

FURUNO

NavNet 3D Chart & Data Installation Guide v1.0

MFD8/12/BB



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1. Data Catalog

Chart Data (Charts, Satellite Photos and 3D) needs to be installed on the NavNet 3D MFD's internal memory before it can be used by the Plotter. This chart installation is done from the Data Catalog menu page (as seen in *Figure 1.1*). To display the Data Catalog, press the [MENU] key. Turn the RotoKey to display the "Chart" page. Push the RotoKey and turn the RotoKey clockwise to select the "Data Catalog" tab. Menus and tabs may also be selected using the cursor pad or a conventional mouse (if one is installed via the NavNet 3D USB connection).

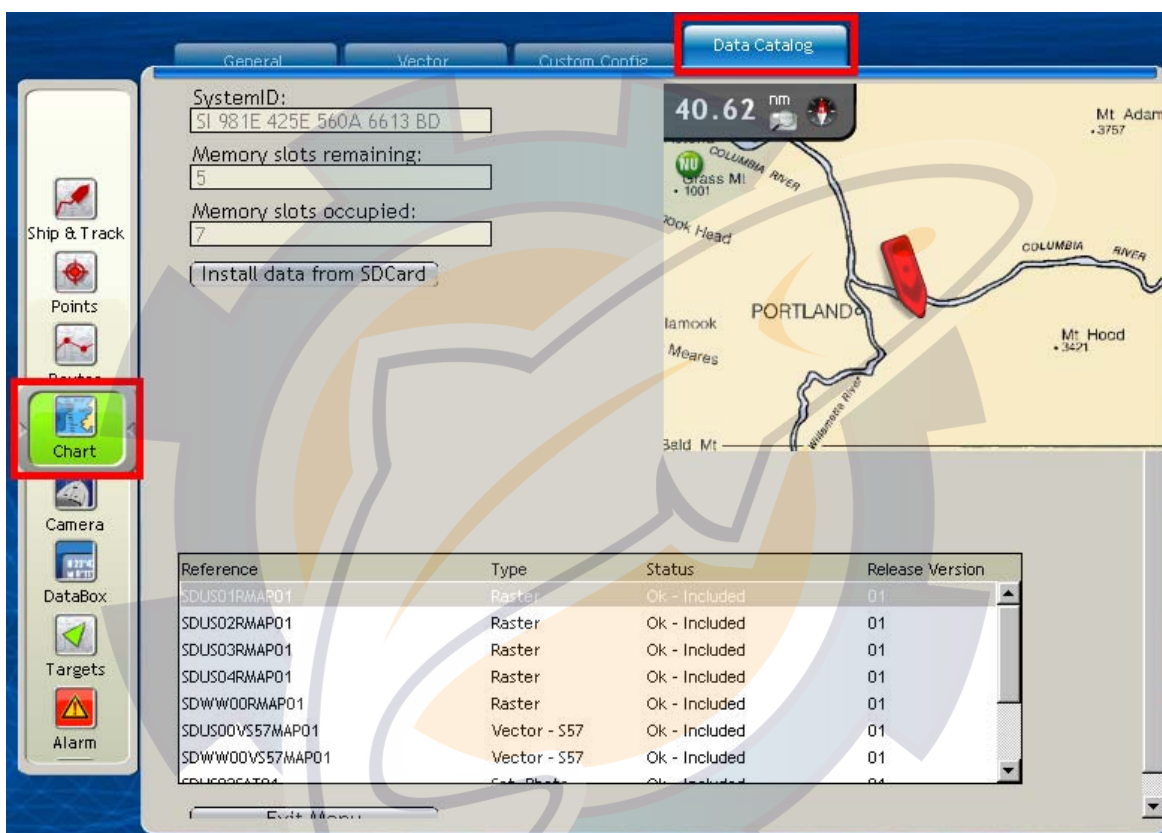


Figure 1.1

1.1. SystemID

The SystemID is a unique 20 digit number that identifies a NavNet 3D system. The SystemID is required to purchase charts and must be provided when charts are ordered.

1.2. Memory Blocks

The MFD's internal memory is divided into "Memory Blocks," also referred to as "Memory Slots" in the system software. A memory block may contain a minimum of (1) area of data (Raster, Vector, Satellite Photo or 3D). NavNet 3D comes preloaded with chart data for the U.S. and has 4 memory blocks available to install additional data. NavNet 3D will show how many memory blocks are occupied and how many are remaining.

Note that if no memory blocks are available (Memory Slot remaining = 0), additional data may not be loaded until free space is created by deleting select data from the MFD. Please refer to section 5.2 for more information on how to free memory blocks.

1.3. Data List

The Data List shows all the Data Installed on the MFD's internal memory and gives basic information for each item installed. You can select data by using the RotoKey or clicking on it with the cursor pad or a mouse (if installed). When Data is selected, the Preview screen automatically centers on it, giving basic information about the location of the Data. If you push on the RotoKey while the Data is selected (or right click on it) a menu will appear (Delete, Insert Unlock Code, Repair, etc.)

1.3.1. Reference

"Reference" is the name of the Data File

"Type" describes the type of data:

- Raster: Raster Charts
- Vector-S57: S57 Vector Charts
- Vector: Mapmedia Vector Charts
- Sat. Photo: Satellite Photo
- 3D: 3D (bathymetric/topographic) Information

1.3.2. Status

The following Status may appear:

- "OK – Included": For the Free Data
- "OK – Unlocked": For purchased data that was successfully unlocked (a correct Unlock Code was entered)
- "OK – Locked": The data was correctly copied onto the MFD, but no Unlock Code was entered. In this state, the Chart cannot be displayed until a valid Unlock Code is entered (select the Area and Push the RotoKey or Right Click on it to enter the Unlock Code; See section 4.3)
- "Corrupted": The Data cannot be read by the system. Select the Area and Push the RotoKey or Right Click on it to try to Repair It. If the area cannot be repaired, you will have to delete it from the Chart Catalog and re-install.

1.3.3. Release Version

All Data contains a release version. When a customer purchases charts, he purchases an area with the current release version. The Unlock Code provided at this time will only work for this specific edition number (or earlier edition numbers). ROW (Rest of the World) charts will be updated approximately once per year and the edition number will be incremented.

2. MM3D Chart Data Available on the Internet

2.1. Download Charts from the Internet

Free charts and Satellite Photos for the USA can be downloaded from the Furuno USA website at <http://tinyurl.com/3uyogg>. Navigate to this website manually by going to <http://www.furunousa.com/furuno> and selecting "Products > NavNet 3D > MapMedia Charts & Satellite Photos for NavNet 3D". Once here, select the area(s) and style chart(s) required. A list of the U.S. Raster Charts is shown in *Figure 2.1*:

If using an FTP Client, all Satellite Photos and charts can be downloaded from the Furuno USA FTP Server at <ftp://charts.furunousa.com>.

