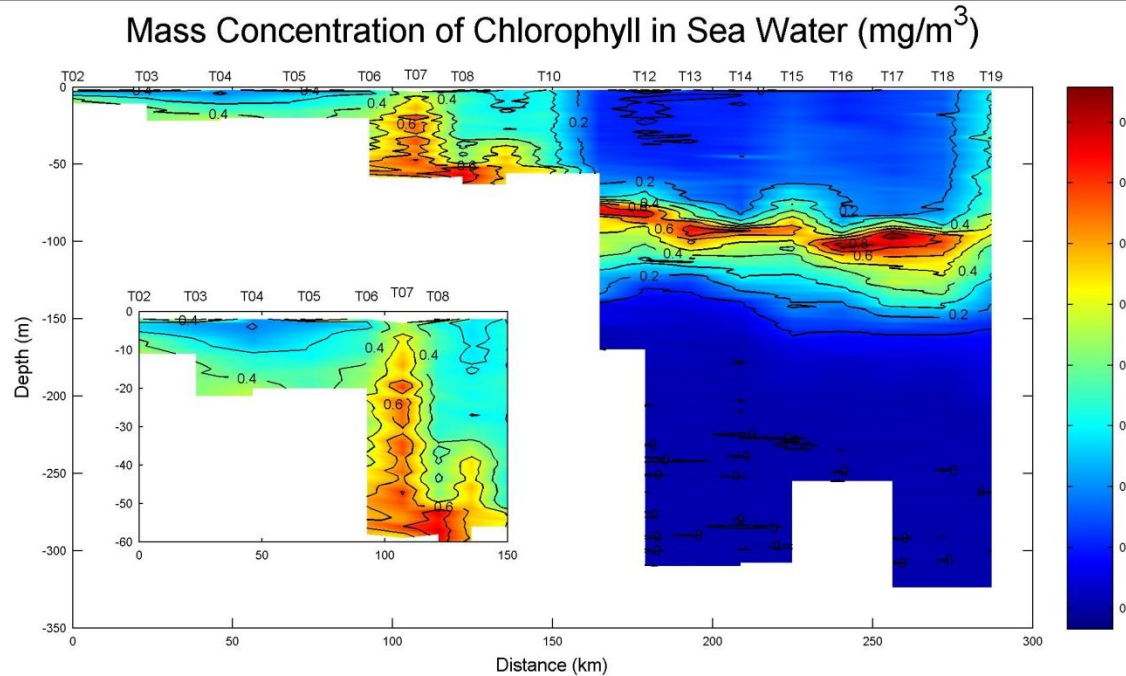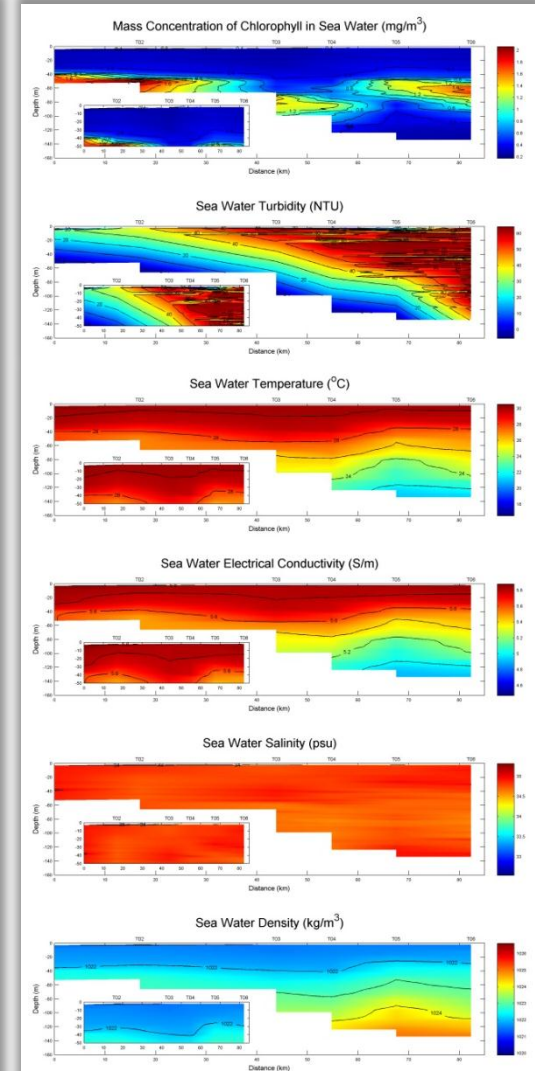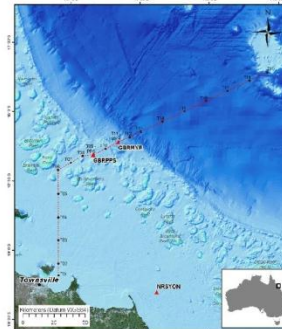# CTD Transect plot routine

