

# NavG3: Using GeoMapApp to make a bathymetry underlay

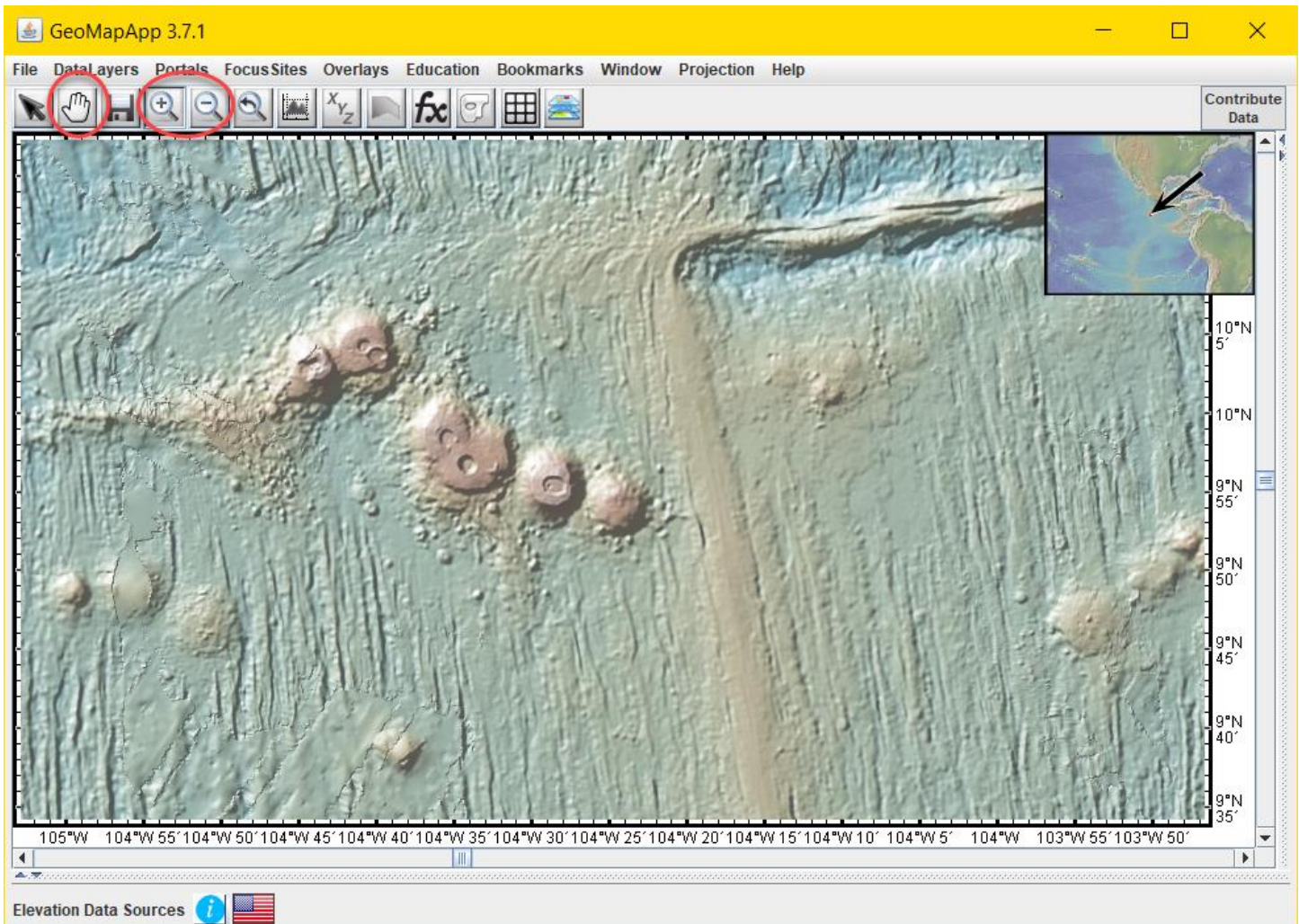
2024-02-15: Lamont-MGDS

GeoMapApp is a free, map-based data discovery and analysis tool developed at Lamont-Doherty Earth Observatory. Its base map is the Global Multi-Resolution Topography synthesis which is updated about four times each year when new bathymetry swath and grid data sets are incorporated.

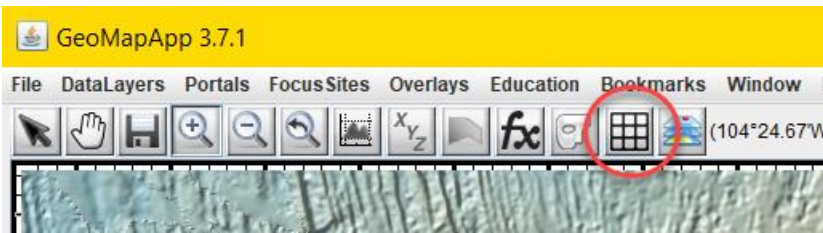
To install GeoMapApp, download it from <http://www.geomapapp.org/> (the Download Links for Mac, Windows, Linux/UNIX are on the left).