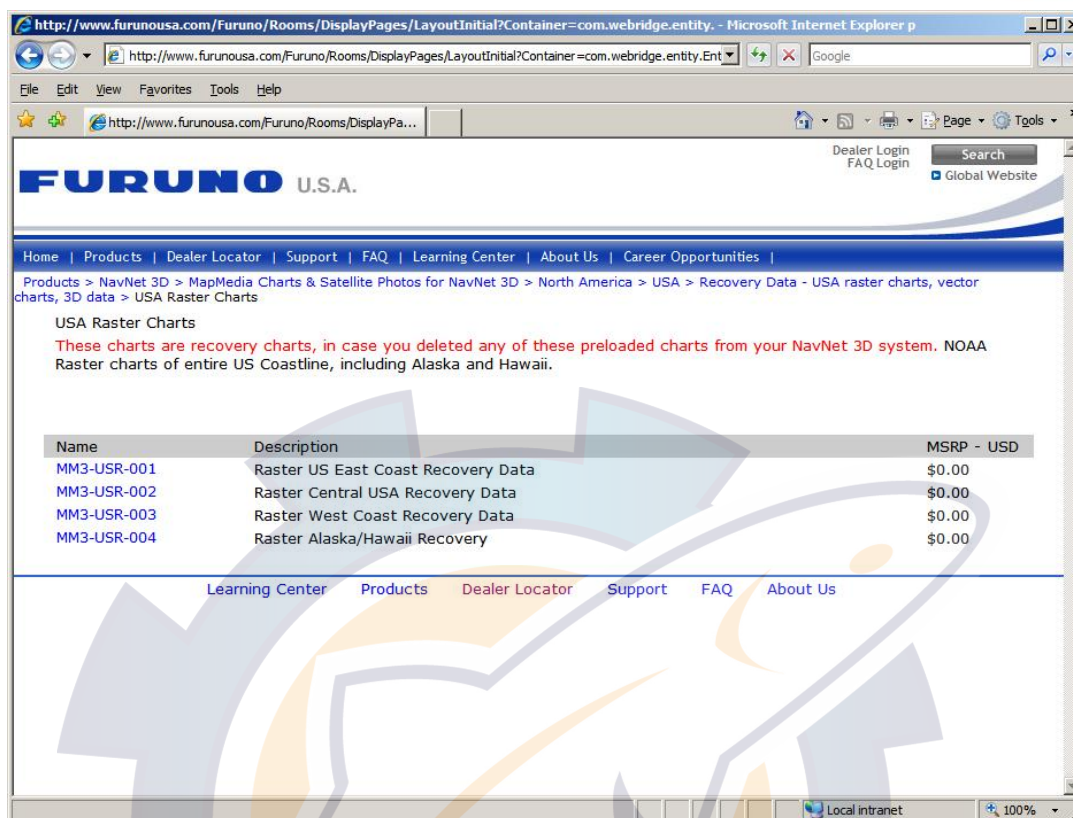


Figure 2.1

Once you have located the specific chart you are looking for, click on the Chart Part Number (MM3-XXX-XXX). A link to download the chart is located in the lower right corner of the screen. Right click on the link and "Save Target As..." as shown in Figure 2.2:

MM3-USR-001

Overview
Manuals/Documents

This is the raster chart for the East Coast of the US. Please refer to area SDUS01RMAP01 on the photo to the left for the coverage boundaries.

We recommend that you request this data on an SD card from your local Authorized Furuno Dealer. A fee may apply for the dealer to provide you with the data on an SD card.

Optionally, you can download the file and upload to your NavNet 3D system. **Note that the file size is approximately 2 GB, so it may take several hours to download, depending on available bandwidth.** When you click on the Manuals/Documents Tab photo, click on the link

Caution: This is RECOVERY data. If you have accidentally deleted this data, you must re-download it. DO NOT delete this data if you have it on your NavNet 3D system. When you delete it, you lose it.

>> Download SDUS01RMAP01 (2 GB)

MSRP - USD

Figure 2.2

2.2. Unzip the Downloaded File

When the file download is complete, unzip and save the file in a folder designated by you.

2.3. Transfer Data to the SD-Card

2.3.1. Copy the Chart Data

Only one set of data, either high resolution Satellite Photo(s) or Chart Pack(s) can be copied to the Windows clipboard at a time.

Copy High Resolution Satellite Photo

To copy high resolution Satellite Photo(s), right click on the “.dba” file you unzipped and choose “Copy”. (See *Figure 2.3*)

Warning: Do NOT rename the file or change its extension.

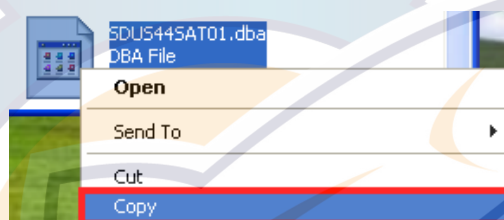


Figure 2.3

Copy Chart Pack(s)

To copy Chart Packs, select all of the files in the folder you unzipped (CTRL-A or “Edit” > “Select All”), then copy the files (CTRL-C or “Edit” > “Copy”). (See *Figure 2.4*)

Warning: Do NOT rename the file or change its extension.

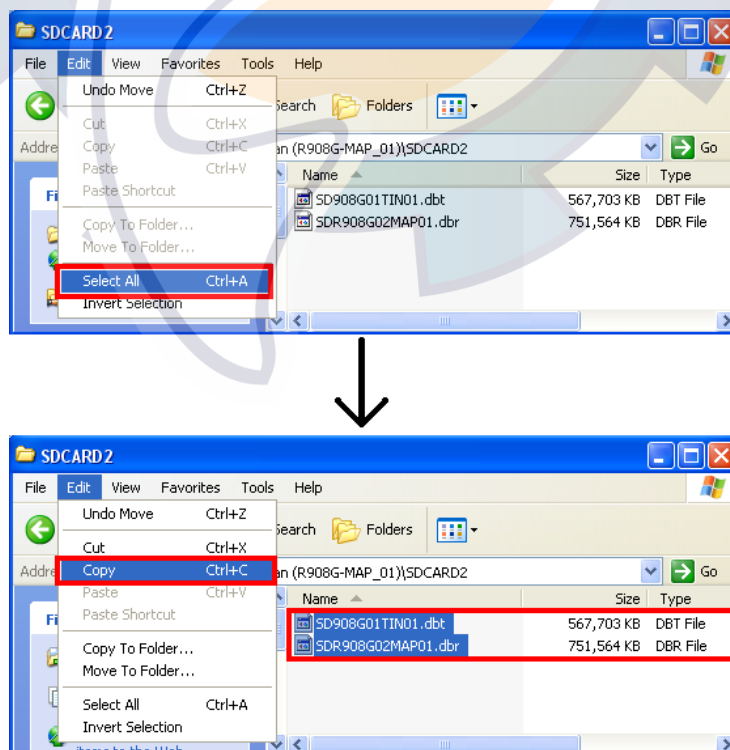


Figure 2.4

Note: If the folder contains only one file, right click on the file and select “Copy” from the menu (See Figure 2.5)

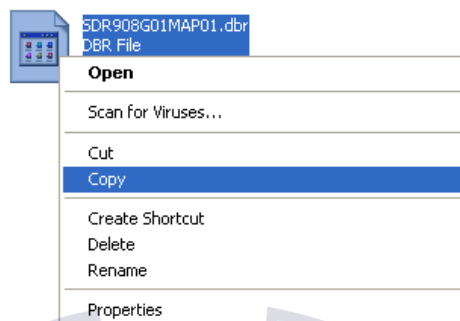


Figure 2.5

2.3.2. Paste the Chart Data

Note: Please refer to the Appendix at the end of this document (Section 6.) to learn how to properly format the SD-Card prior to pasting the chart data.

Insert a 2GB SD-card into the SD-Card reader of the computer. If the SD-Card folder doesn't automatically open, follow the instructions below:

- Click Start and select “My Computer”.
- Double-click on the Removable Disk. The name of your external drive may vary (see Figure 2.6).

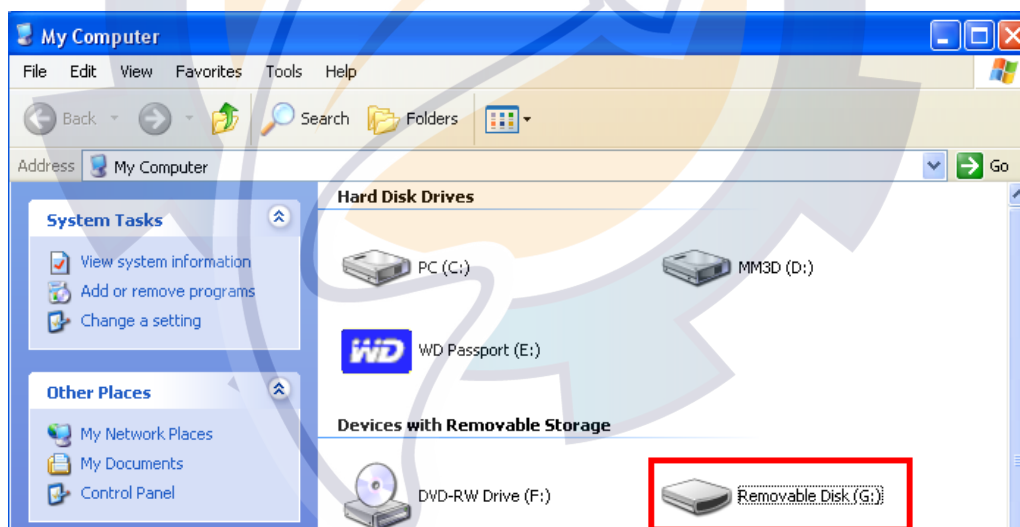


Figure 2.6

Paste the file(s) at the root directory of the SD-Card (CTRL-V or “Edit” > “Paste”). (See figure 2.7).

