Garmin QDC Contour Maps User Manual

Contains detailed instructions on how to use your custom Garmin QDC Quickdraw contour maps

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INTRODUCTION

Over the years the State and County have been putting down concrete, steel and other material to form artificial reefs where fish can gather and populate.   However, for many years the location of the deployment was recorded using Loran and GPS system where the accuracy was intentionally being decreased for national security. Also the tug boat, barge and crane offset distances contributed to the inaccuracies. So when a deployment was made, the correct location typically was inaccurately recorded. So in an effort to eliminate the wasted time and gas driving around looking for dive and fishing sites, we developed a method to visualize the bottom and provide an extremely accurate map of the bottom structures.

About Contour Maps
The contour maps we produce are a birds-eye (overhead, looking directly down) view of ocean topography (bottom contours or bathometry). The Garmin Quickdraw Contour maps show depth from the surface and contain depth contour lines in one foot increments. Typically the closer the contour lines are the sharper the increase or decrease in depth which may indicate a wreck, ledge or reef which attract fish and the greater likelihood you will catch one. Scuba divers will love the ability to see the height and position of the structures and drop anchor, right "down the hatch".   Fisherman will love putting the hook right on the structure and "in the fish's mouth".   The places to fish and dive are obvious on the charts and extremely accurate.

How the Data Was Collected
Three boats were used for the past 18 years in the collection of hundreds of thousands of sonar data points with the corresponding WAAS GPS Latitude and Longitude from each reef. All contour charts are created from sonar data while slowly "trolling" in a "mowing the lawn" pattern directly over each reef or wreck. For example, more than 25,000 samples were collected for just one area reef.   Official county waypoints were used as a starting point and the entire area was scanned. When structures were detected, additional close-in scanning was performed to enhance detail.

How the Plots Were Created
The collected position and depth data is then adjusted for tides, interpolated to fill in uncollected data and analyzed to determine the bottom contours.   Official county waypoints were overlaid on the plot and the reef deployment data was correlated to nearest detected targets.   In some cases, the sites were confirmed by an underwater camera or by scuba diving the site.

How To Use These Maps
For artificial reefs, look for concentric circular contour lines with decreasing depths.   These are the structures put down to create the artificial reefs.   Adjust the depth colors in you GPS unit to help highlight the changing depth. For ledges and natural reefs look for long closely spaced lines that indicate the presence of a ledge or reef line. We continue to plot ledges and natural reefs until they run out.   For example the Cuda Ledge off of Sarasota is over a mile and a half long. If you move your GPS cursor over a contour map you will see the exact GPS latitude (North-South) and GPS longitude (East-West) coordinates.   A minute of latitude is 6,000 ft so 0.1 minute is 600 feet and 0.01 minute is 60 feet.   If you are out on the water and over a reef or wreck, your boats position will be shown over the contour map.

NOTE: All views on these charts should not be used for navigation.

Contacts
For additional information contact CSS Inc. at 941-739-8394 and please leave a message as I am usually out scanning new reefs and wrecks.   Even better is to E-Mail us at Bob@reefsnwrecks.com and we will promptly return your Email.   Checkout our free reef offer for the Alan Fisher reef later in this manual.

About the QDC Garmin Quickdraw Format

The charts in the QDC format are similar to the charts that come with your Garmin GPS unit but are much more detailed.

Important!

This format can only be used in recent Garmin Depth sounders and Chart Plotters that support the Quickdraw Format.   The list of supported units can be found on the Garmin Support website. A firmware update may also be required.

You will also need a PC to download the custom contour maps from our website, unzip the files and download the files to a SD or MicroSD card.

Determine what size SD card your GPS unit requires, SD or MicroSD.   An 8GB to 16GB Micro SD should be more than enough room for dozens of maps.   If you need a micro SD card, make sure you purchase the Micro SD adaptor for the MicroSD card.   Many times they are sold together.

MicroSD Card and Adapter

Your computer will also need to have a drive for SD cards.   If one is not built in, you will need to purchase one at your local store.

External SD Card Reader

About other Formats

We are working hard to produce other formats for other devices.   Please contact us if you need support for Raymarine. Check back often to the website as we will be adding additional formats as they are developed.

All the different formats will allow you to find the exact position for a perfect day of fishing or diving.

About the Areas

We are also working hard to expand our coverage area.   We have scanned over 200 sites on the west coast of Florida and have started to expand further north and south as well as adding reefs and wrecks on the east coast of Florida. Check back often to the website, as we will be adding additional reefs and wrecks on a weekly basis.

Contributions

If you have a boat, good quality GPS/Depth sounder and are interested in joining our data collection team, please contact us at Bob@ReefsnWrecks.com.   If you have a favorite area that you would like scanned, let us know and you will receive the completed scan in the format of your choice for free and a promise to limit the sale of that site.

