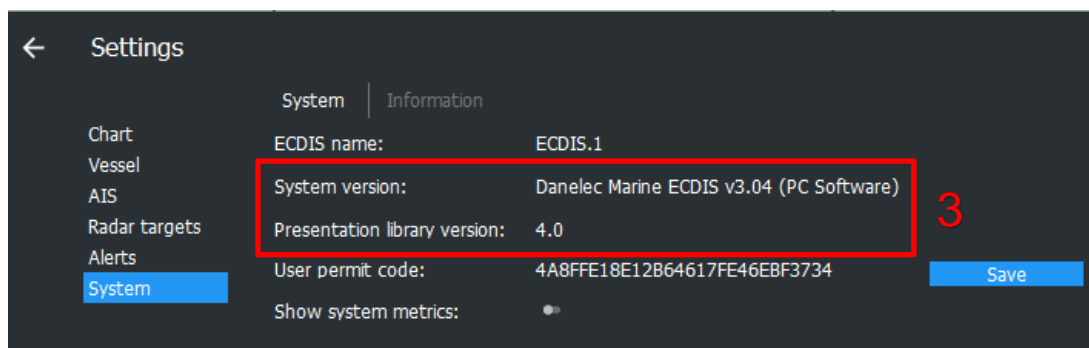
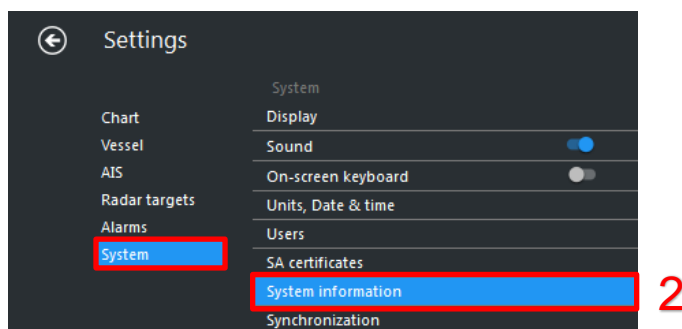


1



To check ECDIS Software Version and Presentation Library (PL) Version:

1. Go to **Main Menu** then click **SETTINGS**.
2. Go to **System** then click **System information**
3. At **System information** window, check the ECDIS software and PL version.

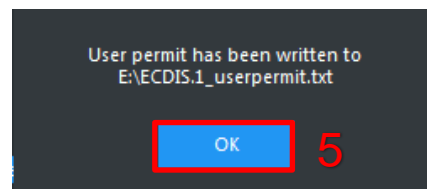
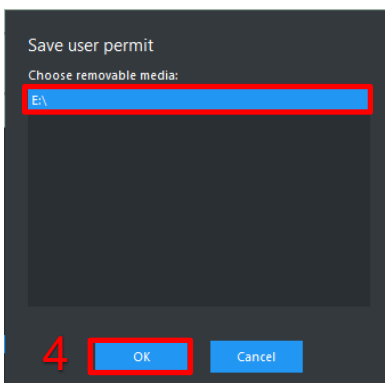
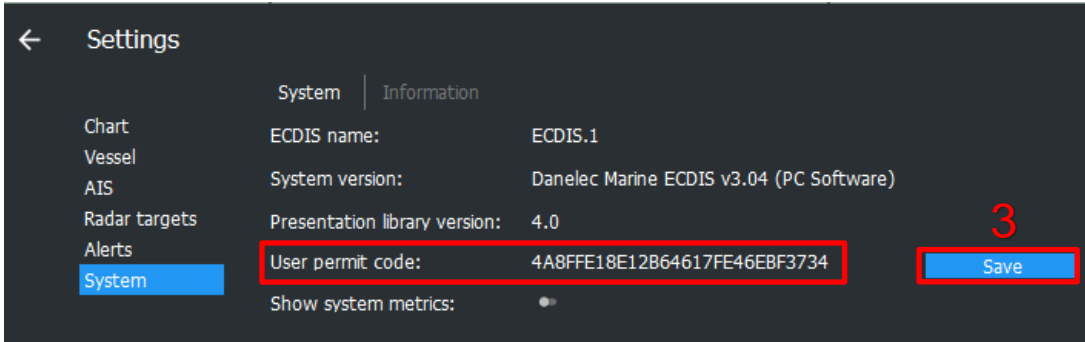
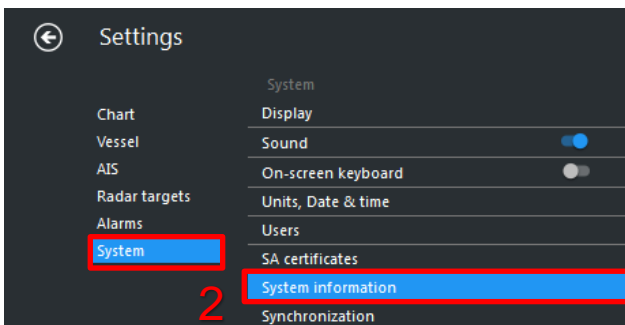


2 The User Permit Number

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 licence.

To copy the User Permit Number into USB stick media:

1. Go to **Main Menu** then click **SETTINGS**.
2. Go to System then click **System information** and check **User permit code**.
3. Insert virus free empty USB stick media then click **Save**.
4. Browse to the removable media drive (USB Stick drive) then click **OK**.
5. Once UPN is saved successfully into USB Stick Media, click **OK** to end.

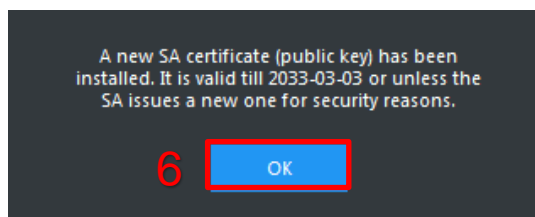
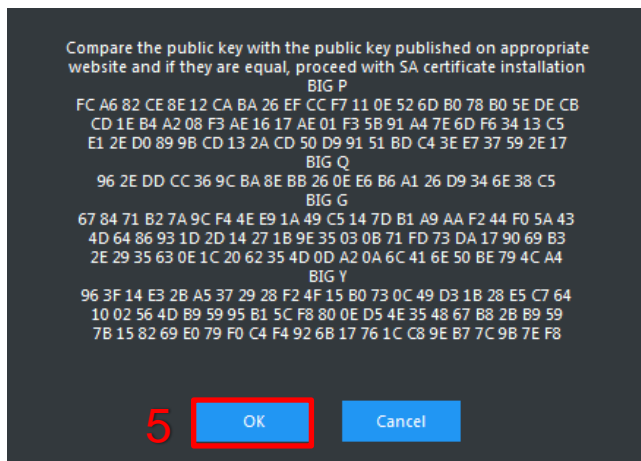
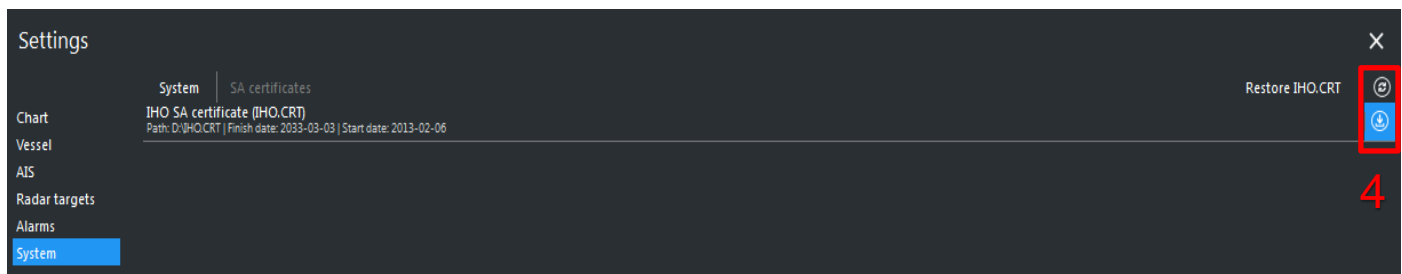
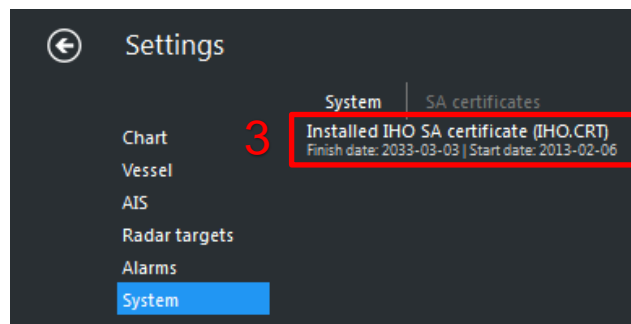
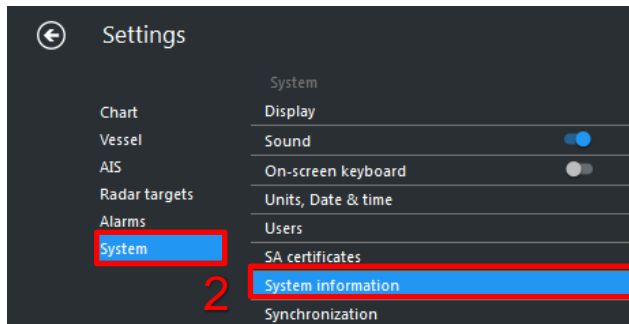