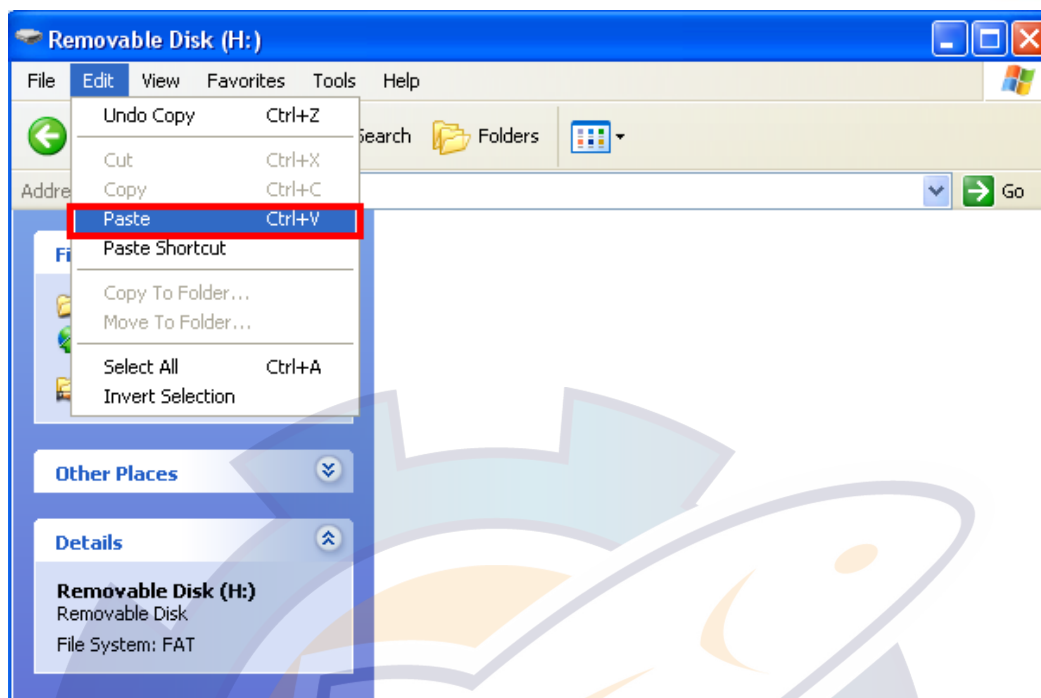


Figure 2.7

When the transfer is completed, remove the SD-Card.

Note: To safely remove the SD-Card, return to the My Computer window, right-click on the SD-Card, then click Eject.

3. MM3D USB Hard-Drive Introduction

The MM3D external USB hard-drive contains chart data that can be used with NavNet 3D. The chart data can be copied onto SD-Cards (2GB SanDisk SD-Cards recommended) then installed onto the NavNet 3D MFD(s) using the integrated SD-Card reader of the display (MFD8/12) or keyboard (for the MFDBB).

Furuno USA strongly recommends the use of the external USB hard-drive as the best method for loading chart data onto SD-Card(s).

All the Data contained in the "USA" folder (under "North_America") can be installed onto any NavNet 3D display (free data). The Data contained in the other folders can be copied and distributed but will require an Unlock Code when installed onto any NavNet 3D MFD.

Warning: Do NOT rename or change the extension of any files contained on the external USB hard-drive.

The instructions below explain how to transfer the Data from the external USB hard-drive to the SD-Card(s). Please note that you can also transfer the entire contents of the external USB hard-drive to a computer that will become the "chart server" (this will improve the transfer speed to the SD-Card)

Note: PC Required. The external USB hard-drive cannot be connected directly to NavNet 3D: SD-Cards are required to transfer the data.

3.1. Connecting the Hard-Drive

Insert the USB cable of the external USB hard-drive directly into an available USB port on your PC. The USB connection will be used to transfer data and power to the external USB hard-drive (no extra power supply is required).

Note: In the lower right-hand corner of your screen, you may see a message indicating that a new device has been detected. It may take about 10 seconds until you see "Device is ready for use."

If the external drive folder doesn't automatically open, follow the instructions below:

- Click Start and select "My Computer".
- Double-click your external hard-drive icon. The name of your external drive may vary. For example: MM3D (D:) (see *Figure 3.1*):

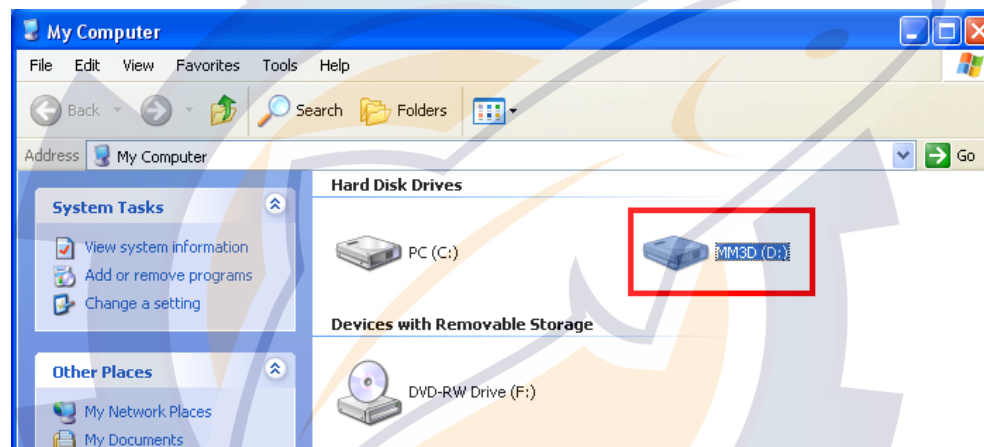


Figure 3.1

3.2. Hard-Drive File Structures

The hard-drive contains multiple folders and subfolders. The first level allows you to choose your Continent (see *Figure 3.2*)

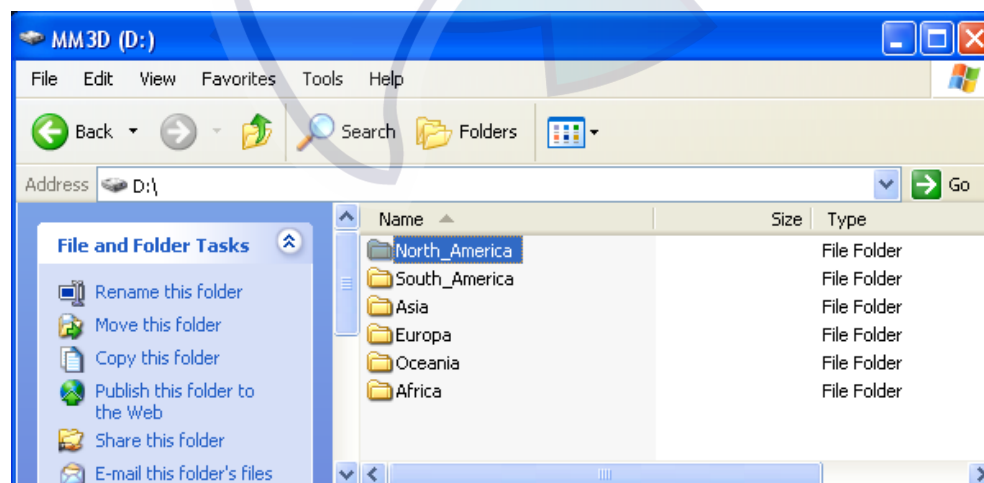


Figure 3.2

The second level lists the Chart Packs available for the selected Continent (see *Figure 3.3*):

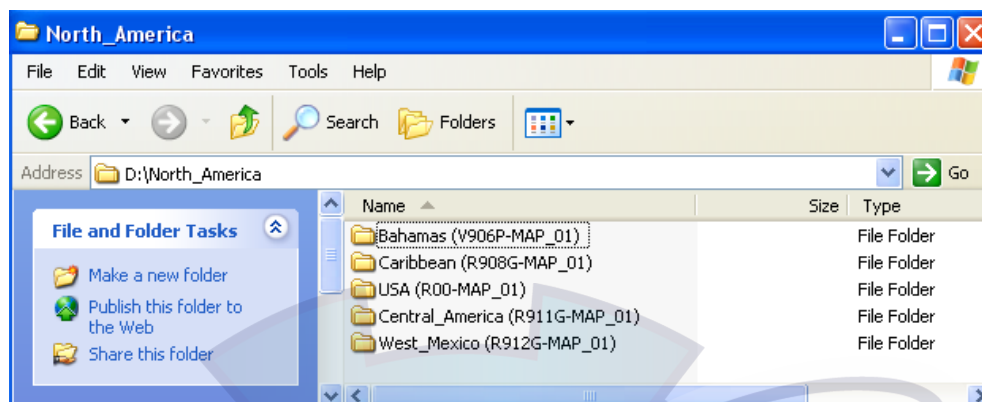


Figure 3.3

A Chart Pack consists of multiple data: Nautical Charts, Satellite Photos and 3D Data. In some cases, multiple SD-cards will be required for one Chart Pack. In this example (Chart Pack for the Caribbean), you will need (3) SD-Cards (see *Figure 3.4*).