Reefsnwrecks Website

Below is a screen shot from the ReefsnWrecks home page.   It has a series of tabs along the top row listing the Florida counties we have made custom contour maps for. In the following examples I have chosen the SARASOTA tab (yellow highlighted)
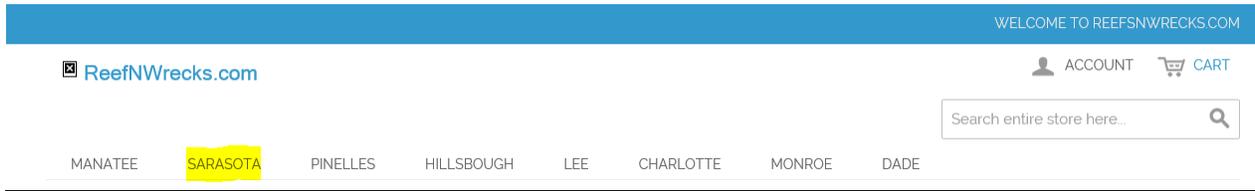
When that screen comes up, you will see an overall map of the Sarasota area showing the name and location of all the reefs, ledges and wrecks that we have available for you to purchase and download to your system for immediate use.
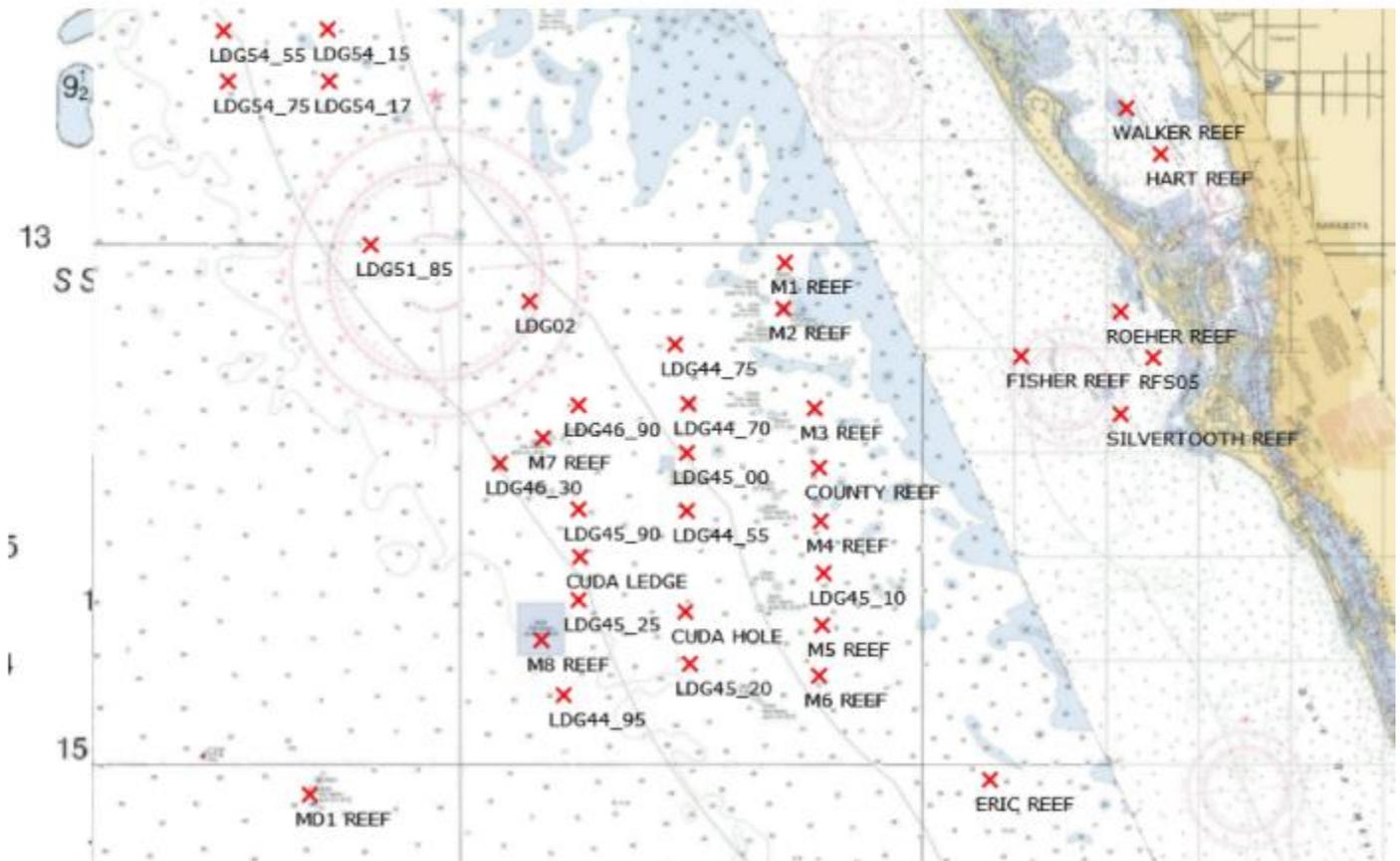

Scroll down the page and view the various reefs we have available.   Selecting the left box in the Shopping Options section at the top of the page just under the county map.   This view of the page gives you a little more detail and a description.

For example, if you selected Sarasota, Fisher Reef, you will see the following screen:
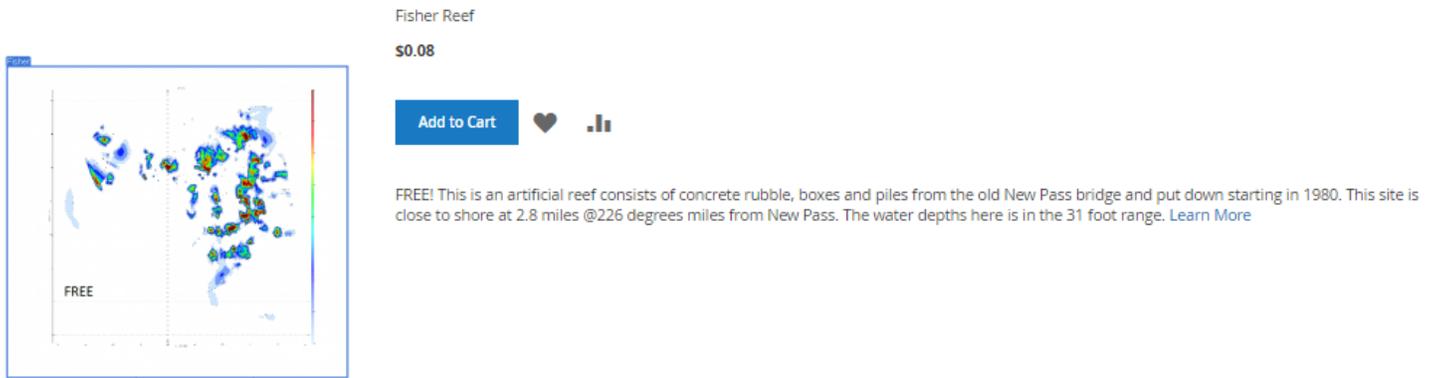
Fisher Reef

