



THE CHART LOCKER ReadMe File

26 May 2024

Hello.

Thanks for taking the time to read this file.

You can find lots of information about MBTiles and how to use them at <https://TheChartLocker.com>. There's also a video tutorial and hundreds of MBTile charts are available at the website.

On the website, you can sign up for *The Chart Locker Talker* newsletter which will keep you apprised of new and updated charts, plus entertain you with tips and other interesting news and trivia. (We will never share your email, so don't worry.)

If you find these charts useful (or even if you don't), please make a donation at TheChartLocker.com. Because we believe in the free sharing of cruising information, and abhor the monetization of the cruising life by both cruisers and corporations, **every cent is donated to organizations dedicated to protecting our oceans (currently [The Story of Stuff Project](#))**. Isn't that a much better thing to do with your money than giving it to some cruiser making videos who wants you to fund their cruising? Or cruisers who charge you for information other cruisers will gladly share for free? That's a silly use for your hard-earned cash when you could be doing some real good.

Bonne navigation!

Bruce Balan & Alene D. Rice

s/v Migration

svMigration.com

TheChartLocker.com

READ THIS VERY IMPORTANT NOTICE!

It's up to you -- not these files or the people who made them -- to keep you, your crew, and your boat safe. We did our best with these files, but we make no promises.

These files have errors and do not display all possible dangers. Compare and use other chart sources. Don't be lazy. You are responsible for navigating your vessel safely.

Always use multiple sources when navigating -- including your eyes looking at the real world, not just at the chartplotter.

HOW TO USE THESE FILES

OpenCPN Version :: OpenCPN 5.x is required to use MBTiles. They cannot be used with OpenCPN 4.x. If you are using OpenCPN on an Android device, you MUST purchase the app that costs US\$10. MBTiles will not work with the crappy (and unofficial) free version.

Keep your CHARTS folder clean :: Don't accept charts from everyone you meet who offers a hard drive full of charts. And don't throw charts into a single folder. Organize your charts and get rid of anything that is outdated or not useful. KAP files, particularly, are of no use if you have good coverage of the same area with MBTiles.

Folder Structure :: Create an organized folder structure on your computer. Unzip and copy files into folders. For example:

C:/charts
C:/charts/Mexico_mbtiles
C:/charts/Mexico_mbtiles/Overview
C:/charts/Mexico_mbtiles /Mainland Pacific
C:/charts/Mexico_mbtiles /Sea Of Cortez
etc.

However, in some areas (like New Zealand) it may be easier to put all files of the same *type* together in the same folder:

C:/charts/New Zealand_mbtiles/ArcGIS
C:/charts/New Zealand_mbtiles/BingSat
C:/charts/New Zealand_mbtiles/GoogleSat
C:/charts/New Zealand_mbtiles/Navionics

In this case, each folder would have the NZ Overview and each of the NE, NW, SE, SW files of the same type. This makes it very easy to create chart groups (which you *must* do, see below).

Remember to remove the ZIP files from the chart folders when you are finished unzipping.

Load What You Need :: When "installing" charts in OpenCPN, you will find OpenCPN much more responsive if you only choose those folders with the charts you currently need. For example, if you are sailing in Mexico, don't include charts for French Polynesia. Never include your entire "Charts" folder! If necessary, you can keep the charts that you are not using on an external hard drive and swap them out to your computer or tablet's internal storage as you need them.

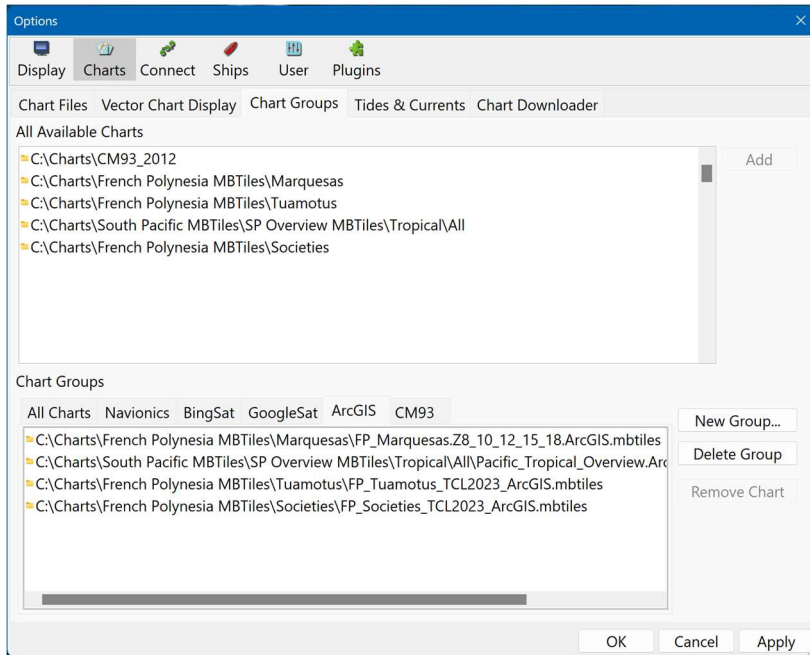
Overviews :: Most areas have a separate overview. You should include these files when you use the more detailed files for an area; it will look better when using quilting. However, there is no need to use a local island group overview if you are using one of the Pacific Overviews that covers the area of interest. To reiterate, you should load an overview for the broader area where you are sailing AS WELL AS the detailed charts for your area/island group.