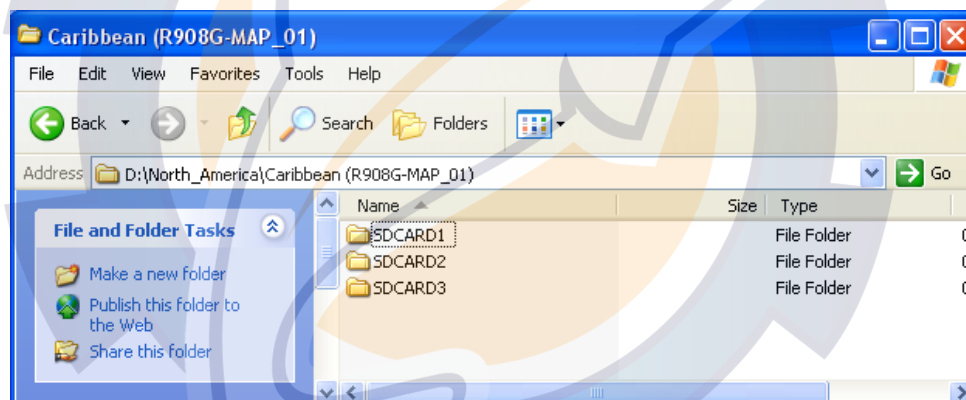


Figure 3.4

Some Chart Packs have additional high resolution Satellite photos (ex: Bahamas, France, USA...). These Chart Packs have a "Sat_Photo_HR" folder (see *Figure 3.5*)

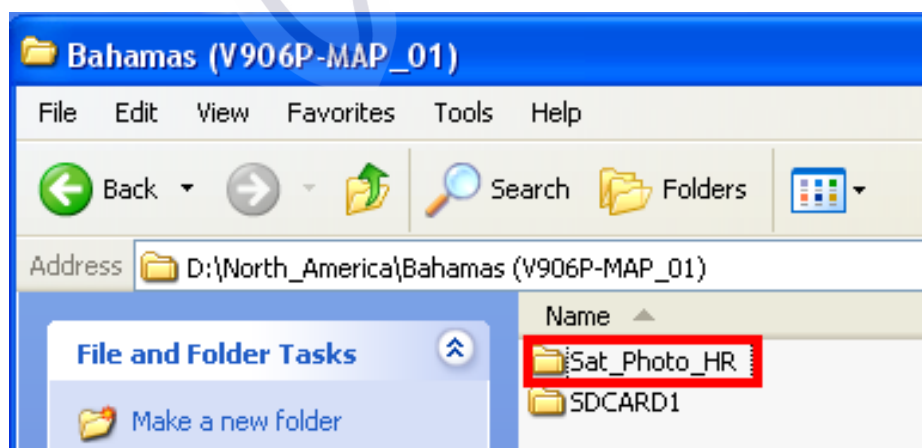


Figure 3.5

Due to very high resolution and full coastline coverage, the Satellite Photos are divided into smaller sub-areas. A document describing the Satellite Photo boundaries is included inside each "Sat_Photo_HR". This will allow you to pick only the areas you are interested in.

3.3. Transfer Data to the SD-Card

Note: Please refer to the Appendix at the end of this document (Section 6.) to learn how to properly format the SD-Card prior to pasting the chart data.

Open the first folder "SDCARD1". Select all the files inside the folder (CTRL-A or "Edit" > "Select All"). Copy all of the files (CTRL-C or "Edit" > "Copy"). (See Figure 3.6)

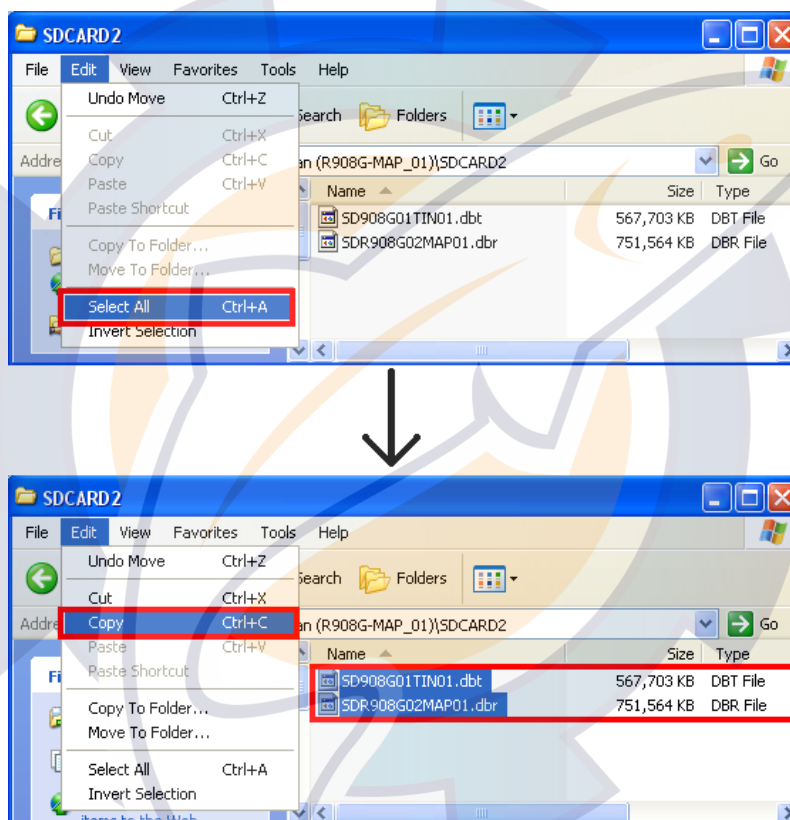


Figure 3.6

Note: If the folder contains only one file, right click on it and select "Copy" from the menu (See Figure 3.7)

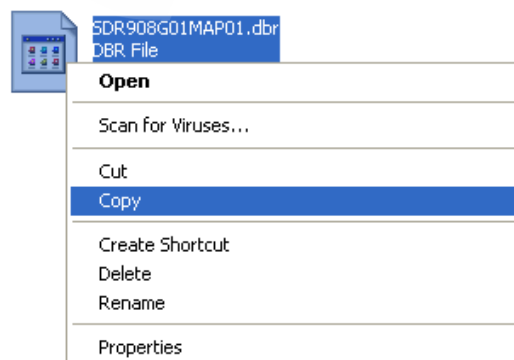


Figure 3.7

Insert an SD-card into the SD-Card reader of the computer. If the SD-Card folder doesn't automatically open, follow the instructions below:

- Click Start and select "My Computer".
- Double-click on the Removable Disk. The name of your external drive may vary. (See *Figure 3.8*)

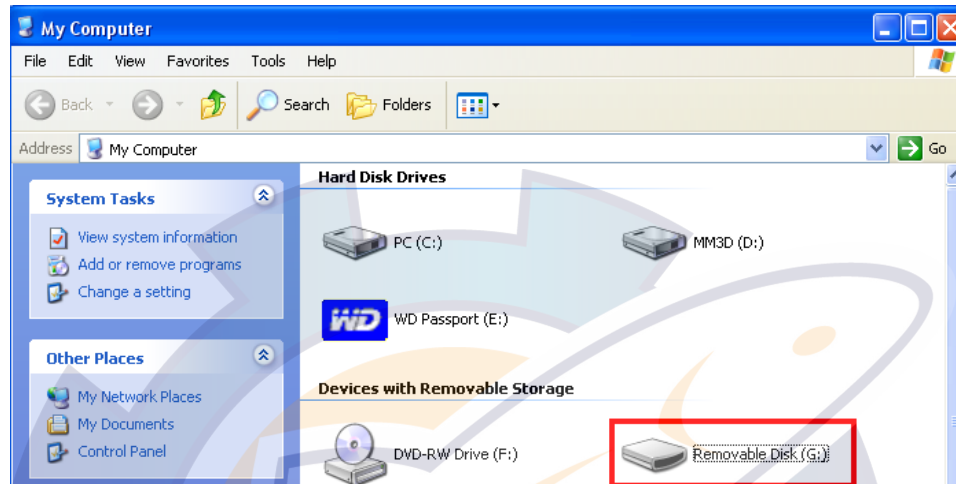


Figure 3.8

Paste the file(s) at the root of the SD-Card folder (CTRL-V or "Edit" > "Paste"). (See *Figure 3.9*)

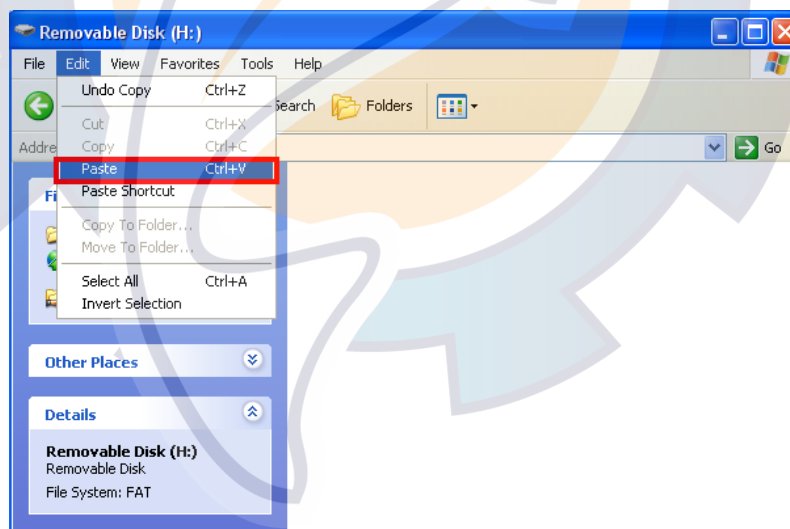


Figure 3.9

When the transfer is completed, remove the SD-Card and repeat this process to copy the contents of the other folders (SDCARD2, SDCARD3...) onto other SD-Cards if needed.