$0.08

Add to Cart

FREE! This is an artificial reef consists of concrete rubble, boxes and piles from the old New Pass bridge and put down starting in 1980. This site is close to shore at 2.8 miles @226 degrees miles from New Pass. The water depths here is in the 31 foot range. Learn More

If you left mouse click on the reef chart or the reef name it will take you to the format selection and Add to cart page. If you select *VIEW DETAILS,* it will take you to the format selection and Add to cart page.
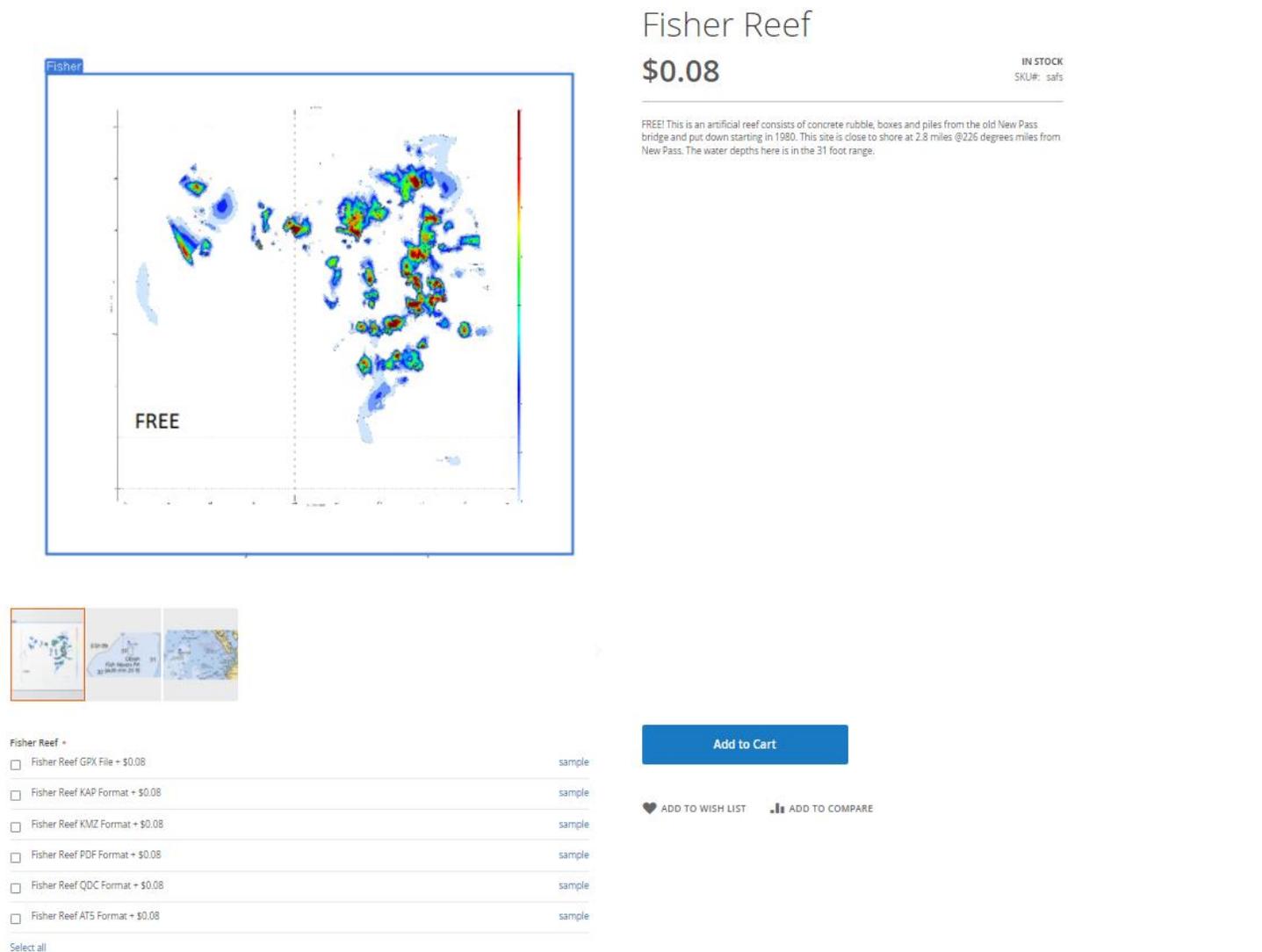
Fisher Reef

$0.08

IN STOCK
SKU#: safs

FREE! This is an artificial reef consists of concrete rubble, boxes and piles from the old New Pass bridge and put down starting in 1980. This site is close to shore at 2.8 miles @226 degrees miles from New Pass. The water depths here is in the 31 foot range.

Add to Cart

♥ ADD TO WISH LIST   ▪lı ADD TO COMPARE
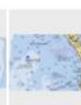
Fisher Reef *

☐ Fisher Reef GPX File + $0.08   sample

☐ Fisher Reef KAP Format + $0.08   sample

☐ Fisher Reef KMZ Format + $0.08   sample

☐ Fisher Reef PDF Format + $0.08   sample

☐ Fisher Reef QDC Format + $0.08   sample

☐ Fisher Reef AT5 Format + $0.08   sample

Select all

On middle left of the screen, you will see 3 thumbnail views. For each reef or wreck we have provided three views, a sample of the actual reef contour map, a close-up of the location on the NOAA chart showing the red custom contour reef map coverage and a third view zoomed out so you can get a better idea where the reef or wreck is located.   The description will tell you the distance off shore and bearing from the nearest inlet or landmark.