Mass Concentration of Chlorophyll in Sea Water (mg/m³)

IMOS CTD Transect Magnetic Island to Flinders Reef June 2010
Deployment code: GBRTransect-North-1006
Trip: 005104
Date start transect: 03-Jun-2010
Date end transect: 12-Jun-2010
Instrument: SEABIRD CTD - SBE19PLUS V2 SEACAT
Serial Number: 6180
Stations sampled: T02 T03 T04 T05 T06 T07 T08 T09 T10
T10 T11 T12 T13 T14 T15 T16 T17 T18 T19

Cristian Munoz Mas
Australian Institute of Marine Science
Townsville, 15th December 2013

CTD Transect plot routine

Objective:
Provide a quick start guide instruction and information related with the internal mapping of the routine.

Run the routine:
1. Open Matlab.
2. Set path on the principal folder and subfolders contained in CTD_Transect_v01.
3. Run the script *CTD_transect_netCDF.m.*
4. Select the netCDF files belonging to one of the trips. Avoid repeating stations (e.g. The script cannot run two files that contain T09 on the file name).
5. A new prompt appears asking to select which region belongs to the files (North, South, PIL,KIM,ITF).
6. Select the region and press OK.
7. A new folder containing the plots will be created in the directory where the netCDF files are stored.
8. Attached there's a folder containing examples to run.

Pending to solve:
When the CTD transect is not complete, e.g., there are some files missing, the plot is not sensitive to the lack of stations, and the figures appears unorganized. The routine needs to be improved in this issue. Folder called nominal positions contains function that tries to solve it (needs to be finished).