Note: To safely remove the external USB hard-drive or the SD-Card, return to the My Computer window, right-click on the SD-Card or external USB hard-drive, then click Eject.

4. How to Install New Data onto the MFD

4.1. Introduction

When you purchase a Chart Pack, the data (charts, 3D, Sat. Photo) may be split into multiple files that must be loaded onto multiple SD-Cards. Satellite Photos for the U.S. are divided into specific areas, with each area fitting on one SD-Card. When a Chart Pack is purchased, an Unlock Code will need to be entered after the chart is copied onto the Internal Memory of the MFD.

Note: Make sure at least one Memory Block is available before installing new data.

4.2. Transfer Data to the NavNet 3D MFD

Chart Data (Charts, Satellite Photos and 3D) needs to be installed on the NavNet 3D MFD's internal memory before it can be used by the Plotter. This process will need to be repeated on every MFD in the network.

Insert the SD-Card into the upper slot of the MFD on which data is to be loaded. Make sure that no other SD-Cards are inserted into any other MFD that is in the same network. Press the [MENU] key, select the "Chart" page and select "Data Catalog". Press the "Install Data from SD Card" button (as seen in *Figure 4.1*).

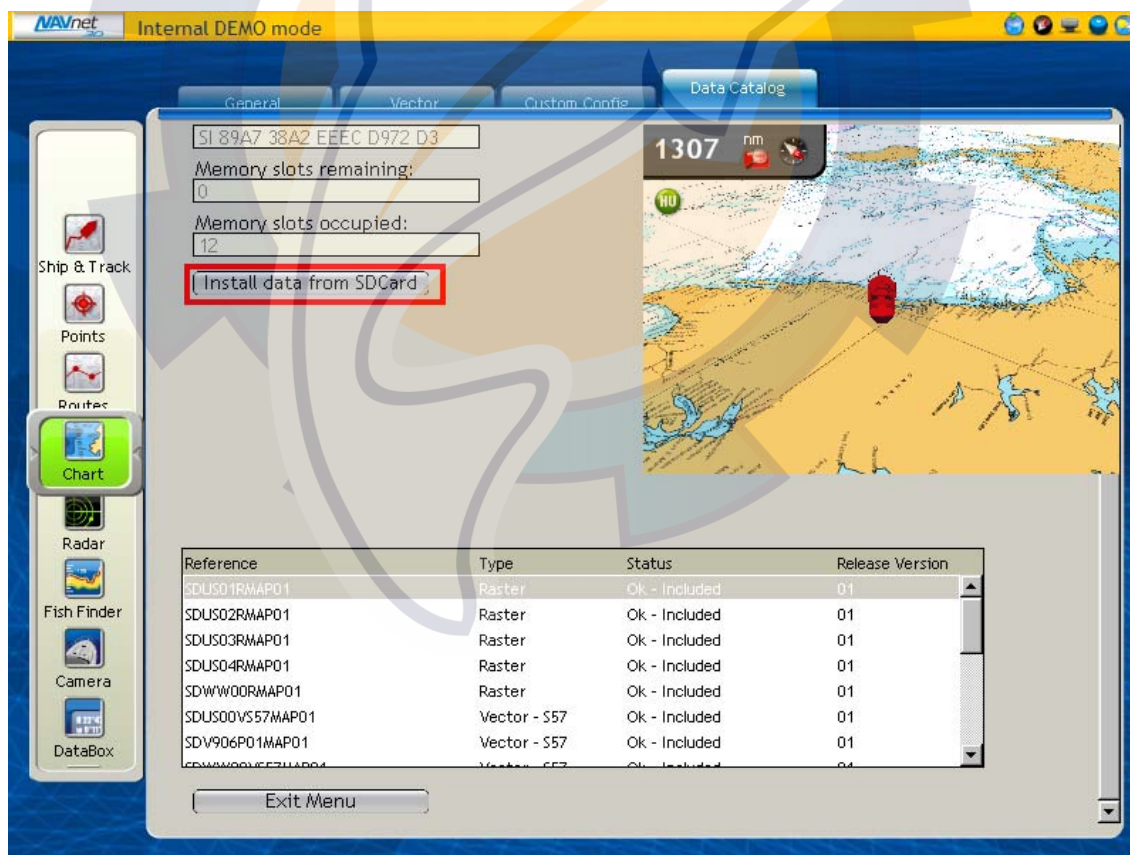


Figure 4.1

Select "Yes" when the following prompt appears (as seen in *Figure 4.2*):

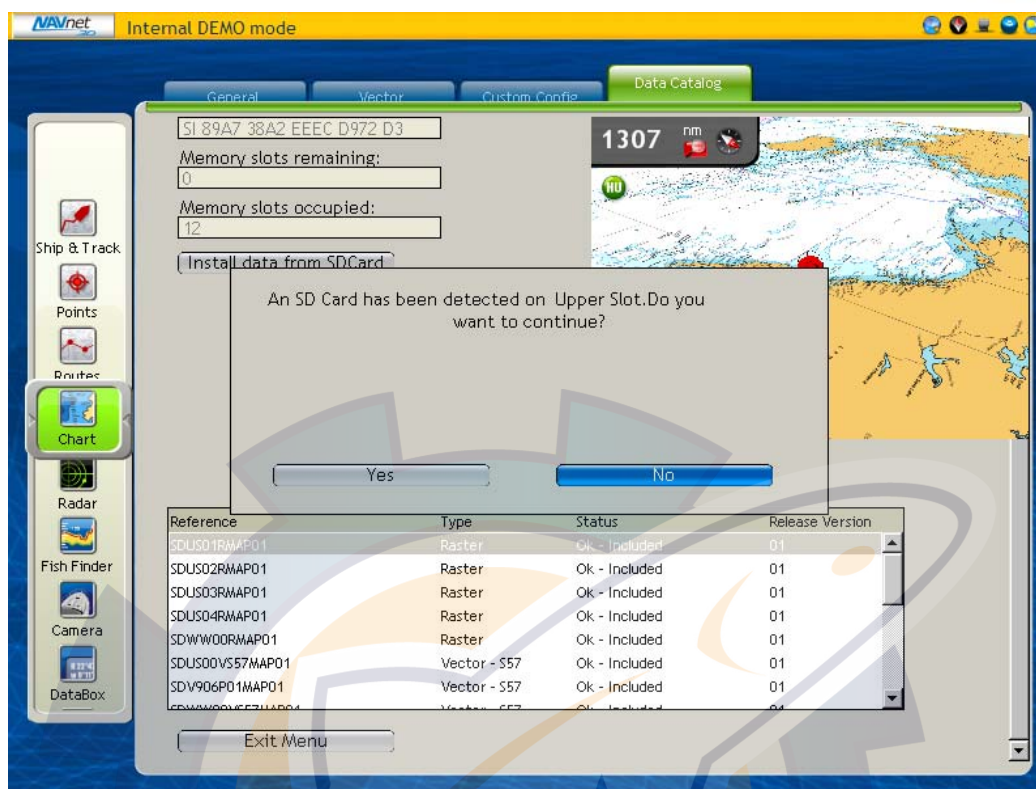


Figure 4.2

Next, a pop-up will appear at the center of the screen that asks you to select the file you want to copy (as seen in Figure 4.3). Push the RotoKey to validate.