FISHER REEF

IN STOCK

This site is close to shore at 2.8 miles @226 degrees miles from New Pass. The water depths here is in the 31 foot range. The reef consists of concrete rubble and piles from the old New Pass bridge and put down starting in 1980.

MORE VIEWS

FISHER REEF

IN STOCK

This site is close to shore at 2.8 miles @226 degrees miles from New Pass. The water depths here is in the 31 foot range. The reef consists of concrete rubble and piles from the old New Pass bridge and put down starting in 1980.

MORE VIEWS

On the right side you will see a description of the reef or wreck, the distance off shore and bearing from the nearest inlet or landmark, the typical depth in that area and the approximate area shown. On the bottom there is a list of file formats that you can select to purchase.   You can select one or all depending on your needs and equipment.

If you select SAMPLE you will be able to download a copy of that format's user manual which has details on ordering, installing and using the selected format.

The GPX format is a file containing the latitude and longitude of points of interest for that reef. It includes all drops made on an artificial reef, the center of a wreck or a few points along a ledge or drop-off.   It is included in all the other formats or is available by itself at the base price.

When you select other formats, it adds the additional cost indicated to the base price.   For example, ordering the PDF format in the example above will cost $2.99 (GPX) + $1.99 (PDF) = $4.98.   Adding the KAP format to the order will cost $4.98 + $1.99 or $6.97. The total price will be shown in the upper right corner.

SKYWAY BRIDGE REEF

$6.97

IN STOCK

This site is directly south west of the old Sunshine Bridge approaches. The original two-lane bridge was completed in 1954. The main span of the northbound bridge was demolished in 1992 and the approaches for both old spans were made into the Skyway Fishing Pier State Park. It consists of concrete rubble lined up in rows put down in 1992. The water depths here are in the 12 - 22 foot range.

The KAP format contains the GPX file along with the custom contour chart for use on a PC using a full nautical navigation program named OpenCPN or on an iDevice like an iPad using a full nautical navigation app called SeaIQ.

The QDC format contains the GPX file along with the custom contour chart for use on a Garmin Depth sounder or Chartplotter compatible with Quickdraw Contours.   (Please check your Garmin unit for compatibility with Quickdraw contours on the Garmin website.) If you have a Garmin Handheld GPS chose the KMZ format.

The PDF format contains the GPX file above with a PDF file containing pages of contour maps that can be printed out and brought with you. It contains a list of the various waypoints, their deploy dates and a brief description of the reef along with an overall view and individual zoomed in views of the reef or wreck. Each view contains a grid so you can determine the GPS location of any interesting point.

The KMZ format contains the GPX file along with the custom contour chart in viewable format on Google Earth or on a Garmin Handheld GPS unit.   (Please check your Garmin hand held GPS compatibility for Custom Maps on the Garmin website.

I suggest you download the almost FREE Sarasota, Fisher Reef first and try it out on your unit.

Also on the right side you will see check boxes for your selection of the format you are purchasing.   You can order one or all of the different formats. Each of the graphic map formats contain the GPX file.

Once you have selected the format you want, select *ADD TO CART.* The following screen will be displayed:

If you want to select additional reef or wrecks select *CONTINUE SHOPPING*.   If you are finished, select PROCEED TO CHECKOUT.

If you select Proceed to Checkout you will go to the CHECKOUT screen.   As a new customer, select *REGISTER* to create an account and complete the requested information. Please be careful when entering your Email address as all purchases you make will result in an Email to you with a link allowing you to download what you have ordered.

Please use a strong password and record it for future use. We have no access to your passwords and they are stored in an encrypted format. If you are a returning customer, enter your Email address and Password on the right and select *LOGIN*.

Enter your name, address and Email address in the fields provided.   Please be sure your Email address is correct, as any purchase you make will send a link to that address.

Top section of the Register Form

Note: You must complete the ordering process to have your Email address and password registered.   If you back out before ordering and return later, you will have to re-enter your complete ordering information again.

When compete, press *LOGIN* or *CONTINUE* and you will be directed to the CHECKOUT PAYMENT screen.

Select your payment method and select *CONTINUE.*

CHECKOUT

1	CHECKOUT METHOD	Edit
2	BILLING INFORMATION	Edit
3	PAYMENT INFORMATION	

○ PayPal   What is PayPal?

You will be redirected to the PayPal website when you place an order.

○ Credit Card (saved)

CONTINUE   « Back

| 4 | ORDER REVIEW |

YOUR CHECKOUT PROGRESS

BILLING ADDRESS | CHANGE

John Q Public
55 Main Street
Anytown, Florida, 34888
United States
T: 941-555-1212

PAYMENT METHOD

Complete the forms with the requested payment information and press *CONTINUE.*

CHECKOUT

1	CHECKOUT METHOD	Edit
2	BILLING INFORMATION	Edit
3	PAYMENT INFORMATION	Edit
4	ORDER REVIEW	

PRODUCT	PRICE	QTY	SUBTOTAL
SKYWAY BRIDGE REEF	$6.97	1	$6.97
Download: Skyway Bridge Reef in KAP Format			
Skyway Bridge Reef in PDF Format			

Subtotal	$6.97
Grand Total Excl. Tax	**$6.97**
Grand Total Incl. Tax	**$6.97**

PLACE ORDER   Forgot an Item? Edit Your Cart

YOUR CHECKOUT PROGRESS

BILLING ADDRESS | CHANGE

John Q Public
55 Main Street
Anytown, Florida, 34888
United States
T: 941-555-1212

PAYMENT METHOD | CHANGE

Credit Card (saved)
Credit Card Type: MasterCard
Credit Card Number: xxxx-5642
Name on the Card: John Q Public

The last step is ORDER REVIEW where you can verify your order, billing address and payment method. When done, select PLACE ORDER .