3 The Public Key

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

To install the IHO Public Key:

1. Go to **Main Menu** then click **SETTINGS**.
2. Go to **System** then click **SA certificates**.
3. Check the **Finish date** for Installed IHO SA certificate (IHO.CRT). If it has expired, click **Dustbin** icon to remove the expired SA certificate.
4. Insert the latest AVCS DVD/CD Media then click **Refresh** icon to search the IHO.CRT file within the removable drive. Click **Download** icon to install IHO SA Certificate.
5. System will prompt you IHO SA Certificate information. Click **OK**.
6. System will prompt new IHO SA Certificate has been installed and expiring date. Click **OK** to end.



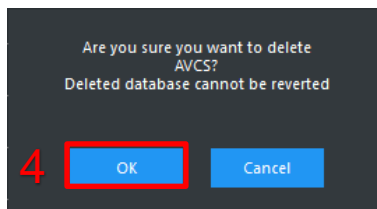
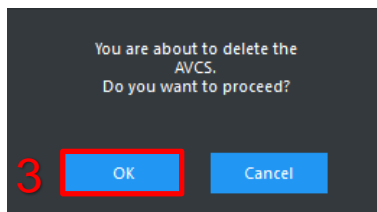
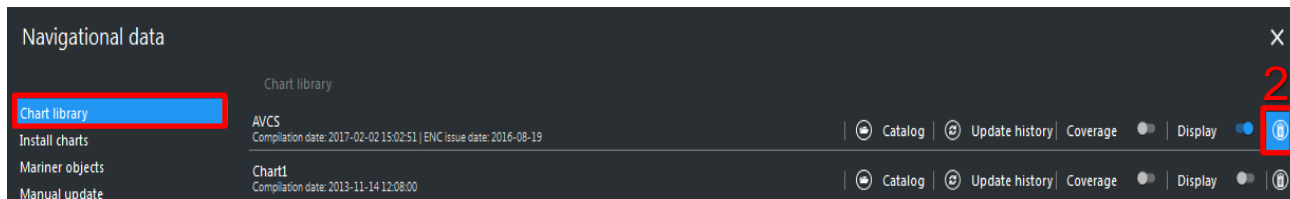
4 Deleting ENC Data

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.

Note: Do not delete Chart1 and OVERVIEW database.

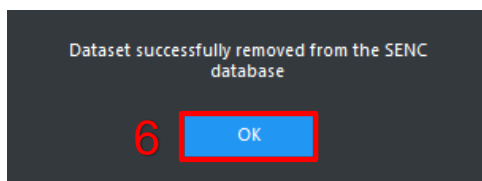
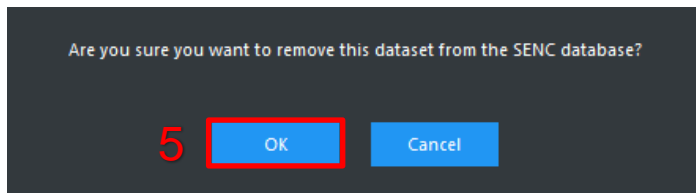
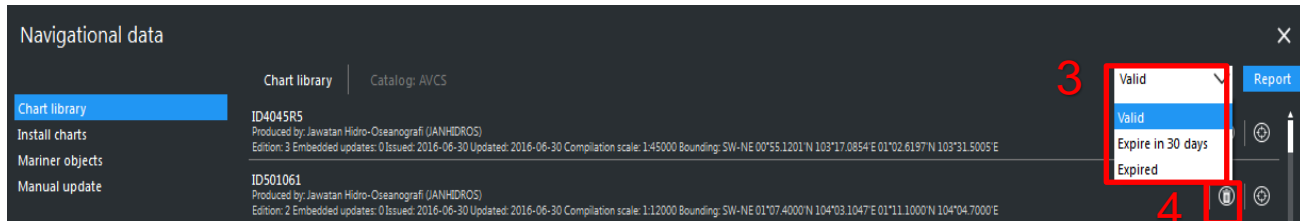
To delete all ENC's data from the system:

1. Go to **Main Menu** then click **NAV DATA**.
2. Go to **Chart library** then click **Dustbin** icon to remove the installed chart database. (For example: AVCS)
3. System will prompt you asking confirmation for deletion of database. Click **Yes**.
4. System will prompt you informing 'Deleted database cannot be reverted'. Click **Yes**.
5. Once the Charts data are deleted, deleted chart database is not available at Chart Library.