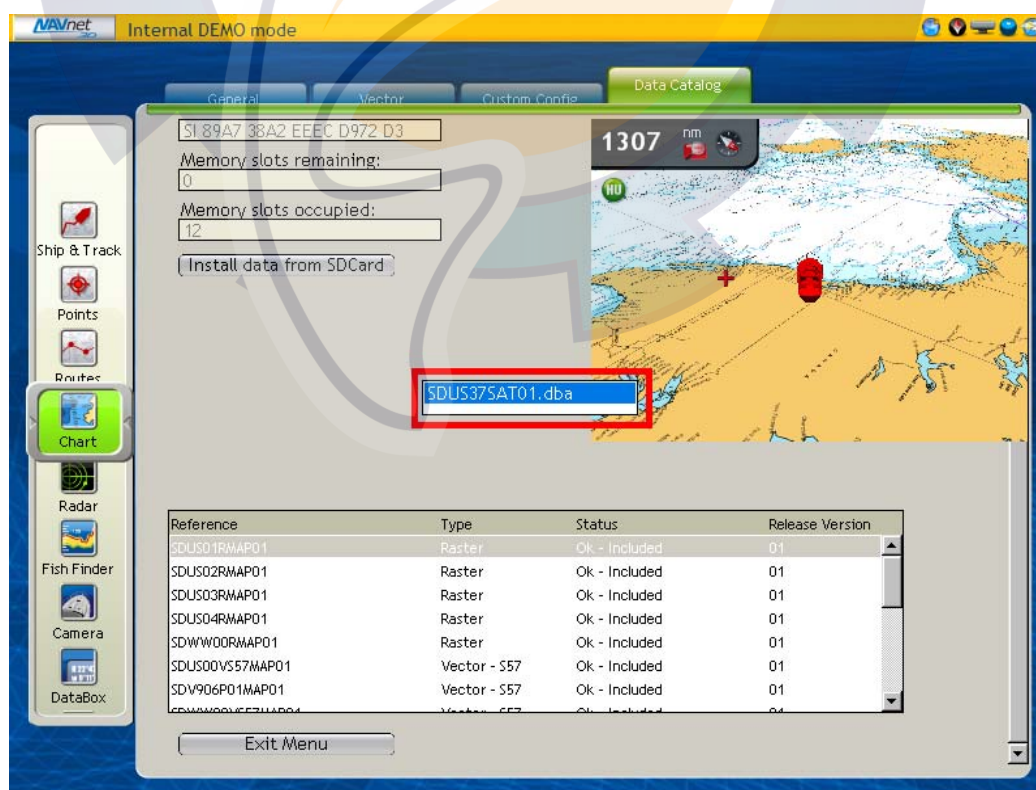
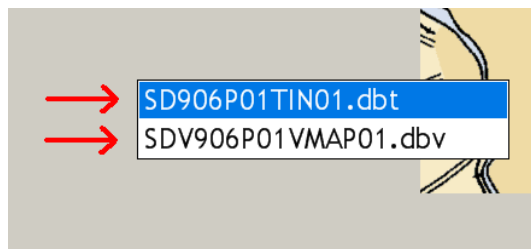


Figure 4.3

Note: SD-Cards normally contain only one file, but some may contain multiple files. If an SD-Card contains multiple files, the transfer process must be repeated for each individual file on the SD Card.



A final confirmation window will appear (as seen in *Figure 4.4*). Select “Yes”

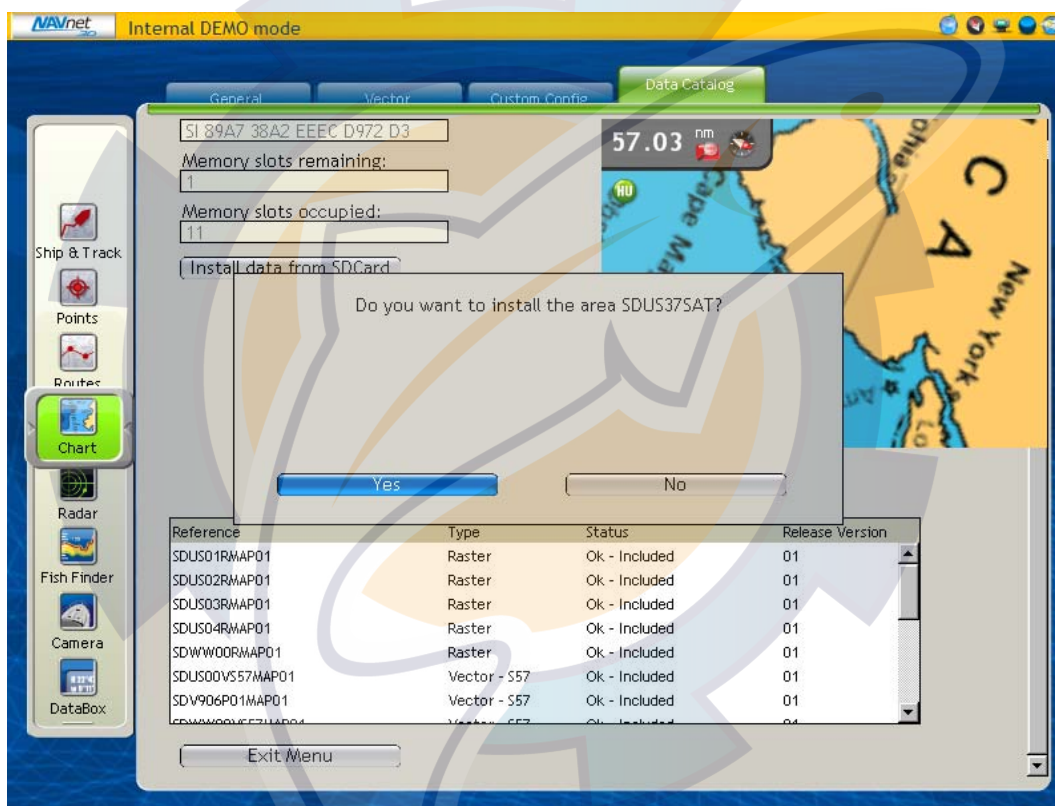


Figure 4.4

The transfer will begin and a window displaying “Please Wait” will appear (as seen in *Figure 4.5*). If you press OK, you may continue to use the system during the transfer process, which may take up to 90 minutes on the MFDBB and up to 20 minutes on the MFD8/12. Do NOT remove the SD-Card or turn the display off until the confirmation window appears stating that the transfer has been completed.

Note: Depending on the data being loaded, network system performance may be affected; it is highly recommended that chart loading be performed when the vessel is stationary, or at minimum when critical navigation and maneuvering are not required!

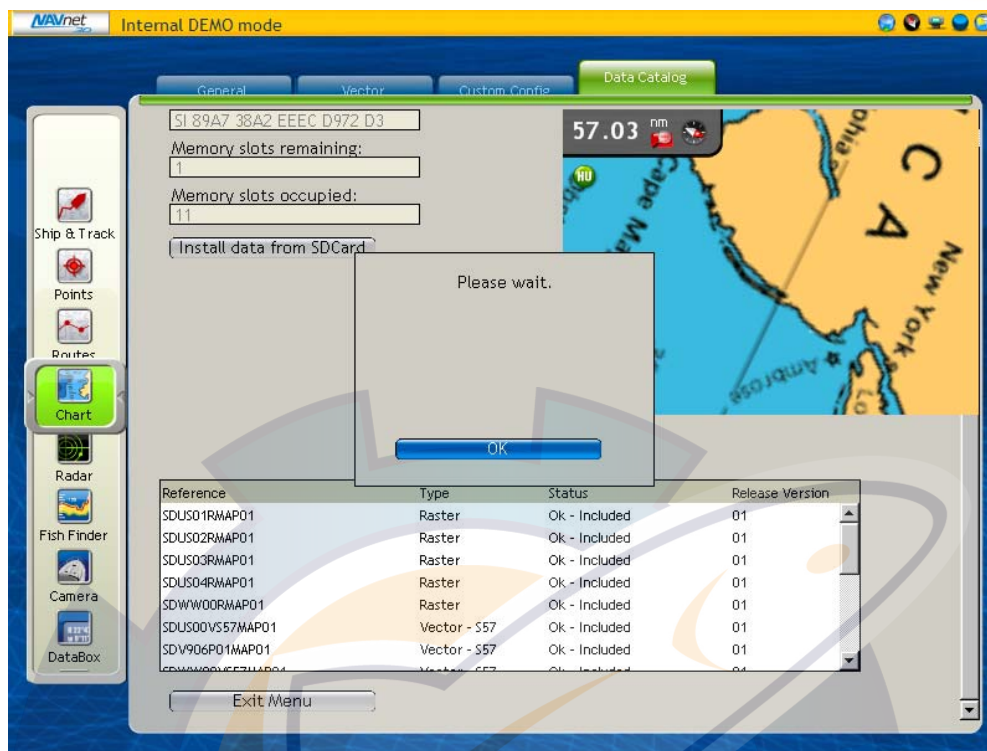


Figure 4.5

4.3. Unlock Chart Data

Note: Unlock Codes are not necessary for U.S. Satellite Photos, Vector Charts or Raster Charts. This section applies only to Chart Packages that have been purchased.