In a few seconds you will receive an Email with a link back to the MY DOWNLOADABLE PRODUCTS screen. Select the blue "Reef XYZ" Format text (highlighted below) to start the download.

Note: You can download the files a maximum of three times.

ORDER #	DATE	TITLE	STATUS	REMAINING DOWNLOADS
100000007	5/3/2016	Cuda Ledge - CUDA LEDGE PDF FORMAT	Available	1

You may receive a download message like the one below.   This is because the downloaded file is an .exe self-extracting zip file and for security reasons the operating system needs to ask you if you want to proceed. Select Run to continue. No software is installed, only files copied to the folder you select.

lighthousepdf.exe is not commonly downloaded and could harm your computer.	Delete	Run	View downloads	✕

NOTE: We have set the price of Sarasota, Fisher Reef to $0.08 so you can download a full reef package in any or all the available formats and try them out.   Just follow all the instructions above to add it to your cart and checkout.   Sorry I have to charge 8¢ because PayPal cannot accept a $0 payment.

NOTE: All downloadable files are self-extracting .exe files and must be run on a Windows based computer or a computer with Windows compatibility. They cannot be downloaded directly to an Apple computer or tablet.   When downloading the .exe files, Microsoft will warn you that the files may be dangerous.   Select "Assume the Risk" to override the warning.

When activated, the files will automatically un-Zip the various files and place them in a folder of your chose.   No programs will be run.

Reefsnwrecks Downloaded File Installation

After you select Run the downloaded file will execute and it will give you directions on what to do and suggests where to put the files.   The process simply unzips a few files and places them in the folder you specify.
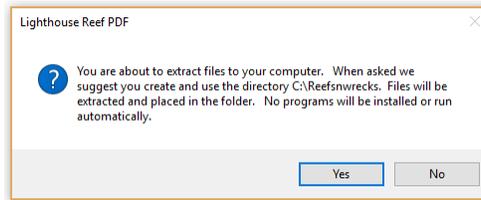
Please read and accept the license agreement.
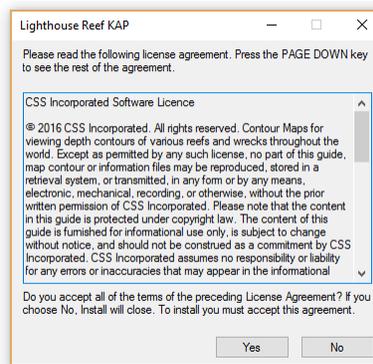
Browse to where you want to put the files.   We recommend a dedicated folder called C:\Reefsnwrecks and a folder for each county and reef.   For example C:\Reefsnwrecks\Sarasota\Fisher.
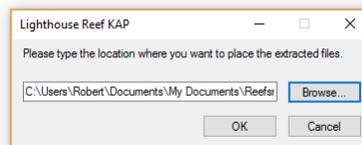
When you are complete you will see this final screen.
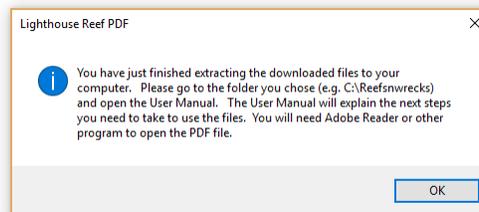
It will copy the QDC_User_Manual.pdf, "ReefQDC".ZIP file which contains the custom contour maps and "Reef".gpx file which contain all the waypoint for that reef to the folder you direct.   We recommend a folder named C:\ReefsnWrecks*County\Reef* but any folder will do. (Our instructions will assume C:\Reefsnwrecks) Just be consistent and place all downloads into the appropriate folder.

C:\Reefsnwrecks\Broward\Lighthouse Reef

Share   View

> This PC > OSDisk (C:) > Reefsnwrecks > Broward > Lighthouse Reef

Name	Date modified	Type	Size
Lighthouse.gpx	9/25/2016 11:17 AM	GPX File	
Lighthouse.zip	7/6/2017 11:56 AM	zip Archive	
qdc_user_manual.pdf	1/20/2017 7:12 PM	Adobe Acrobat D...	4,
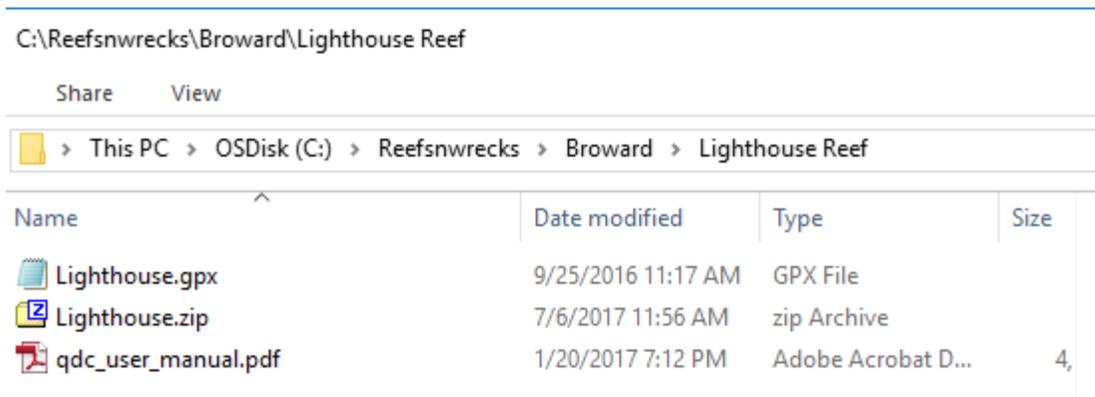
The QDC format has a number of files associated with each reef or wreck.   To download them efficiently they have been Zipped up and need to be Un-zipped for you to use.   First we want to set up a common folder where we un-zip all the files.   Go back to C:\Reefsnwrecks\ and create a folder named "Contours".