Zoom Levels :: Charts created after June 2023 are usually Z8 to Z18 unless they are very large. Those charts will not include Z17. Before June 2023, coastal and island charts are usually Z12, Z15 and Z18. Some locations may not have all zoom levels. If that is the case, charts usually include the best zoom level available. Overviews are Z8-Z12.

Type of Charts :: Most chart sets include Bing, Google and ArcGIS satellite imagery as well as Navionics charts. Remember that MBTiles based on vector Navionics charts ARE NO LONGER TRUE VECTOR CHARTS; they are raster MBTiles at various zoom levels.

Chart Groups :: We highly recommend [reviewing OpenCPN's Chart Group documentation](#) and using chart groups with MBTiles. For example, if you are sailing in Mexico's Sea of Cortez, create four groups: Nav, ArcGIS, BingSat and GoogleSat. Put the Sea of Cortez Navionics charts in one group, the Sea of Cortez Bing satellite charts in another, and so forth. Then you can easily switch back and forth between the type of chart you want to view. To switch chart groups, use the 1, 2, 3, etc. keys, or right-click and select Chart Groups. Again, [read OpenCPN's Chart Group documentation](#). It's an incredibly important and cool feature; another proof that OpenCPN is the best charting program out there. [Thanks OpenCPN Developers!](#)

Overlapping Areas :: If you load two areas that overlap – for example, the north and south coasts of Cuba – the higher zoom levels of one area may take precedence over the lower zoom levels of the other area. In the example above, you may see Z12 tiles from the north coast instead of the Z18 tiles of the south coast. In this case, uninstall the chart for the coast you are NOT sailing on. Or you can turn Quilting off and use the chart keys at the bottom of the screen to select the chart you'd like to use.



Folder Organization :: Feel free to reorganize your folder structure to allow easier and more logical creation of chart groups. Do what works for you but do keep your charts organized.

Quilting :: Using these charts in OpenCPN works best with Quilting turned on (Press the 'Q' key). However, if you do not use chart groups (which you should!), it is often better to have Quilting turned off. This is really important: Clicking on a chart in the OpenCPN chartbar at the bottom of the screen excludes the chart when quilting is off, and selects the chart when quilting is on. Read that sentence again and make sure you understand it.

OpenCPN 5.0 Release Notes about MBTiles ::

OpenCPN treats the MBTile format different from normal raster and vector charts. MBtiles are NOT fully capable and quiltable charts. They are used as switchable overlays. This is seen as the best compromise considering the unknowable zoom composition and accuracy of tilesets loaded from unknown sources.

MBTiles are shown as switchable overlays to whatever base chart sets are loaded. In the picture below, the background map is the base-map and the MBTiles is a satpic overlay. There are four charts in the chart-bar. All are MBTiles. Three are of a darker shade with a red "X". One is a lighter shade of violet and represents the visible satpic. Left click on a MBTiles piano key is a visibility toggle shortcut. Same effect as Right-click->"hide" on a piano key. Clicking on one of the darker shade buttons makes that MBTile chart visible. The button changes to a lighter shade and the red "X" disappears. (Note: this is only if quilting is OFF.)



With MBTiles it's advisable to show the charts outline - use the "O" shortcut key. If a chart is not visible, and there is no red "X" on the piano key, zoom in until it's visible.

MBTiles use the Web Mercator projection, with possible quite large errors in geo referencing. In real life these large errors are hard to find.