Charts not included as standard on the NavNet 3D MFD are encrypted because of royalty payments due to each Hydrographic Office. Unless an Unlock Code issued by Furuno is entered, the charts copied onto the NavNet 3D MFD cannot be viewed. The chart ordering process is based on SystemID (to identify the customer) and Unlock Codes (provided after purchase to unlock the chart).

The SystemID is required to purchase charts and must be provided when the chart is ordered. In order to access the SystemID, the NavNet 3D network must be set-up and configured properly. Press [MENU] on any NavNet 3D display and turn the RotoKey (clockwise) to select the "My NavNet" menu page. (See Figure 4.6):

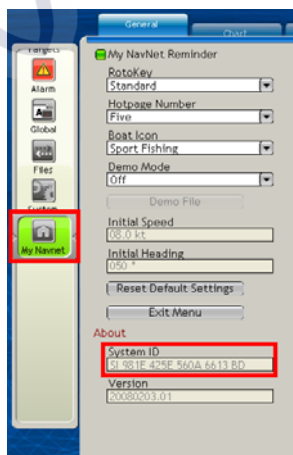


Figure 4.6

Simply order the Chart(s) using the Chart Part Number and the SystemID.

Note: The Chart Part Number(s) can be found online at <http://tinyurl.com/3uyogg>

An Unlock Code can only authorize one specific area (one Unlock Code per area per type of chart - Raster or Vector). An Unlock Code is linked to a specific SystemID (the same Unlock Code cannot be used to unlock the same area on different systems). At the end of the transfer process, a window will appear and prompt entry of the Unlock Code (as seen in *Figure 4.7*).

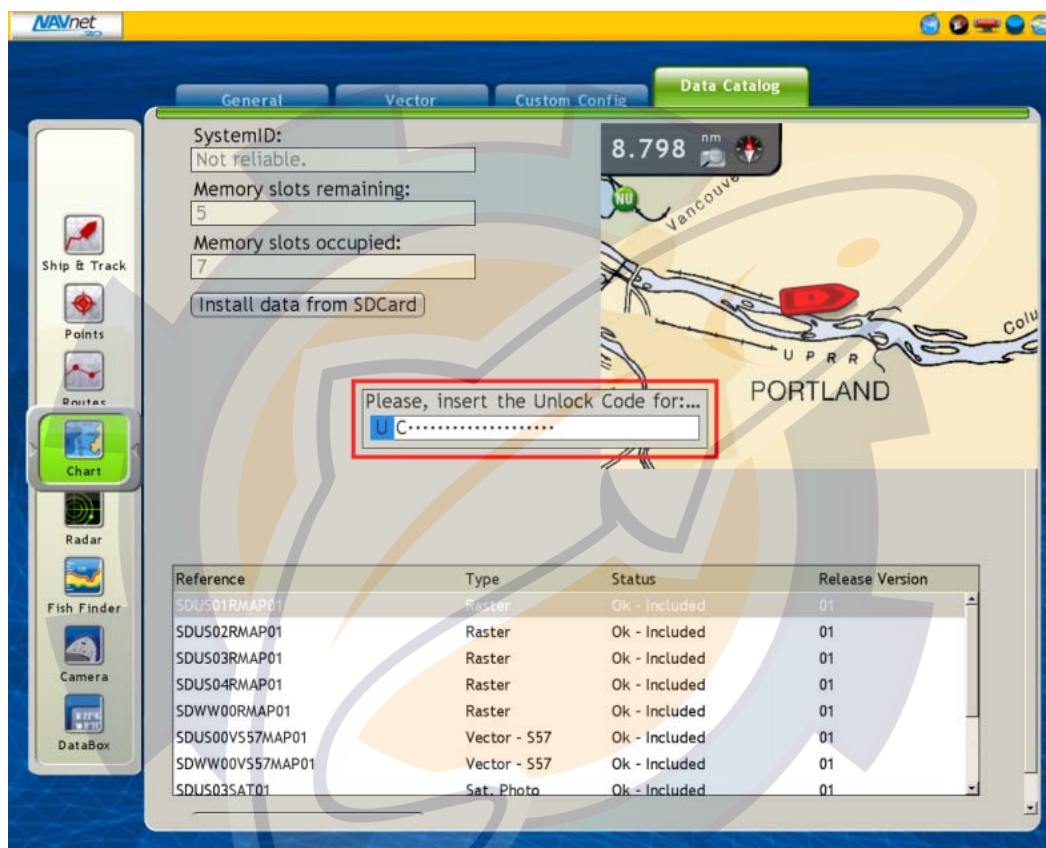


Figure 4.7

Use the RotoKey to enter the Unlock Code:

- Rotate the RotoKey to select your character
- Push the RotoKey to validate the current character and move to the next one
- Press the [CANCEL] key to move back and correct a previous character.

Note: This operation may also be performed via mouse and keyboard, if installed

If the Unlock Code is not available at this time, press the [CANCEL] key to close this window. The Unlock Code may be entered at any time from the Chart Catalog. Right Click on the area whose status is "Locked" and choose "Insert Unlock Code" (as seen in *Figure 4.8*).

Reference	Type	Status	Release Version
SDV906P01VMAP01	Vector	Locked	01
SDUS01RMAP01	Raster	Ok - Included	01
SDUS02RMAP01	Raster	Ok - Included	01
SDUS03RMAP01	Raster	Ok - Included	01
SDUS04RMAP01	Raster	Ok - Included	01
SDWW00RMAP01	Raster	Ok - Included	01
SDUS00VS57MAP01	Vector - S57	Ok - Included	01
SDWW00VS57MAP01	Vector - S57	Ok - Included	01

Figure 4.8

Note: If multiple data areas have been purchased, you must enter the Unlock Code for each corresponding area.

5. Memory Availability

5.1. Introduction

Every NavNet 3D MFD comes preloaded with the following data for the U.S.:

- USA Raster Charts
 - SDUS01RMAP01.dbr (East Coast)
 - SDUS02RMAP01.dbr (Gulf of Mexico and Great Lakes)
 - SDUS03RMAP01.dbr (West Coast)
 - SDUS04RMAP01.dbr (Alaska and Hawaii)
- USA Vector Charts
 - SDUS00VS57MAP01.dbv (Entire USA)
- USA 3D Bathymetric
 - SDUS00MAP3D01.dbt (Entire USA)
- 4 Satellite Photo Areas
 - SDUS03SAT01.dba (Cape Cod)
 - SDUS22SAT01.dba (Miami and the Keys)
 - SDUS34SAT01.dba (San Francisco South)
 - SDUS35SAT01.dba (San Francisco North)

You can remove some of this data to free memory blocks. For example, if you are boating on the East Coast only, you can remove the following areas:

- SDUS03RMAP01.dbr (Raster Charts for the West Coast)
- SDUS04RMAP01.dbr (Raster Charts for Alaska and Hawaii)
- SDUS34SAT01.dba (Satellite Photo for San Francisco)
- SDUS35SAT01.dba (Satellite Photo for San Francisco)

This will free 4 memory blocks that will become available for additional data.

5.2. Deleting Data

Press the [MENU] key, select the "Chart" page and select the "Data Catalog". Right click on the Data you want to remove, or select the data and push the RotoKey (as seen in Figure 5.1).

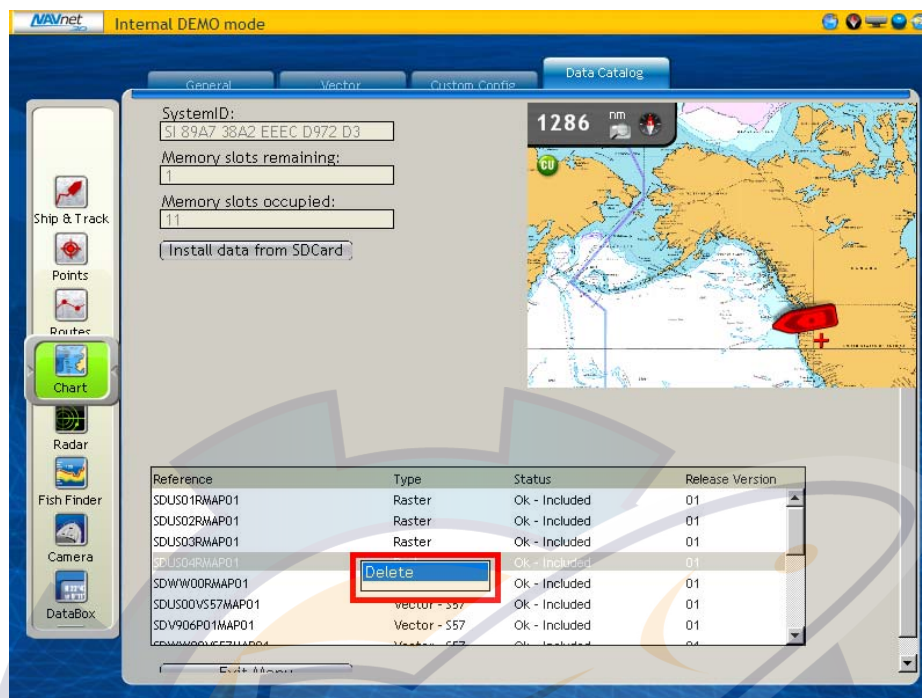


Figure 5.1

A confirmation window will appear (as seen in Figure 5.2).