| ⇊ | C:\Reefsnwrecks |

Home   Share   View

∨ ↑ > This PC > OSDisk (C:) > Reefsnwrecks

Name	Date modified	Type
Broward	7/6/2017 12:02 PM	File folder
Contours	7/6/2017 12:29 PM	File folder
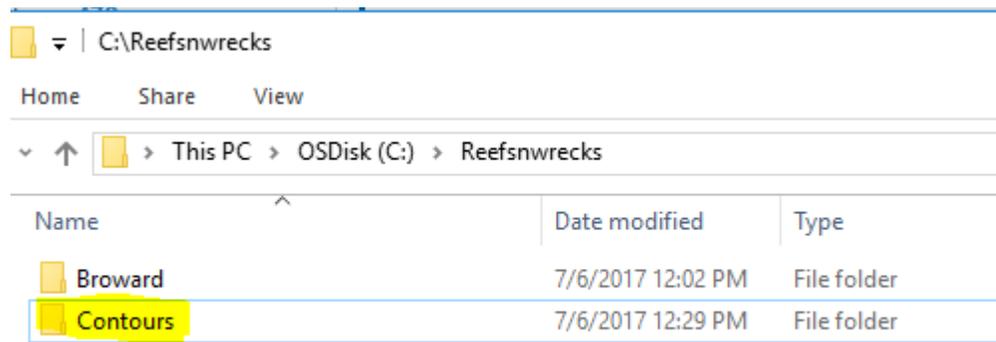
This folder will hold all the QDC and associated files needed to be placed onto the SD card.

Go to the "Reef folder where the zip file is located and right click on the "*Reef*".zip file and select 7-Zip then Extract files…   You can download 7-Zip for free from the Internet or use the Windows Zip extractor.

∨ ↑ > This PC > OSDisk (C:) > Reefsnwrecks > Broward > Lighthouse Reef

Name	Date modified	Type	Size
Lighthouse.gpx	9/25/2016 11:17 AM	GPX File	7 KI
Light...	7/6/2017 11:56 AM	zip Archive	32 KI
qdc_...	...17 7:12 PM	Adobe Acrobat D...	4,606 KI

Open

7-Zip   >   Open archive

⊞ Scan with Windows Defender...   Extract files...

Open with   >   Extract Here

Ⓒ Select Classification Label   Extract to "Lighthouse\"

Restore previous versions   Test archive

Send to   >   Add to archive...

Cut   Compress and email...

Copy   Add to "Lighthouse.7z"

                                                   Compress to "Lighthouse.7z" and email

Create shortcut   Add to "Lighthouse.zip"

Delete   Compress to "Lighthouse.zip" and email

Rename

Properties

13

A window will pop up asking you where to place the extracted file.   Point to the C:\Reefsnwrecks\Contours folder and select OK.
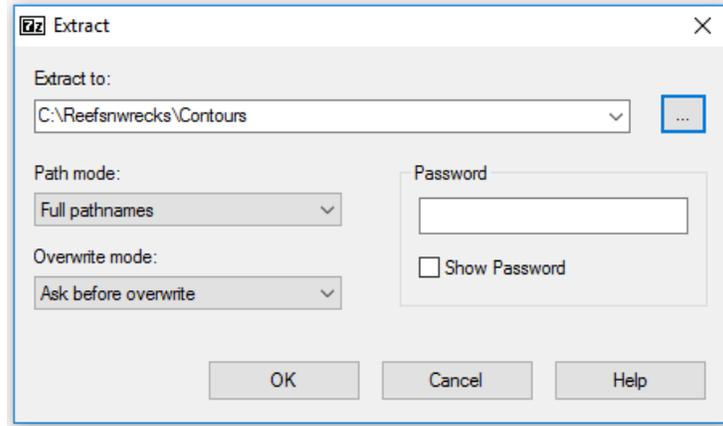
You should see a series of folders starting with N3#######, a map_information.bin file and a N###########.qan file. (shown below).
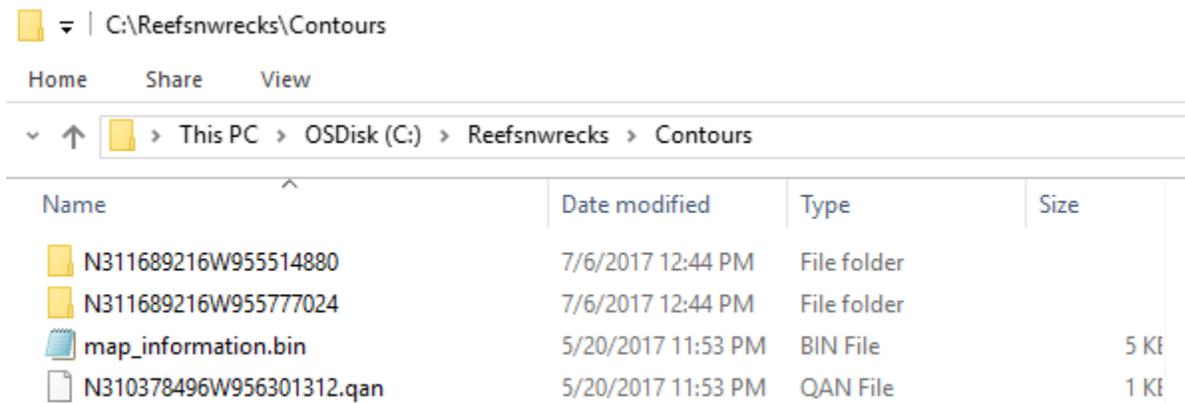
If you have additional Zip files that you have purchased and downloaded, repeat the Un-Zip process again to this same C:\Reefsnwrecks\Contours folder.   Accept Yes when you get a warning that map_information.bin file will be over written.   Only one of the files is necessary.
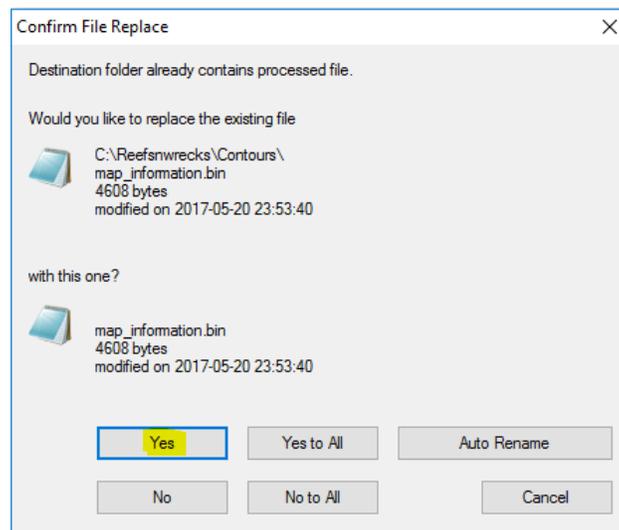
Now that you have the Contours folder created and the Quickdraw contour maps loaded it is time to create a folder called C:\Reefsnwrecks\UserData.   In C:\Reefsnwrecks create a new folder and name it UserData.

