

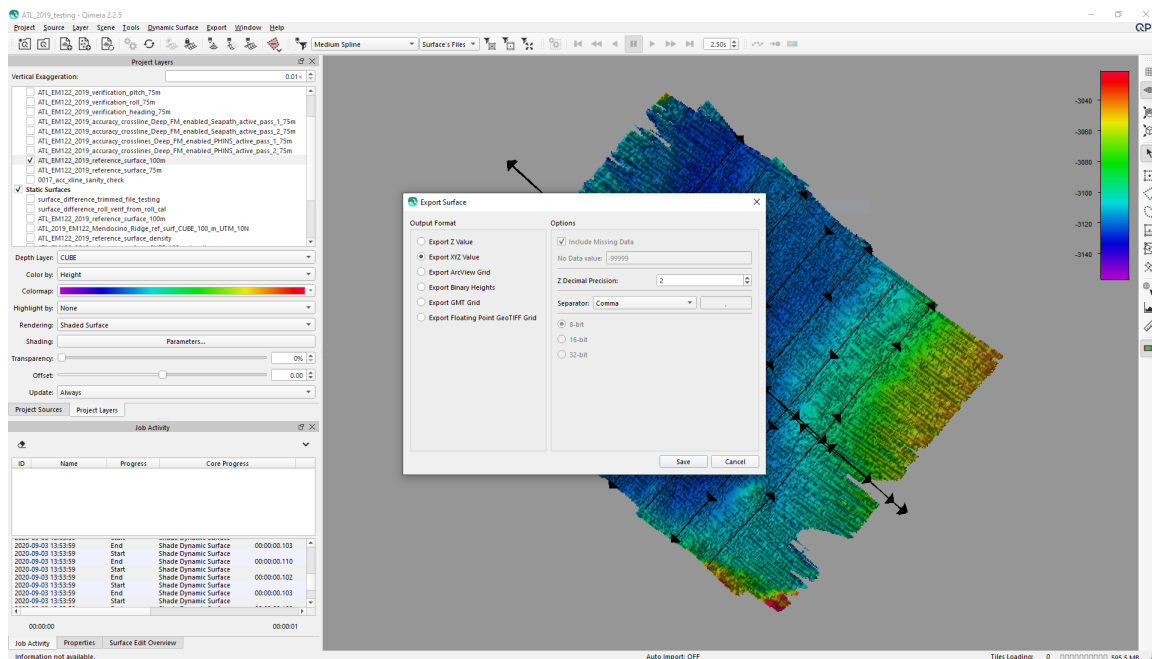
# Qimera reference surface export to Swath Accuracy Plotter (v0.0.5)

*Note: screenshots below were made with Qimera v2.2.5; however, it was discovered that a bug is causing the .xyz depth export to include zeros along surface borders in an earlier project (created in v2.0.3 and 'upgraded' when opened for the first time in v2.2.5). Earlier versions of Qimera and new surfaces created in v2.2.5 do not include this edge artifact in .xyz exports; the density surface exports from both versions do not include zeros. It appears to affect only surfaces from older projects that are upgraded to open in newer versions. The cleaned data can be regridded in v2.2.5 and exported without an issue. If this is not possible, the swath coverage plotter can be used to filter reference surface depths outside the expected range to handle the edge issue, if it arises, though color scale options are not yet in place to show the reduced depth range.*

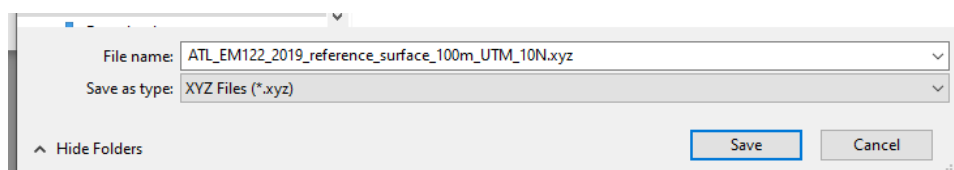
## Reference Surface: Depth

Generate a Dynamic Surface of bathymetry to use as a reference surface (cleaned, tides applied, etc.).

**Select Dynamic Surface → Export → Dynamic Surface → Export to Surface**



Save the exported depth file as .xyz with the Qimera project UTM zone noted in file name. Simple .xyz files do not have any projection information, so the plotter will attempt to read/assign a zone from the filename.



At present, reference surface import is limited to comma-delimited XYZ data in UTM projection with easting, northing, depth in meters (positive up). No assumption is made for the vertical datum (i.e., ensure the surface uses a desired vertical reference applicable for the crosslines and % water depth statistics, such as MSL).

```
1 251250.000,4494950.000,-3063.46
2 251250.000,4495050.000,-3058.07
3 251250.000,4495150.000,-3052.77
```

## Reference Surface: Density

Take a snapshot of the Dynamic Surface and specify the density data associated with the exported depth layer (e.g., sounding density in the CUBE depth layer, left); this will generate a new Static Surface

**Select Static Surface → Export → Static Surface → Export to Surface → Attached Scalar**

The image shows two side-by-side dialog boxes from a software application.

The left dialog, titled "Snapshot as Static Surface", has a "Surface Filename" field containing "density\_100m". Under "Depth Layer", the "CUBE" option is selected. Under "Color by", the "Sounding Density" option is selected. "OK" and "Cancel" buttons are at the bottom.

The right dialog, titled "Export Surface", has "Attached Scalar" selected under "Select Surface to Export". Under "Output Format", "Export XYZ Value" is selected. Under "Options", "Include Missing Data" is checked, "No Data value" is "-99999", "Z Decimal Precision" is "2", and "Separator" is "Comma". The bit depth options (8-bit, 16-bit, 32-bit) are unselected. "Save" and "Cancel" buttons are at the bottom.

Save file as .xyd (or rename by removing the .xyz extension after export) with Qimera project UTM zone noted in file name. This is for clarity only, as the plotter assumes the .xyd density file is in same zone detected/selected for the .xyz depth file.

A "Save As" dialog box is shown. The "File name:" field contains "ATL\_EM122\_2019\_ref\_surf\_CUBE\_100m\_UTM\_10N\_density.xyd". The "Save as type:" dropdown is set to "XYZ Files (\*.xyz)". "Save" and "Cancel" buttons are at the bottom right. A "Hide Folders" checkbox is at the bottom left.

## Load reference files

In the swath accuracy plotter, load the reference depth .xyz file and (optional) sounding density .xyd file exported from Qimera. If no density file is loaded, then sounding density is simply ignored as a parameter for filtering the reference surface. Note that one reference depth surface and at least one crossline file must be loaded to enable the 'Calc. Accuracy' button. The reference surface UTM zone will be parsed from the .xyz filename (if it is included) and can be manually selected if not found (or incorrect).