CTD Transect_v01

CTD_transect_netCDF.m

plot

Plot_transect_CTD.m

Plot_vars.m

Summary_plot.m

Summary_plot_physic_vars.m

Summary_plot_water_quality_vars.m

settings

Pcolor_setting_CTD_transect.m

Plot_axes_label.m

Plot_axes_limits.m

Plot_info_CTD_transect.m

Plot_info_data_not_available_CTD_transect.m

Plot_title.m

Section2_plot_position.m

Stations_CTD.m

map

Plot_map.m

CTD_ITF.png

CTD_KIM.png

CTD_PIL.png

CTD_North.png

CTD_South.png

attributes

Load_attributes_CTD.m

variables

Load_vars_CTD.m

coord2dist.m

padcat

padcat.m

License.txt

nominal positions
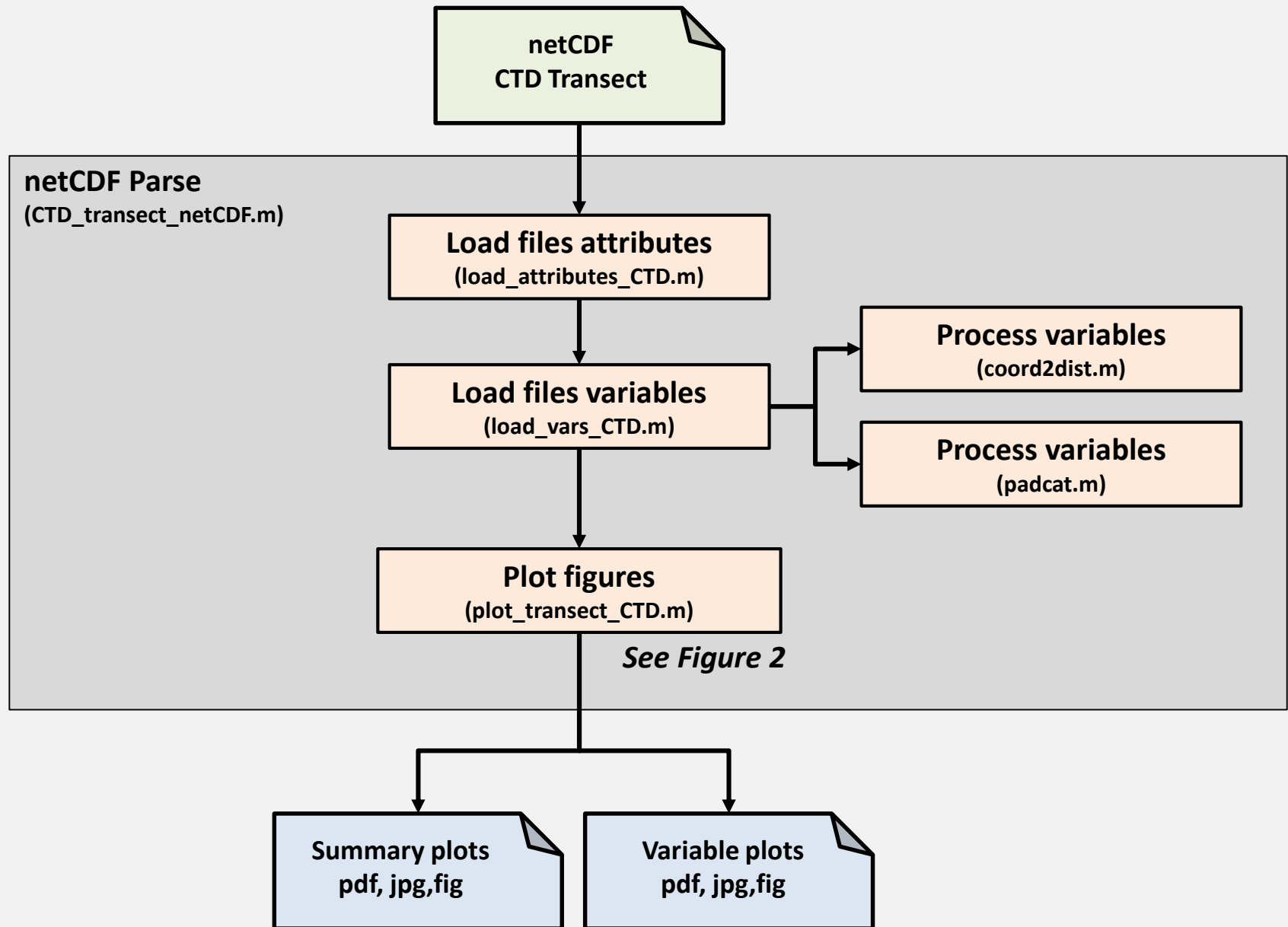
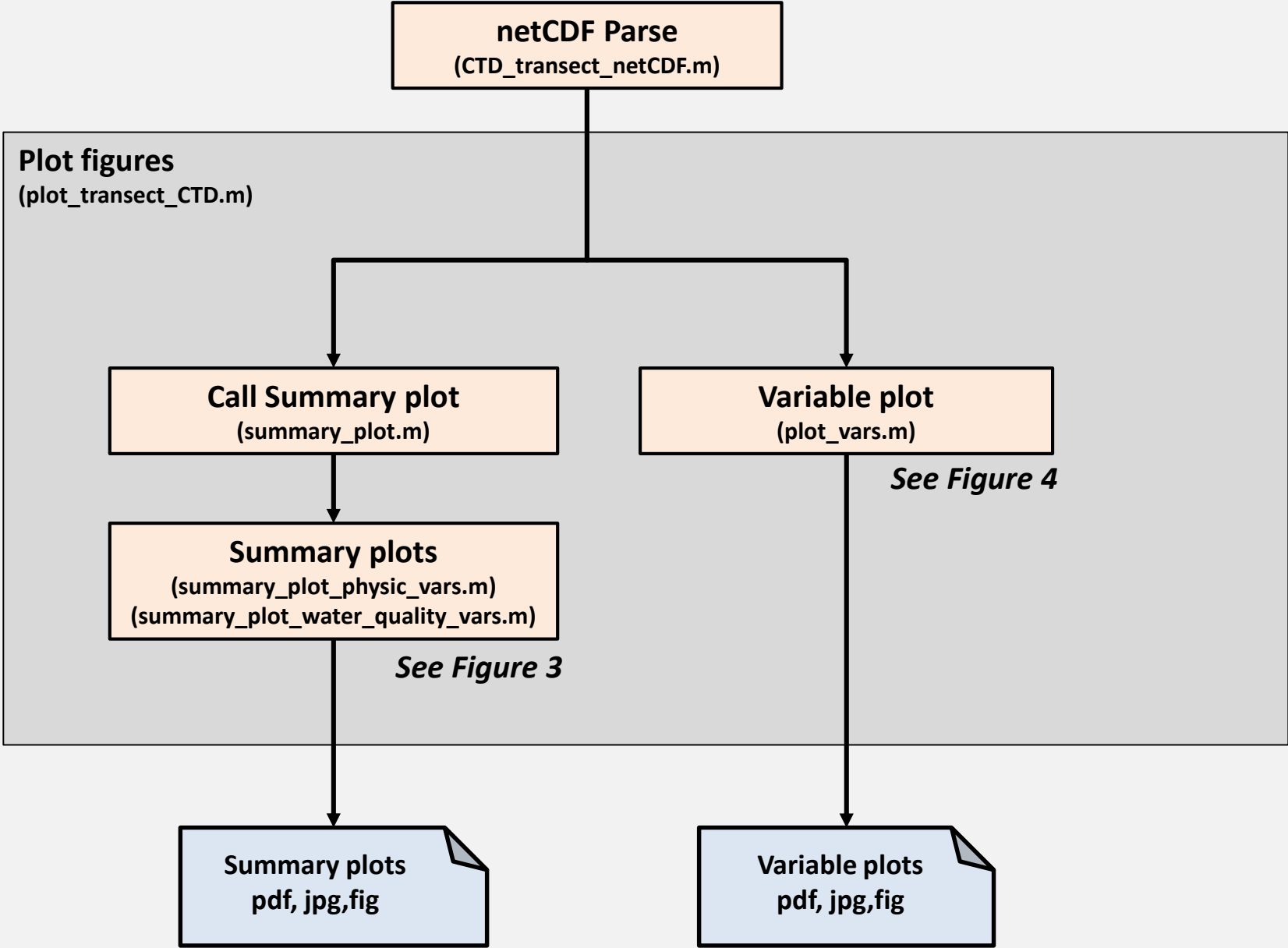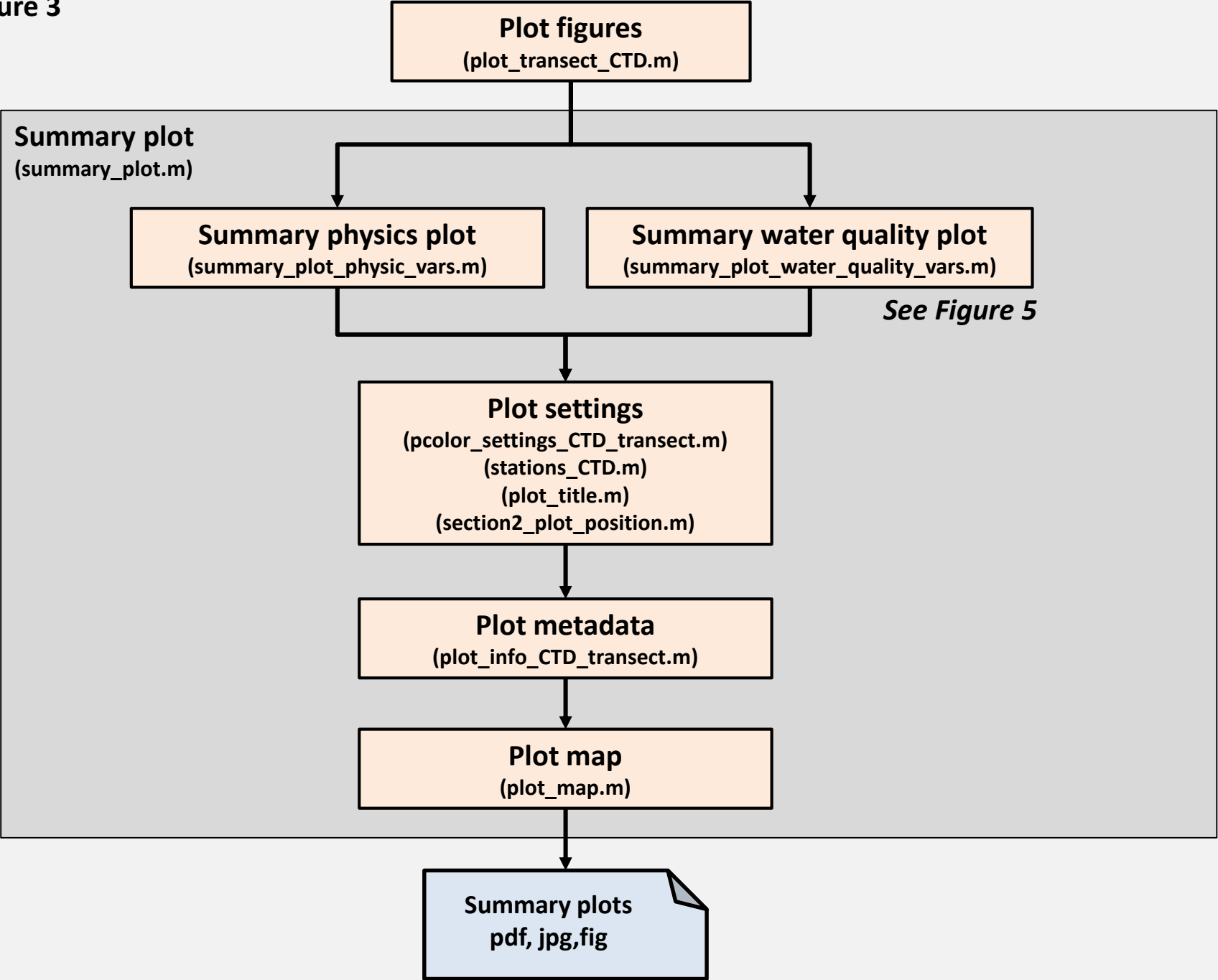Load_CTD_NominalPositions.m