Go to each downloaded *Reef* folder and copy the *Reef*.gpx file to the UserData folder.   Add the .GPX file for each reef to the folder.   In the example below, the waypoints for Fisher, M1 and Roeher reefs have been copied.

When you are finished unzipping all the files and copying all your GPX files you will need to copy the Contours and UserData folder to your SD card. In the example to follow I will assume your SD card is inserted in your PC or SD card reader and has been assigned a drive letter of "E:"   Your drive letter might be different depending on what other drives you have in your system.   The drive will appear when you insert the SD card.

Create a new folder and name it *E*:Garmin if it does not already exist.   Double left mouse click on the folder and open it.   Create a new folder and name it Quickdraw if it does not exist.   Copy the Contours folder we created above to the Quickdraw folder.
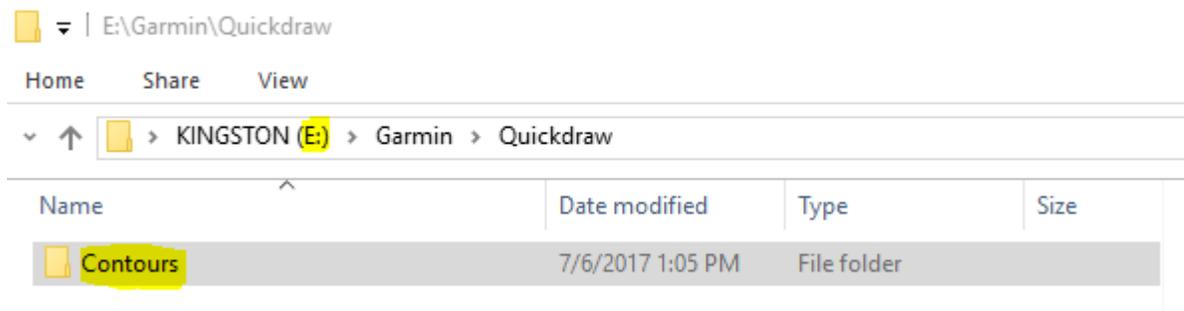
Return to the Garmin folder and copy the UserData folder to this folder as shown below.
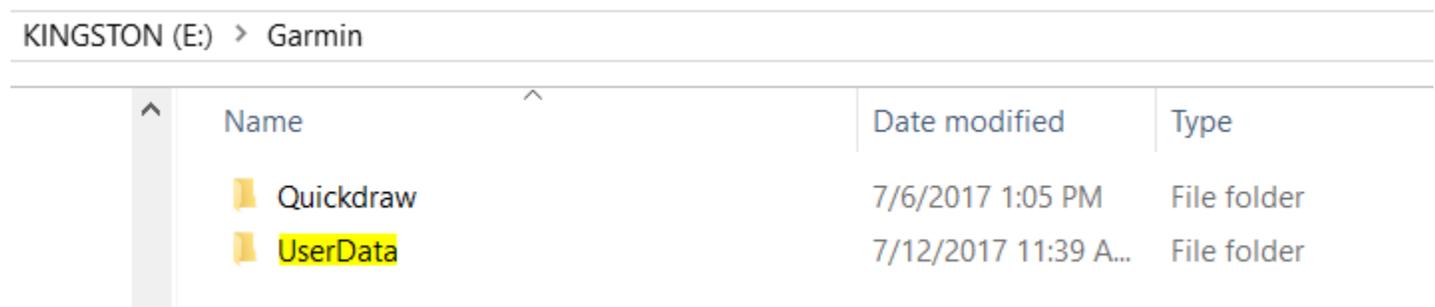
Remove the SD card from the PC or Card Reader and place it into the small covered SD card slot on your GPS chart plotter. Two examples are shown below. Your Garmin GPS chart plotter may differ.

Inserting Memory Cards

You can use optional memory cards in the chartplotter. Map cards allow you to view high-resolution satellite imagery and aerial reference photos of ports, harbors, marinas, and other points of interest. You can use blank memory cards to record sonar data and transfer data such as waypoints, routes, and tracks to another compatible Garmin chartplotter or a computer.