Once installed, GeoMapApp may be used to quickly and easily generate a NavG3-compatible bathymetry underlay. Here are the steps.

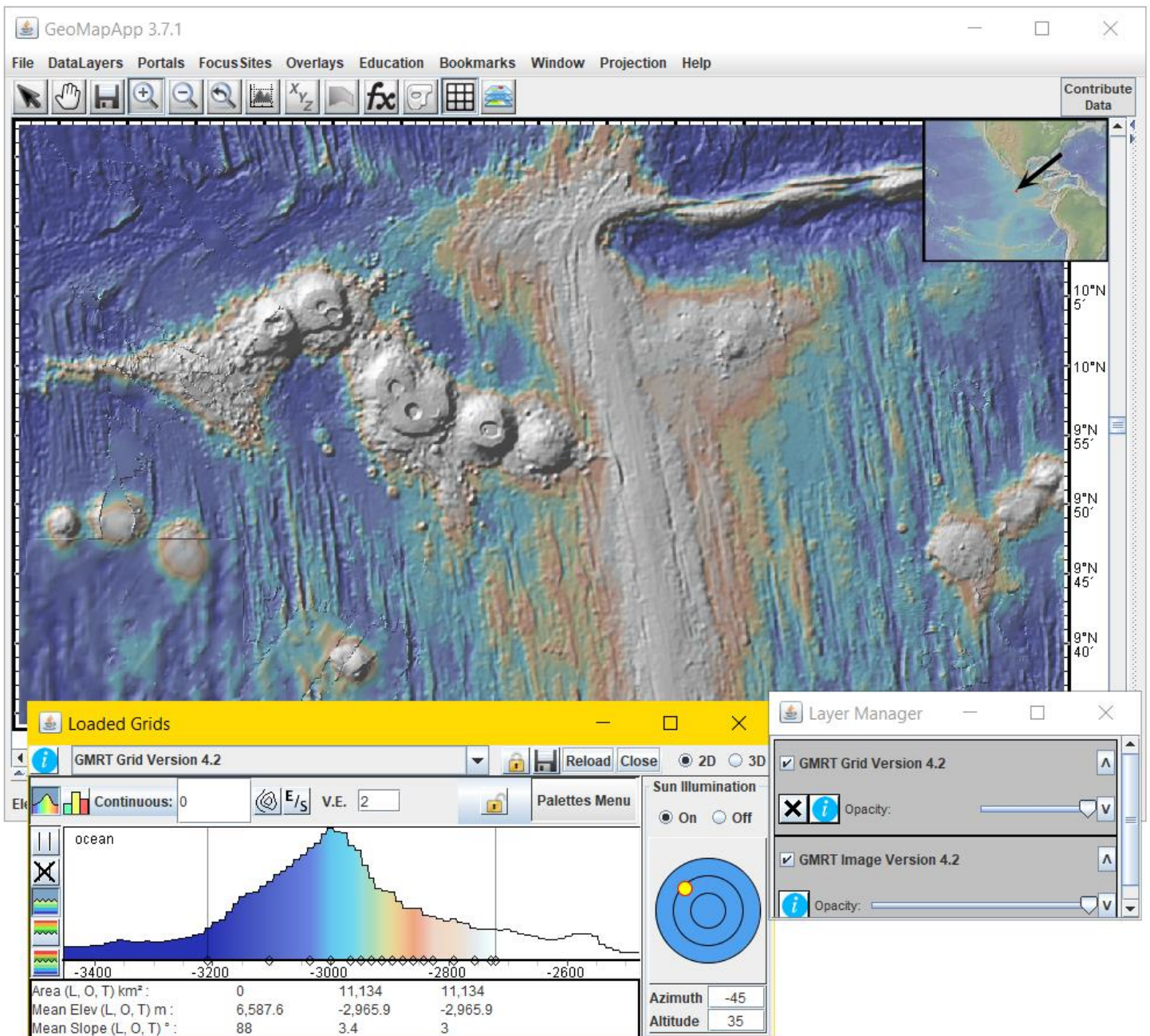
- 1) Double-click the GeoMapApp icon to open GeoMapApp.
- 2) Use the zoom and pan button in the tool bar to find your area of interest. In this example, the bathymetry map has been zoomed to an area covering part of the East Pacific Rise and the Lamont Seamounts. The map shown is a pre-made JPEG image. The next step will be to load the underlying bathymetry grid from which this image was made.



3) Click the Load/Unload GMRT Grid button (the waffle iron icon) in the tool bar to load the underlying bathymetry grid.

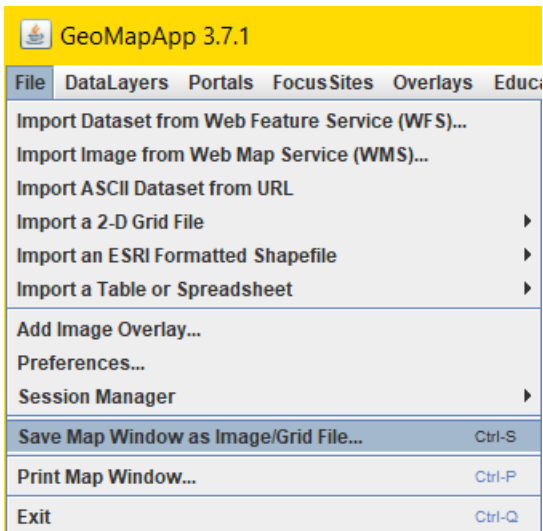


4) Once the grid has been loaded, the map colours will change and two new pop-up windows are displayed – the Loaded Grids window and the Layer Manager window. These two pop-up windows may be ignored.