To delete selected ENC and AIO (GB800001) data from the system:

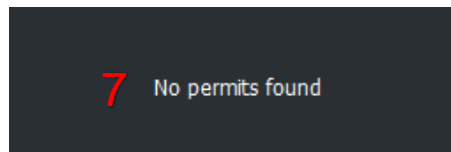
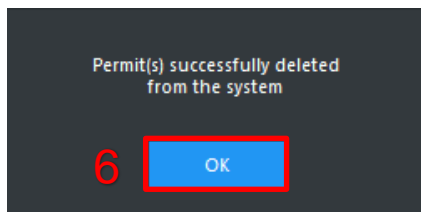
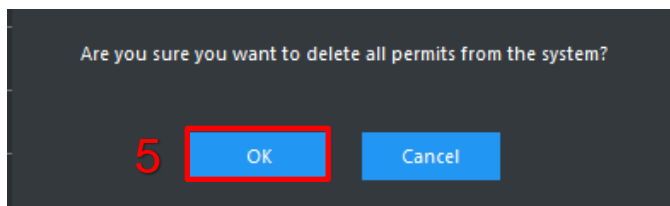
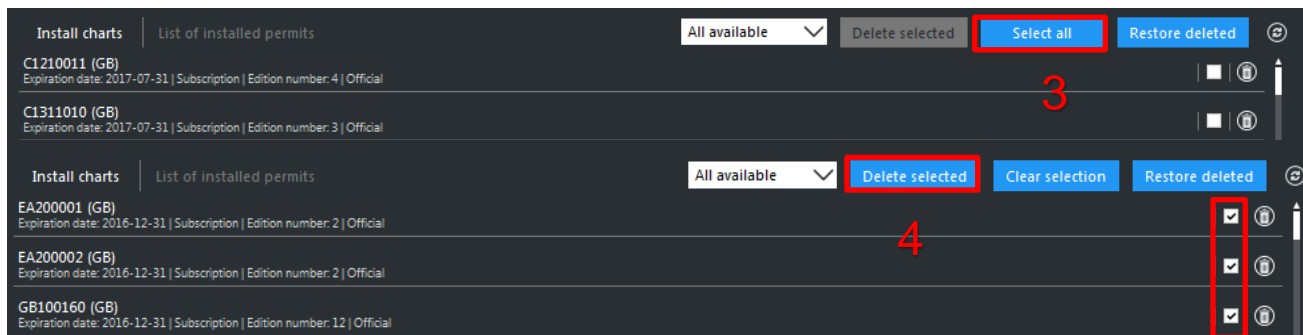
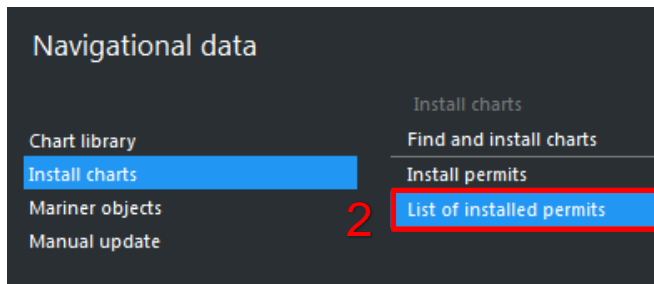
1. Go to **Main Menu** then click **NAV DATA**.
2. Go to **Chart library** then click Chart Database's **Catalog**. (For example: AVCS)
3. User can filter Chart library based on permit status – **Valid, Expire in 30 days or Expired**.
4. Browse to Cell Name(s) and click **Delete** (Dustbin icon) to remove the installed chart dataset.
5. System will prompt you asking confirmation for deletion of dataset. Click **Yes**.
6. System will prompt you informing 'Deleted database cannot be reverted'. Click **Yes**.
7. Once the Charts data are deleted, deleted chart data is not available at Chart Library.



5 Deleting ENC Permits

To delete ENC Permits:

1. Go to **Main Menu** then click **NAV DATA**.
2. Go to **Install charts** then click **List of installed permits**.
3. Click **Select all** to select all licence permits.
4. Click **Delete selected** to remove installed permits.
5. System will prompt you asking confirmation for deletion of all permits. Click **Yes**.
6. System will prompt you informing 'Permit is successfully deleted from system'. Click **OK**.
7. Once all permits are deleted, **No permits found** message will be display at **List of installed permits**.

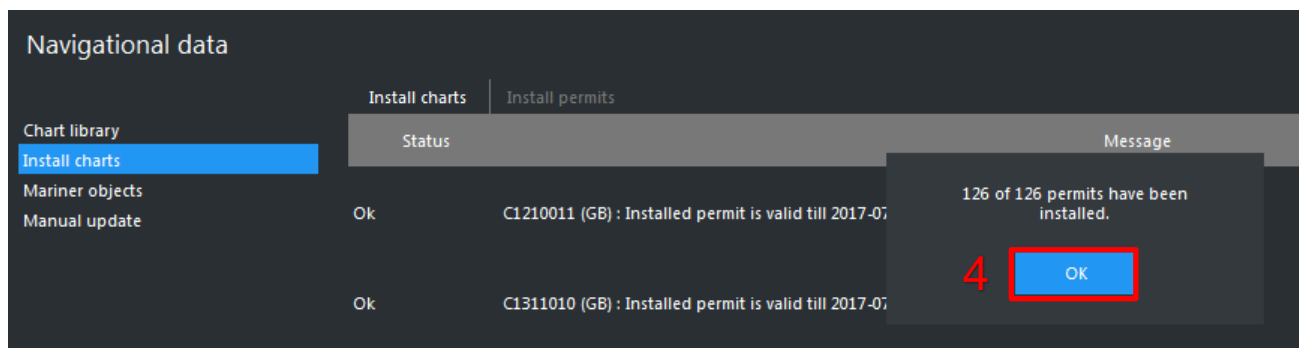
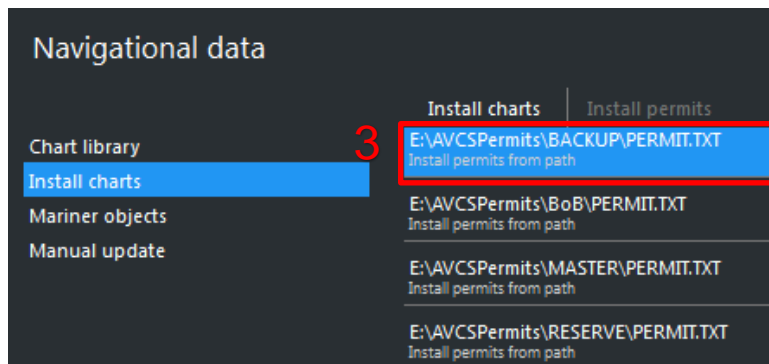
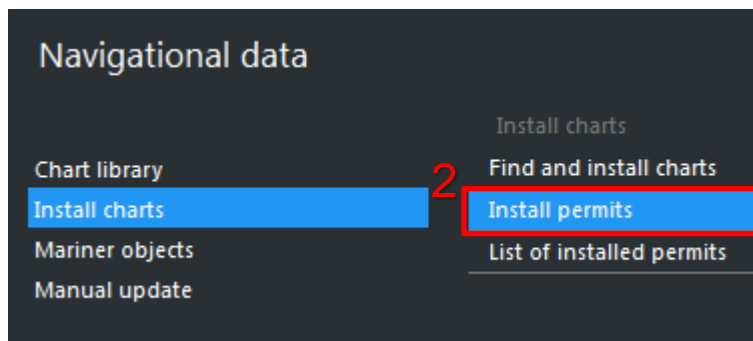


6 Installing ENC Permits

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

To install AVCS ENC Permits including AIO PERMIT:

1. Insert the CD/USB Stick Media containing PERMIT.TXT to the ECDIS then go to **Main Menu** then click **NAV DATA**.
2. Go to **Install charts** then click **Install permits**.
3. System will auto search the PERMIT.TXT from the removable media. Select the correct **PERMIT.TXT** file to install.
4. System will prompt you informing 'Total Number of Permit installed.' Click **OK**.
5. Once all permits are installed, user can check the ENC Permit status at **List of installed permits**.