Warning: This operation cannot be cancelled. Make sure you are removing the correct files before confirming. If purchased chart data is deleted by mistake, you can re-load the charts using an SD-Card and the original Unlock Code(s).

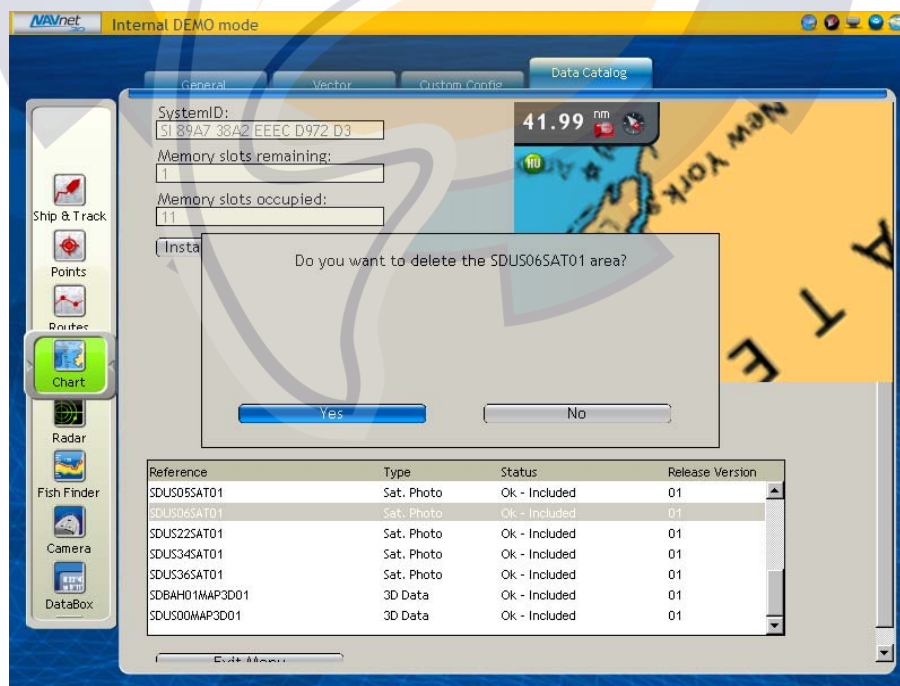


Figure 5.2

Note: If you deleted the wrong area by mistake, you can download this data from the Furuno USA website (<http://tinyurl.com/3uyogg>) or contact your authorized Furuno dealer.

6. Appendix

6.1. How to Format an SD-Card

6.1.1. Introduction

SD-Cards must be formatted properly before transferring files to them for use with NavNet 3D.

You can use the default function of Windows (Vista/XP or 2000) however we highly recommend you use a formatting program that complies with the SD Memory Card specification.

6.1.2. Format an SD-Card Using Software (recommended)

Download and Install the formatting software available at:

http://panasonic.jp/support/global/cs/sd/download/sd_formatter.html

Once the software is installed, insert the 2GB SD-Card you want to format and launch "SDFormatter" (Start > All Programs > Panasonic > SDFormatter V2.0). The Drive Letter of the SD-Card should automatically be selected (click "Refresh if not"). (see Figure 6.1)

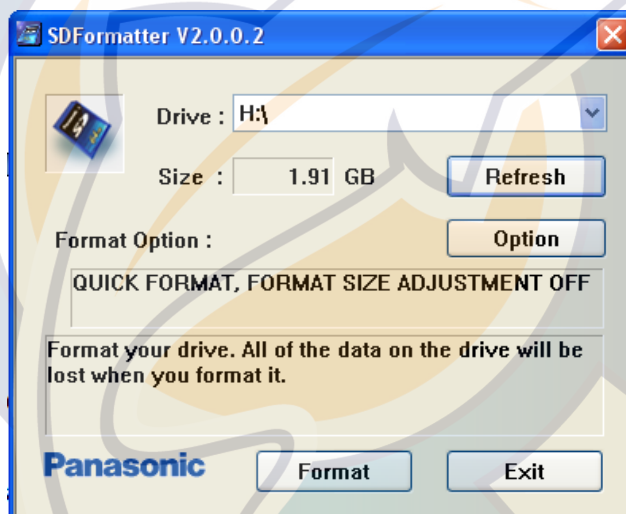


Figure 6.1

Leave all of the options on the default settings and click on "Format". A confirmation message will appear upon completion (see Figure 6.2)

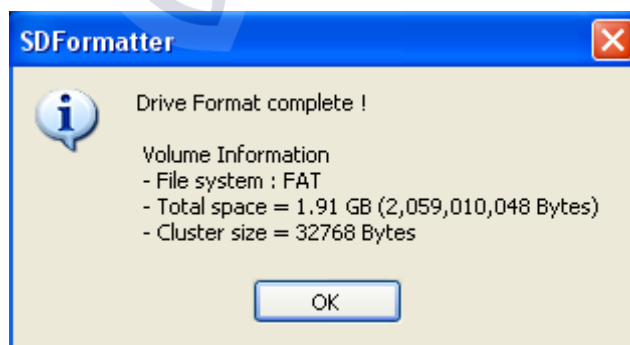


Figure 6.2

6.1.3. Format an SD-Card Using Windows

Insert the SD-Card into the SD-Card reader of the computer. If the SD-Card folder automatically opens, close it. Click Start and select “My Computer”. Right-click on the Removable Disk and choose “Format...” (see *Figure 6.3*). The name of your removable drive may vary.

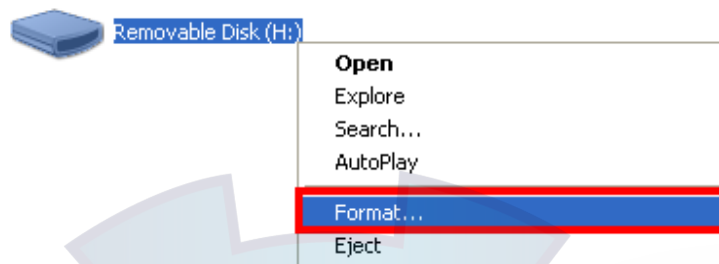


Figure 6.3

Select “FAT” and “Quick Format” then click on “Start” (see *Figure 6.4*)

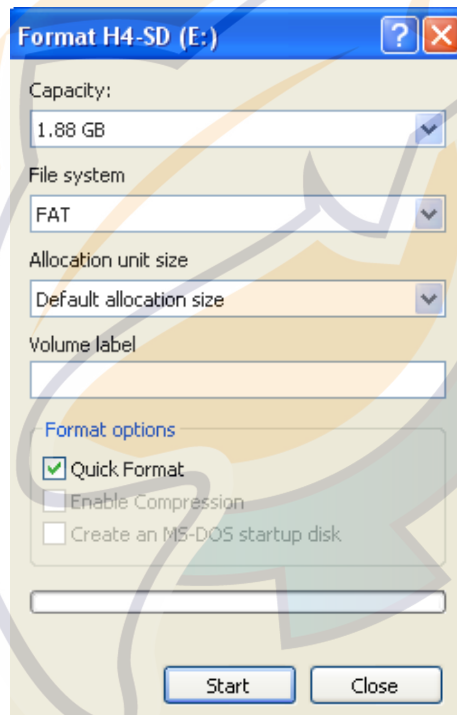


Figure 6.4

6.2. Recommended SD-Card

Furuno USA offers compatible 2GB SD cards (part number SD1-BNK-003). If you are purchasing blank SD cards from an alternate source, we strongly recommend you use only 2GB SanDisk SD-Cards, as they have been tested by Furuno USA for transferring data to NavNet 3D.