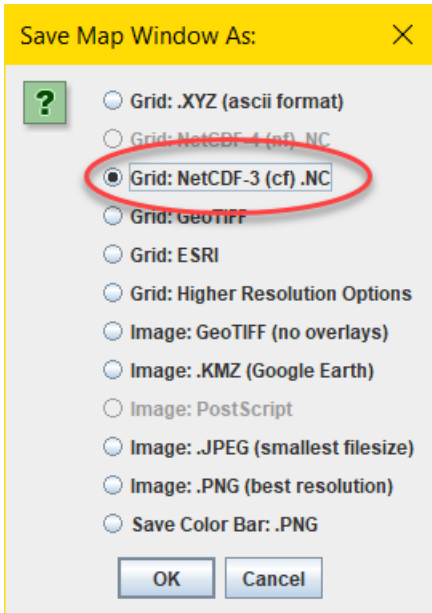


5) Save the bathymetry as a NavG3-compatible netCDF ".grd" file by clicking File > Save Map Window as Image/Grid File.

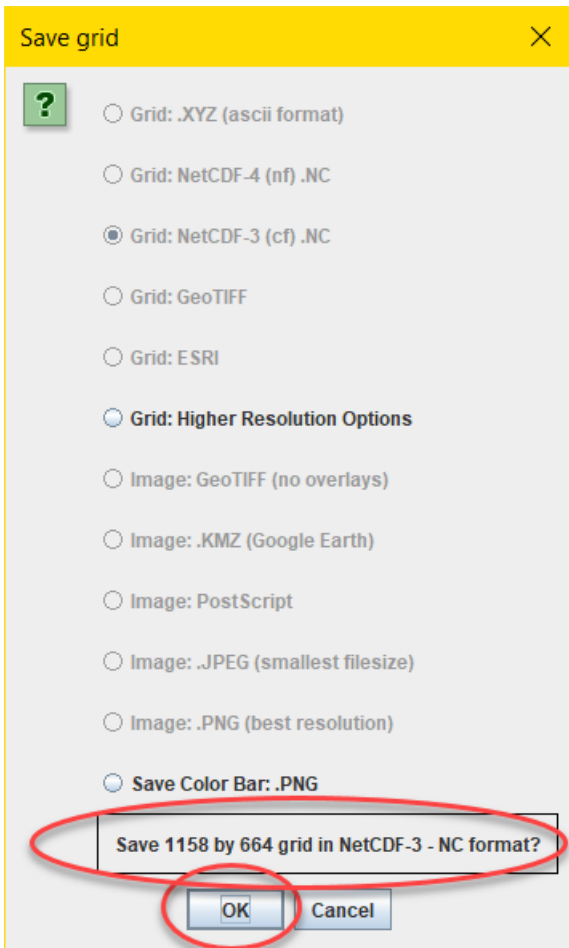




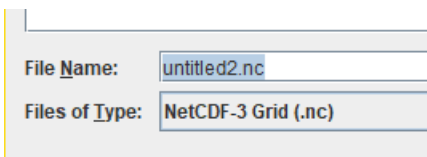
6) In the Save pop-up window, choose Grid: NetCDF-3 (cf) .NC”.



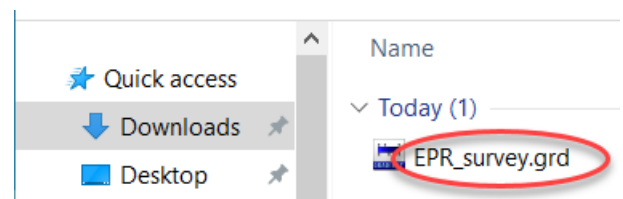
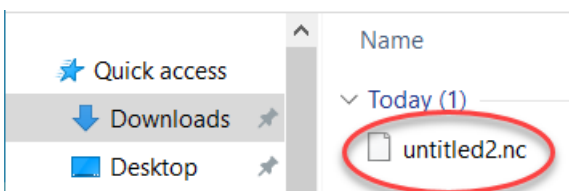
7) Click OK. A new pop-window is displayed – the Save Grid confirmation window. The file format and number of grid cells are displayed at the bottom. Click OK to confirm.



8) In the next Save window that pops up, note that the default gives “nc” as the file name extension. Click the Save button to save the file to the local computer. We shall rename the file in the next step.



9) Find the downloaded file on the local computer. Manually change the file name extension by replacing “nc” with “grd”. The file name may also be changed. In this example, the file name and extension are changed from “untitled2.nc” to “EPR\_survey.grd”.



10) The downloaded file is in netCDF format with a “.grd” file name extension and may now be imported in NavG3 as a bathymetry underlay.