7 Installing AVCS DVDs

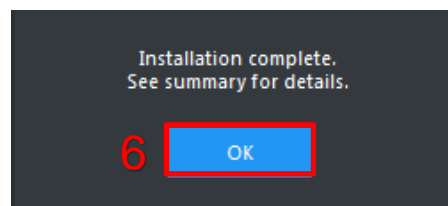
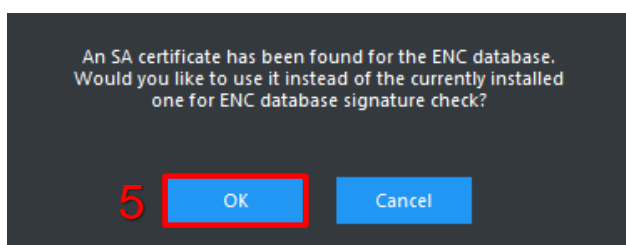
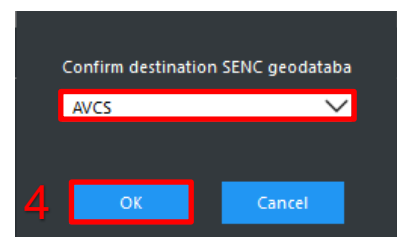
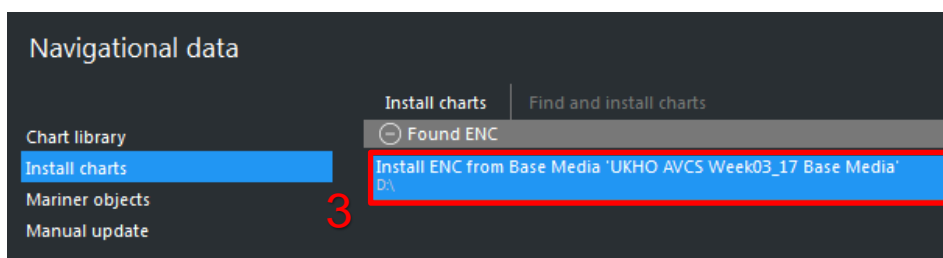
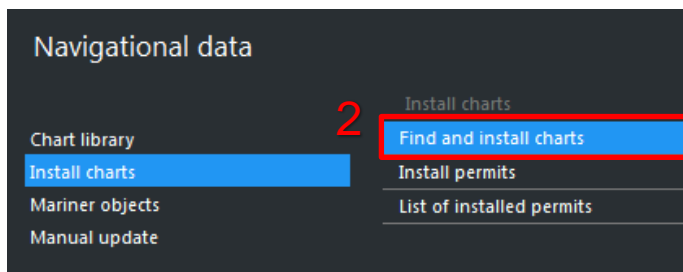
There are currently 2 AVCS DVD Media. AVCS DVD Media contain all the latest Base and Update data. It is likely that users will need to install both DVDs in order to load all licensed ENC's. Reference to the Schedule A can avoid the unnecessary loading of both DVDs and save the user time.

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. Insert the latest AVCS DVD Media then go to **Main Menu** then click **NAV DATA**. Ensure no other removable media such as USB Stick Media is inserted into ECDIS.
2. Go to **Install charts** then click **Find and install charts**.
3. System will auto search all the removable media. Select the **DVD media drive** to install licenced charts.
4. System will prompt 'Confirm destination SENC Geodataba.' Select **AVCS** then Click **OK**.
5. System will detect the SA certificate within the AVCS DVD. Click **OK** to start the chart installation.
6. Once the charts installation are completed, click **OK** to see installation summary status.



8 Installing AVCS Base CDs

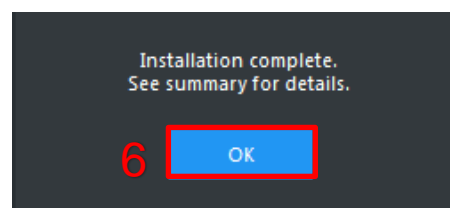
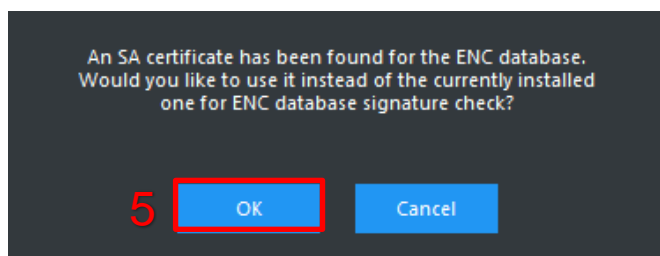
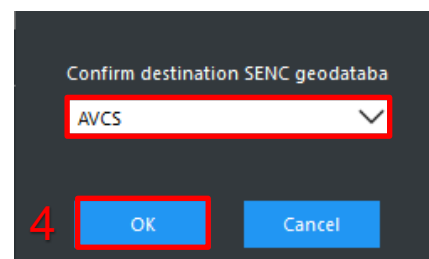
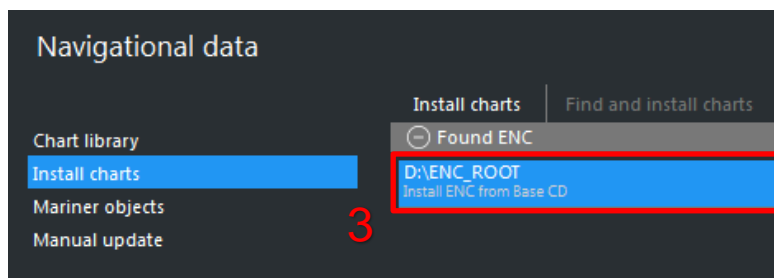
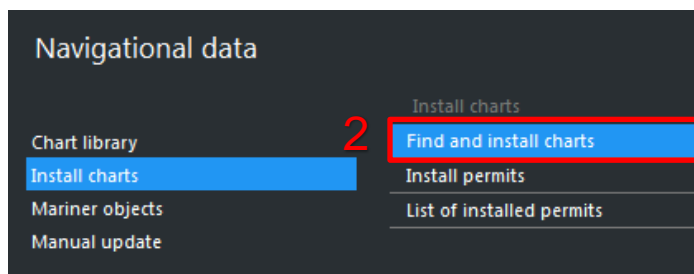
There are currently 9 AVCS Base CDs but this number will grow as more ENC's become available for distribution within AVCS. It is unlikely that users will need to install all of the CDs in order to load all licensed ENC's. Reference to the Schedule A can avoid the unnecessary loading of some CDs and save 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. Insert the latest AVCS Base CD Media then go to **Main Menu** then click **NAV DATA**. Ensure no other removable media such as USB Stick Media is inserted into ECDIS.
2. Go to **Install charts** then click **Find and install charts**.
3. System will auto search all the removable media. Select the **CD media drive** to install licenced charts.
4. System will prompt 'Confirm destination SENC Geodataba.' Select **AVCS** then Click **OK**.
5. System will detect the SA certificate within the AVCS CD. Click **OK** to start the chart installation.
6. Once the charts installation are completed, click **OK** to see installation summary status.



