Argo_Edit_GUI

A Matlab package package for examining and editing QC flags of Argo Float Data
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Files:

argo_edit_gui.m: Primary file
argo_edit_gui.fig: Accompanying support file (created by Matlab Guide)
rd_flt_gdac.m: Reads in netcdf format
wrt_flt_gdac.m: Writes out netcdf format
add_plot.m , add_scale.m: misc. required for graphics

gui_frontend.m: Example of front end program
fetch_from_gdac.m: copy file from local GDAC mirror to working directory
add_therm_lag.m: adjusts conductivity for thermal mass

Also required: matlab Seawater package (for thermal lag calculation)
            http://www.cmar.csiro.au/datacentre/ext_docs/seawater.htm
            m_map toolbox (http://www.eos.ubc.ca/~rich/map.html)

Edit HISTORY_INSTITUTION in wrt_flt_gdac.m to appropriate name.

Usage:

The matlab function argo_edit_gui is called with two arguments: an input path and an output path (these can be the same if you like).   Currently, I can only this interface to work by also passing a null value as the first argument. So an example of a call would be

        argo_edit_gui([],input_path_name,output_path_name);

The program will read all the profiles in the input_path_name directory, and upon saving, will output the altered profiles to a directory output_path_name.

GUI Window:

The GUI window displays four plots:

Primary Plot: Vertical profile of either Temperature or Salinity. Primary variably is dark blue line. Closest neighboring profile is magenta. The green line shows opposite

variable (e.g. temperature if main profile is salinity). Clicking on the profile selects points.

Secondary Plot: Can choose display from pull down menu (Trajectory, T vs S, QC fields). Blue and Magenta lines correspond to profile in primary plot

Waterfall Plot: Profiles of T or S for entire record Blue and Magenta lines correspond to profile in primary plot. Clicking in this window selects profiles.

QC Plot: Indicates current QC value (green=1, yellow=2,3, red=4, magenta=9). If changes are made, a red-dot above the profile indicates which profiles have been altered.

Buttons:

Display T or S: Selects variable for Primary Plot.

Toggle Zoom: Turns Zoom on/off in Pirmary Plot

Navigation buttons: Moves selected point up/down in profile, pages forward/backward to adjacent profiles.

Flagging buttons:

Pull Down Menu to select "Flag Single Variable", "Flag T & S" or "Flag P,T,S"

Pull Down Menu to select new flag value: 1,2,3,4,9

Buttons to apply flag value to single 'Point' or all "Above" or all 'Below'

Argo Edit GUI Window

Float Info

Display T or S

Toggle Zoom

Select Secondary Plot Type

Navigation Buttons

Profile Info

Flagging Buttons