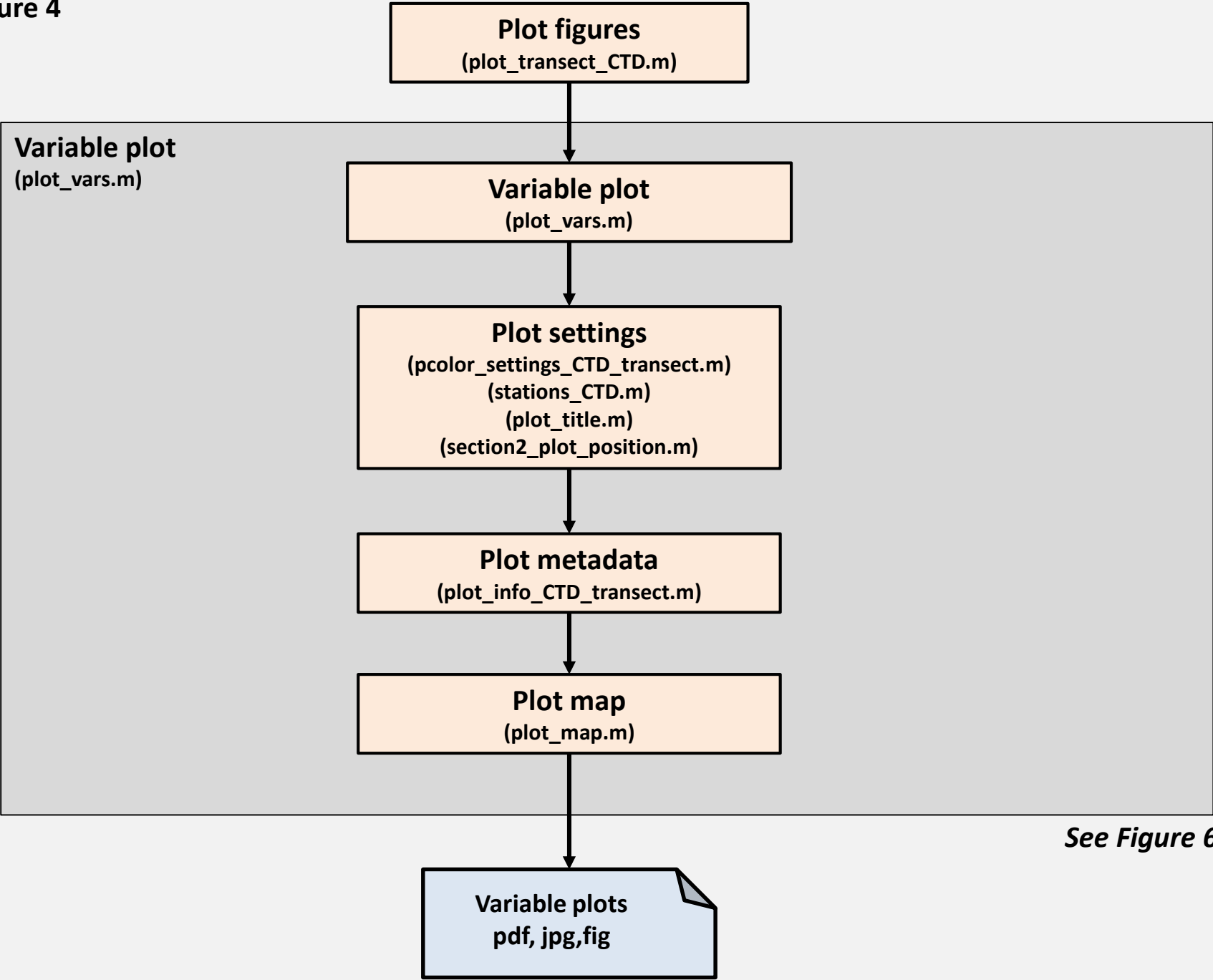CTDSouthNominal.xlsx

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

Input variables contained in each function	file	CTD	att	Index	Variables	vars_ref	Vars_plot	distancee	dum	vars	Plot_path	s	Summary_plot_physics	summary_plot_water_quality_section	Plot_type	Variable_to_plot	vartoplot	varname
load_attributes_CTD	✗																	
load_vars_CTD	✗			✗	✗													
coord2dist									✗	✗								
Plot_transect_CTD		✗	✗		✗	✗	✗											
Summary_plot		✗	✗		✗	✗	✗					✗						
Summary_plot_physics			✗		✗	✗	✗					✗						
Summary_plot_water_quality			✗		✗	✗	✗					✗						
plot_vars			✗		✗	✗	✗				✗	✗				✗		
pcolor_settings_CTD_transect						✗						✗					✗	
stations_CTD			✗			✗						✗				✗		
plot_title																		✗
section2_plot_position												✗			✗	✗		
plot_info_data_not_available_CTD_transect												✗						
plot_info_CTD_transect			✗															
plot_map												✗						
plot_axes_limits												✗				✗		
plot_axes_labels																✗		
padcat						✗	✗											