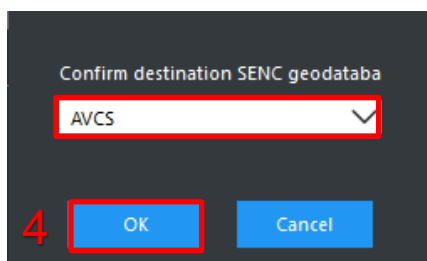
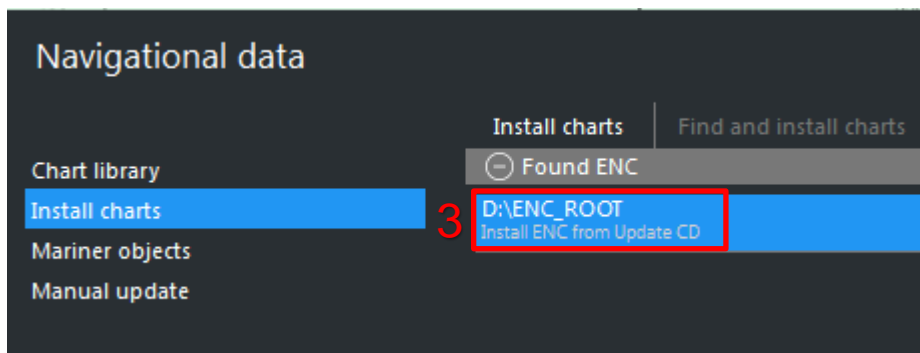
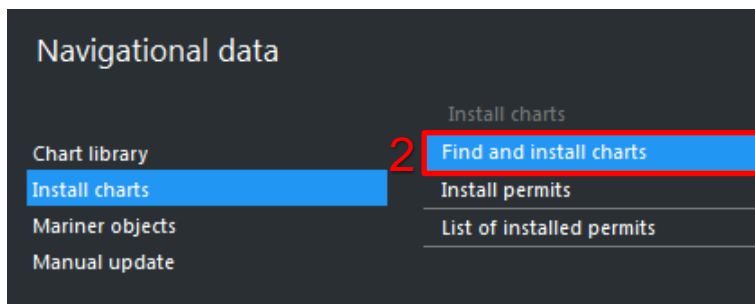
9 Installing AVCS Update CD

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. Insert the latest AVCS Update CD Media then go to **Main Menu** then **click NAV DATA**. Ensure no other removable media such as USB Stick Media is inserted into ECDIS.
2. Go to **Install charts** then click **Find and install charts**.
3. System will auto search all the removable media. Select the **CD media drive** to install licenced charts.
4. System will prompt 'Confirm destination SENC Geodataba.' Select **AVCS** then Click **OK**.
5. System will detect media as Update Media, Click **Continue** to skip the Base CDs installation.
6. System will detect the SA certificate within the AVCS CD. Click **OK** to start the chart installation.
7. Once the charts installation are completed, click **OK** to see installation summary status.



This 'Update Media' is not compatible with the actual installed 'Base Media'.
Please install the following 'Base Media' first and then continue with the 'Update Media'.

AVCS - CD 05 of 09

AVCS - CD 08 of 09

AVCS - CD 09 of 09

Cancel

Continue

5

An SA certificate has been found for the ENC database.
Would you like to use it instead of the currently installed
one for ENC database signature check?

6

OK

Cancel

Installation complete.
See summary for details.

7

OK

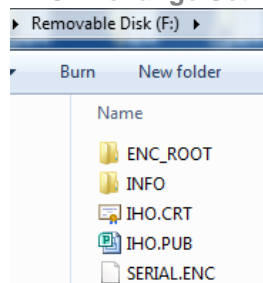
10 Installing Exchange Set Using USB Media

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.

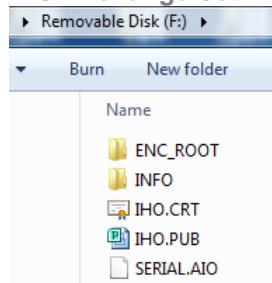
To create AVCS/AIO Exchange Set into Virus Free USB Media:

1. Save **ENC_ROOT**, **INFO** and **SERIAL.ENC** or **SERIAL.AIO** into root directory of an empty USB Stick Media.
2. Optional - Copy **IHO.CRT** and **IHO.PUB** from AVCS DVD/CD Media.
3. Carry out Virus Scan on USB Stick Media after copying the Exchange Set.

ENC Exchange Set

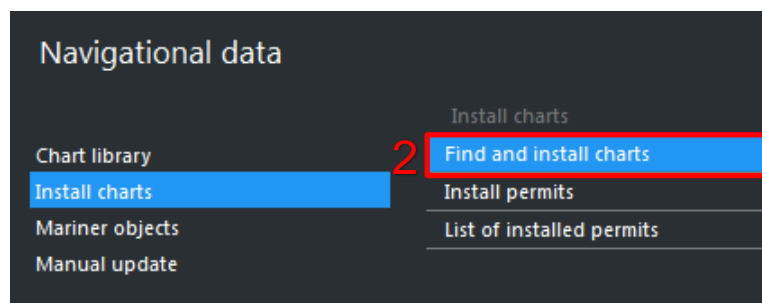


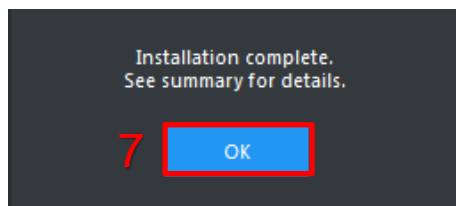
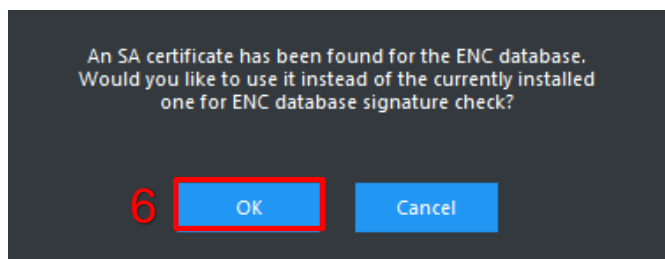
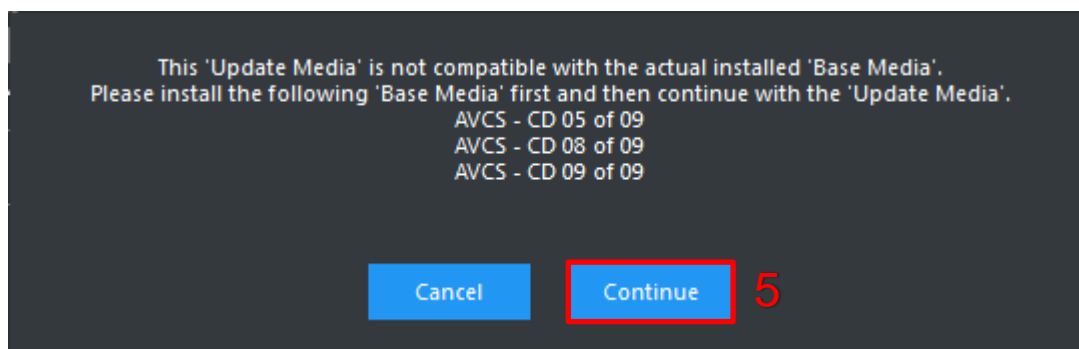
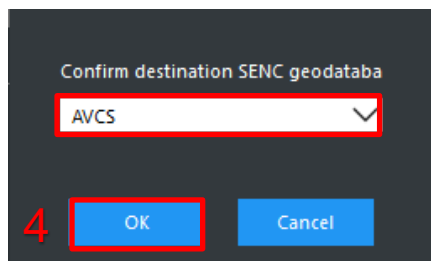
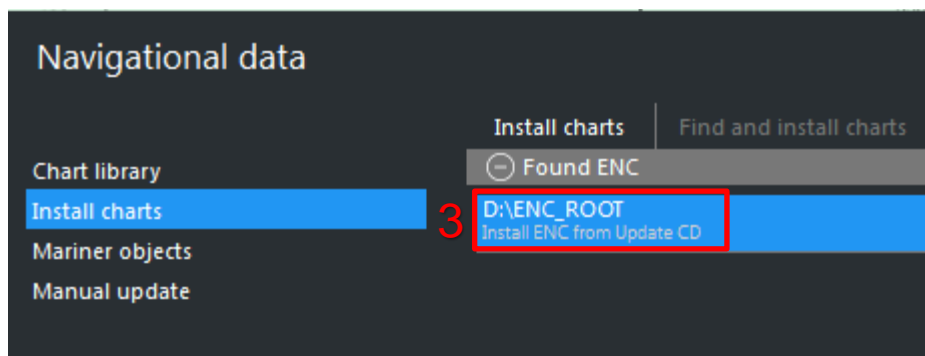
AIO Exchange Set