1 Open the access flap or door on the front of the chartplotter.
2 Insert the memory card.
3 Press the card in until it clicks.
4 Close the door.

Getting Started

In the unit the custom contour maps are read from the SD card but the waypoints must be transferred into the GPS main memory. When the SD card is inserted the following menu is displayed:

Select Manage User Data. The following menu will be displayed:

Merge from Card will combine the waypoints on the SD card with the waypoint that may already be loaded or set in the GPS chart plotter.   Replace from Card will load the waypoint that you have loaded into the UserData folder and delete all other waypoints in the chart plotter.   Use Save to Card if you want to save any waypoint you do not want deleted when using Replace from Card. **Note: Make sure the File Type Option is set to GPX as shown above.**

The custom contour maps have 10 depth ranges, each with a separate color.   For example, 0 to 5 feet in depth is light blue. 6 to 15 red. 16 to 25 pink and so on.   Go to the Navigation Chart Menu and select Quickdraw Contours, Settings, Depth Shading and select the 10 depth ranges and colors that you would like.   I would suggest determining your maximum depth and dividing it into 10 ranges.   Then pick 10 colors to use for those ten ranges.   I like red to indicated shallow depth then yellows, greens and finally blues to show the deepest depth range. (Deep Blue Sea) Any color combinations will work equally as well.   If you adjust the range for each reef as needed, the shallower, higher off the bottom wrecks and reefs will be red and gradually change color till you get to the deeper areas which will be dark blue.

With the SD card inserted into the Garmin Chartplotter the unit will display small green boxes on the screen in the area of each reef. As you pan and zoom in, the green boxes will get larger and larger until you see the custom contour map in the display.

As you zoom in using the + key, more detail will be displayed.
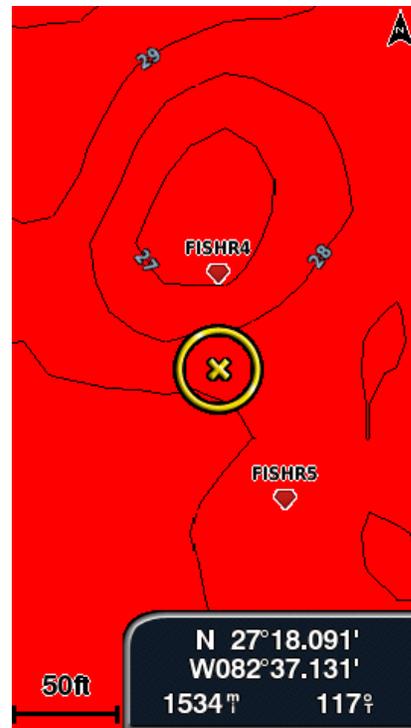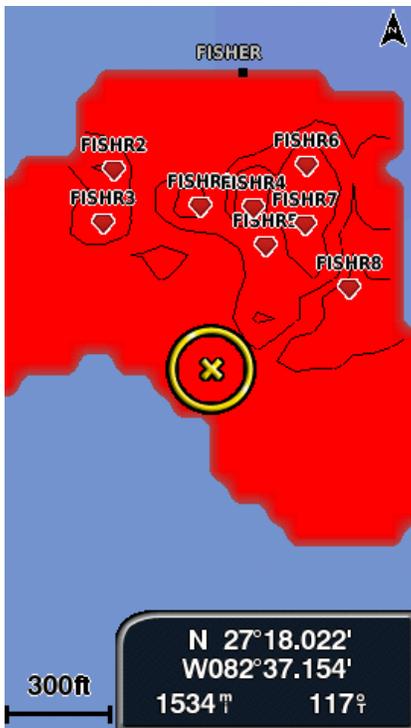
If you are out on the water over this area you boats position will also be displayed over this map.   The GPX waypoints you loaded will also be displayed.
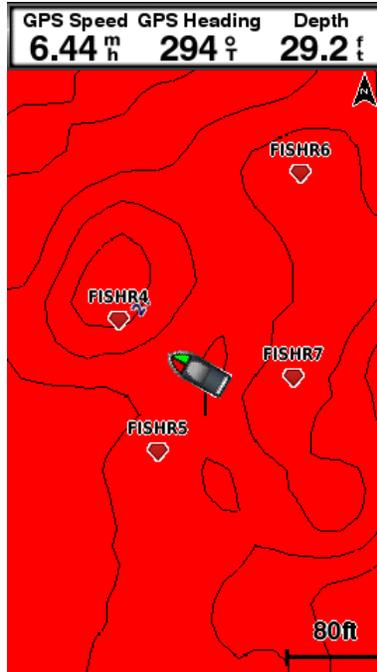
Note that as you move the GPS chart plotter cursor around, the latitude and longitude will be displayed in the bottom right hand corner of the screen.   Also note the distance key in the bottom right of the display.   In the example above the boat is about 80 feet from FISHR4, 5 and 7.

By using the + key on the depth sounder you can continue to zoom in to see greater details.   You can zoom in to 20 feet in most cases. In the illustration below we have zoomed in all the way on waypoint FISHR1. If you were on the water in that area, you will see your boats position right on the chart and be able to position your boat for optimum fishing or diving.

We strongly urge you to read the User manual for your Garmin GPS Chart plotter and become familiar with all the other features of your unit.

Getting Help

Any support questions or problems associated with your Garmin GPS should be directed to their support team.

Any questions about the Contour Maps should be directed to Bob@reefsnwrecks.com.

Updates and New Charts

Thank you for your purchase. Check back to the web site often as we are adding new areas and natural ledges to our inventory all the time.   Remember, adding new charts are as simple as copying then to your Reefsnwrecks folder and unzipping them to the Contours folder then copying the folder to your SD card.