To install AVCS/AIO Exchange Set using USB Stick Media:

1. Insert the latest AVCS/AIO exchange set using USB Stick Media then go to **Main Menu** then click **NAV DATA**. Ensure no other removable media such as AVCS DVD/CD Media is inserted into ECDIS.
2. Go to **Install charts** then click **Find and install charts**.
3. System will auto search all the removable media. Select the **USB media drive** to install licenced charts.
4. System will prompt 'Confirm destination SENC Geodataba.' Select **AVCS** then Click **OK**.
5. If system detect media as Update Media, Click **Continue** to skip the Base CDs installation.
6. If system detect the SA certificate within the Exchange Set Media. Click **OK** to start the chart installation.
7. Once the charts installation are completed, click **OK** to see installation summary status.

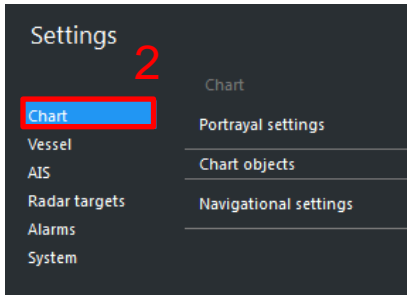




11 View an ENC

To setup Chart Display:

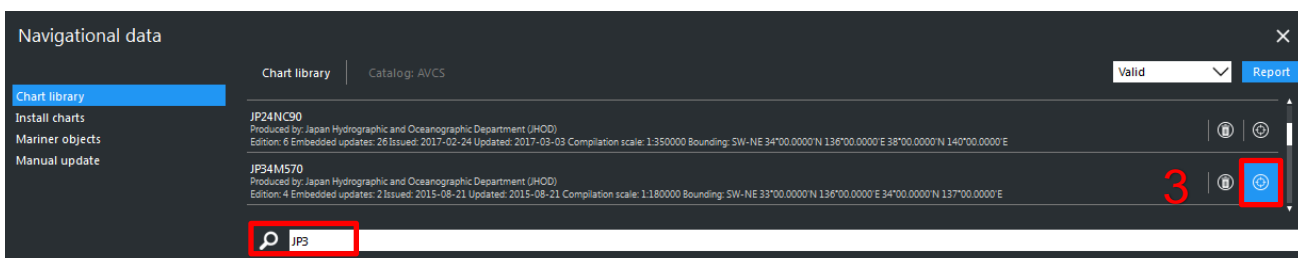
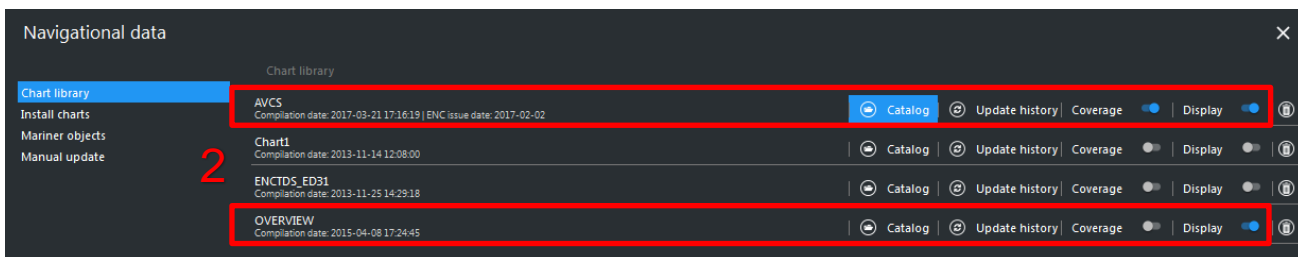
1. Go to **Main Menu** then click **SETTINGS**.
2. Go to **Chart** and configure **Portrayal settings**, **Chart objects** and **Navigational settings**.



To view ENC data:

1. Go to **Main Menu** then click **NAV DATA**.
2. Go to **Chart library** then click Chart Database's **Coverage** to view the licenced ENCs coverage area and **Display** to view ENC on geographical display follow by **Catalog** to view installed licenced ENCs. (For example: AVCS)
3. **Search Cell Name(s)** and click on the **Position** Icon to view ENC.

Note: To view the world vector shoreline, user need to click **OVERVIEW** database's **Display**.

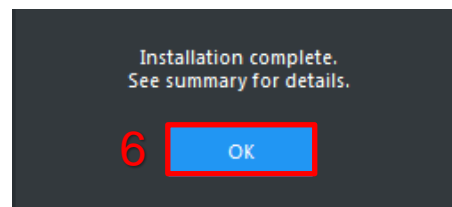
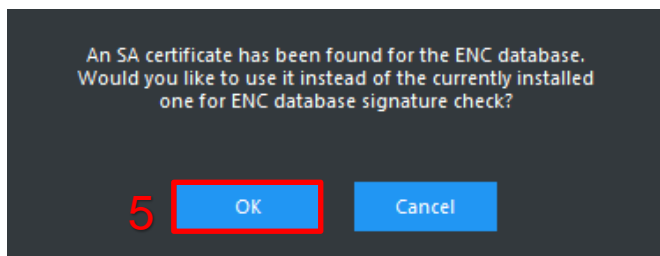
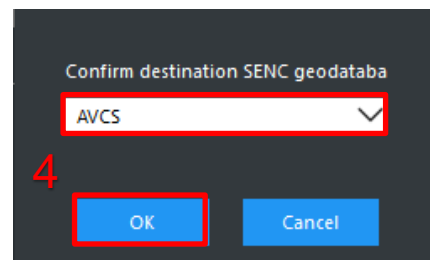
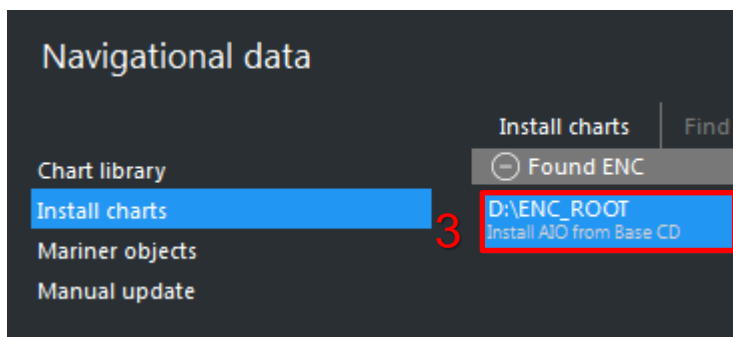
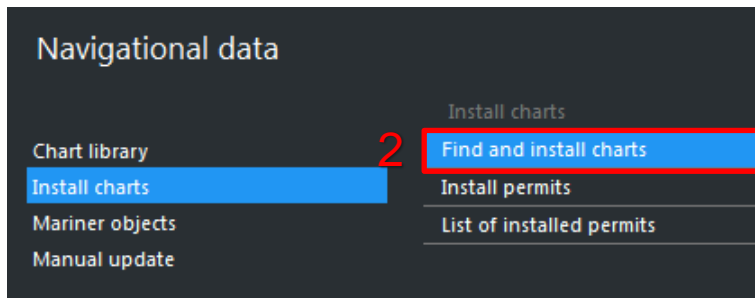


12 Installing AIO CD

Note: Ensure the latest AVCS Permit including AIO has been installed before attempting to install any data

To install AIO CD:

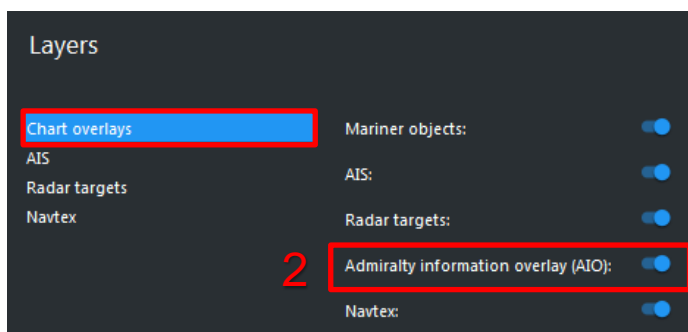
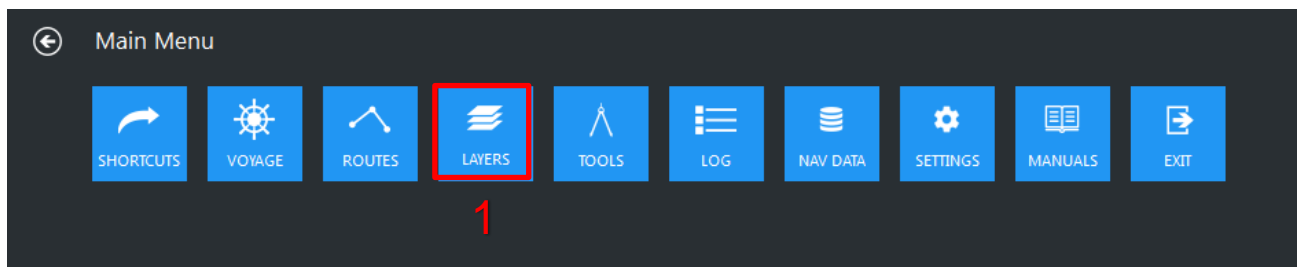
1. Insert the latest AIO CD Media then go to **Main Menu** then click **NAV DATA**. Ensure no other removable media such as USB Stick Media is inserted into ECDIS.
2. Go to **Install charts** then click **Find and install charts**.
3. System will auto search all the removable media. Select the **CD media drive** to install licenced charts.
4. System will prompt 'Confirm destination SENC Geodataba.' Select **AVCS** then Click **OK**.
5. System will detect the SA certificate within the AIO CD. Click **OK** to start the chart installation.
6. Once the charts installation are completed, click **OK** to see installation summary status.



13 Using the AIO

To enable AIO data:

1. Go to **Main Menu** then click **LAYERS**.
2. Go to **Chart overlays** then enable **Admiralty Information overlay (AIO)**.



To view AIO data:

1. On the ECDIS Main Display, Right click on the displayed AIO polygon box and Object Information window will appear.
2. At Object information window, go to **Admiralty information overlay** and click on the **Temporary/Preliminary Notice** to view the information.
3. View AIO information such as **ENC Affected**, **Supporting Textual information** and **attached Text or Picture File Reference**.
4. At Textual description or Pictorial representation, click on the file to view the information in details. Click on Full Image for Pictorial file.

The screenshot displays the ECDIS interface with a map of the Johor (Malaysia) area. A red box labeled '1' highlights a specific object on the map. Below the map, the 'Object information' window is open, showing the 'Admiralty information overlay' tab. A red box labeled '2' highlights the 'Temporary Notice' and 'Preliminary Notice' sections. Below this, another 'Object information' window is shown, with a red box labeled '3' highlighting the 'Pictorial representation' field, which contains the file 'GB1B5F07.TIF'. A third window is shown at the bottom, with a red box labeled '4' highlighting the 'Full image' button and the 'GB1B5F07.TIF' file name.

Object information

Inspector: 01°25.9037' N 104°27.6079' E

Coverage
Category of coverage: coverage available | Source date: 20161115 | Source indication: MS/MS graph SC202E8

Admiralty information overlay

Temporary Notice
Information: Wreck, Buoy | Object name: 1610(T)/17 | Source indication: GB/GB graph, Marine Department Malaysia Notice 17(T)/17 and Maritime and Port Authority of Singapore | Textual description: GB171610.TXT | ENC affected: MS3K2E8, MS4N52E8

Preliminary Notice
Object name: 10097(EP)/15 | Pictorial representation: GB08AA4C.TIF | Source indication: 2403 | ENC affected: MS3K2E8, ...

Object information

Inspector: Preliminary Notice 01°25.1527' N 104°24.6064' E

Information	GB chart 3831 shows 20m contour in a different position to ENC MS4N52E8. The source of the contour on the GB chart is MY Notice 3/55/11
Object name	12550(EP)/13
Pictorial representation	GB1B5F07.TIF
Source indication	3831

Object information

Close GB1B5F07.TIF from Preliminary Notice

Full image

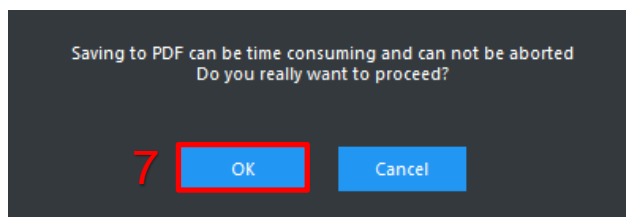
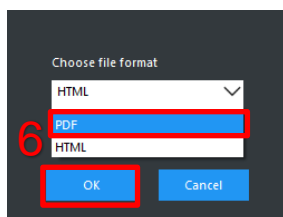
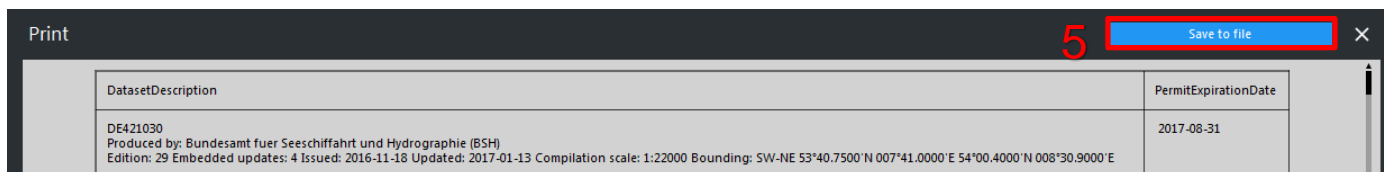
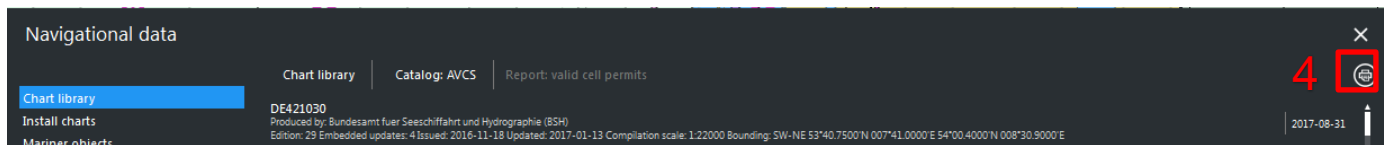
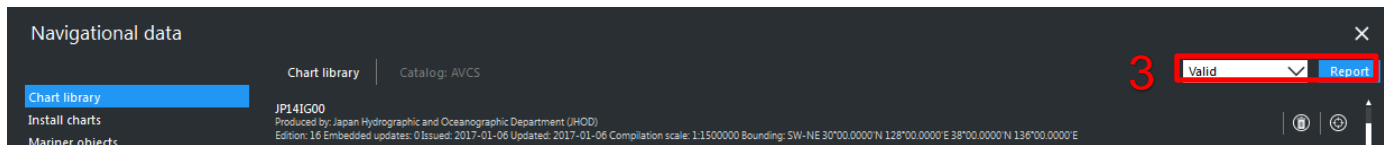
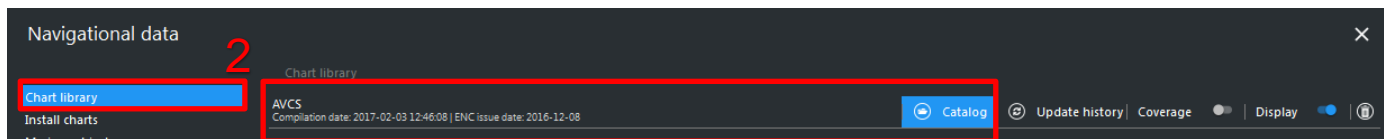
GB1B5F07.TIF

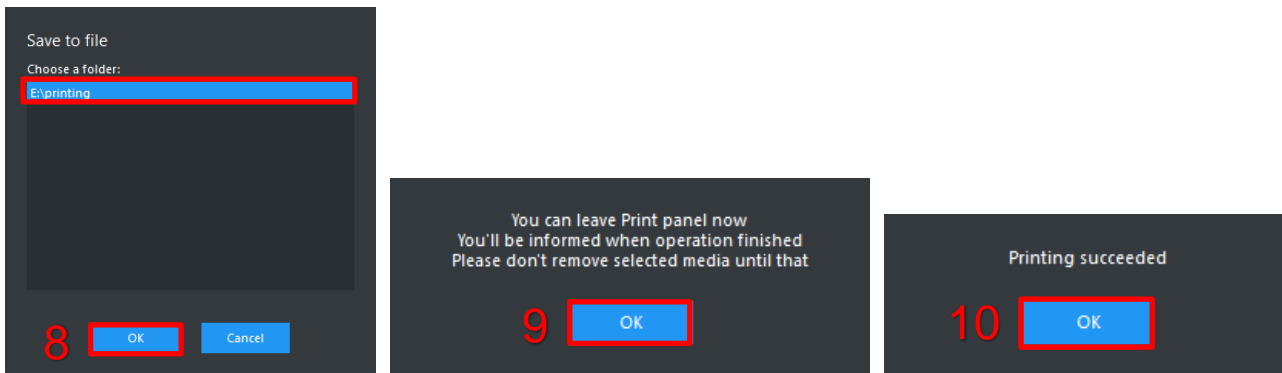
14 Systems Checks

The user has the option to review the status of all installed ENC's from within the Chart Library as follows:

To generate the ENC Update Status report:

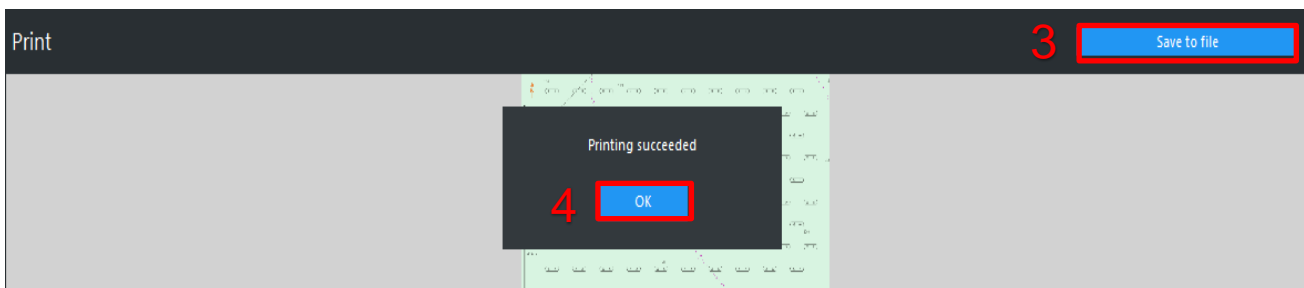
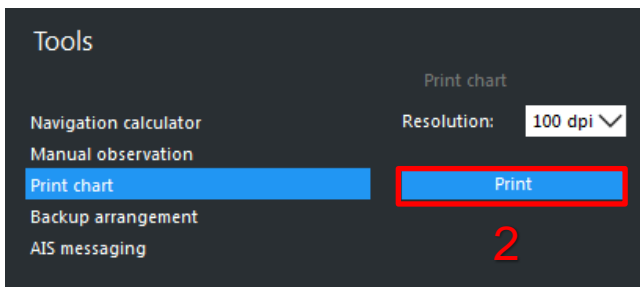
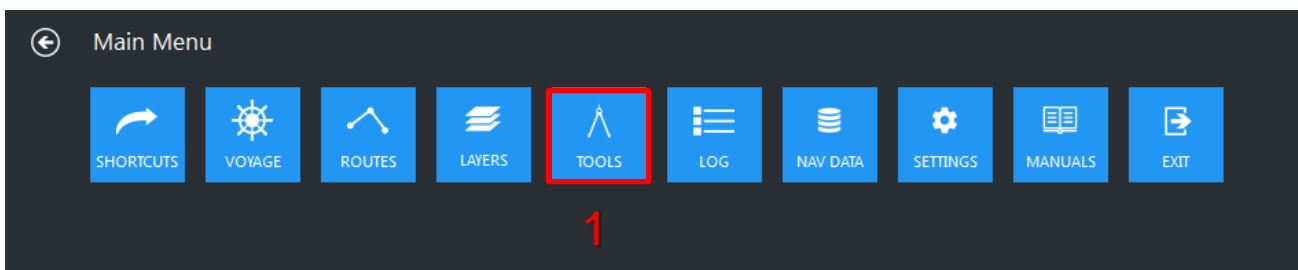
1. Go to **Main Menu** then click **NAV DATA**.
2. Go to **Chart library** then click on Chart Database's **Catalog** (For example: AVCS).
3. Select **Valid** option and click on **Report** to view installed charts status.
4. Click on the **Printer** icon to view the report.
5. Insert virus free empty USB Stick Media and click **Save to file**.
6. Select **PDF** file format then **OK** to continue.
7. System will prompt it takes time to generate PDF report. Click **OK** to continue.
8. Click **OK** to save the PDF file into default printing folder.
9. Click **OK** to leave Print Panel.
10. System will display Printing succeeded once PDF report is saved into USB Stick. Click **OK** to end.





To capture the ECDIS Main Display:

1. Insert virus free empty USB Stick Media then go to **Main Menu** then click **Tools**.
2. Go to **Print chart** then select the **Resolution (*dpi)** and click **Print**.
3. Check the Preview image and click **Save to file** to export the screenshot into USB Stick.
4. System will prompt Printing succeeded once the file is transfer into USB Stick. Click **OK** to end.



15 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 ENC's, 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    