Instructions for Read_SOCATv2.m

This is the routine to get the SOCAT v2.0 data into matlab. The data files are the "SOCATv2" global and regional zip files, which can be downloaded from www.socat.info. It can also read the individual cruise files from Pangaea (http://doi.pangaea.de).
Several files can be selected, all with the same extension.
It reads the file until the column headers are found.
Determines # of columns from # of headers.
Creates GUI to ask user which columns to import (see figure below)
If Lat or Lon are selected for import, it creates another GUI to ask user which geographical region to import. If cruise flags are present and selected for import, it creates a GUI to select which flags to import. Likewise with data flags (see figure below)
Data is stored in variables named after column headers
Anything before column headers is stored in 'StartText' variable
For questions, contact:
Denis Pierrot (Denis.Pierrot@noaa.gov)
or Peter Landschutzer (p.landschutzer@uea.ac.uk)

% If Lat or Lon are imported, it creates another GUI to ask %
% the user which geographical region to import %
% If cruise flags are present and imported, %
% it creates a GUI to select which flags to import. %
% Likewise with data flags. %
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% Data is stored in variables %
% named after (sometimes modified) column headers %

% Anything before column headers is stored in 'StartText' variable %
% For questions, contact: %
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Instructions:

Data text file downloaded from the SOCAT website should be in same directory as the .m file

User Input: Make sure the following variables are set properly

filen = file name to read
This is the name of the data file, including the extension (txt) but not the path.

readlines = number of lines read per loop
Some computers might overload if this number is too big. Lower the

number if that's the case

delim = text delimiter
Set it to '\t' if the data file is tab delimited or to ',' if it is comma delimited

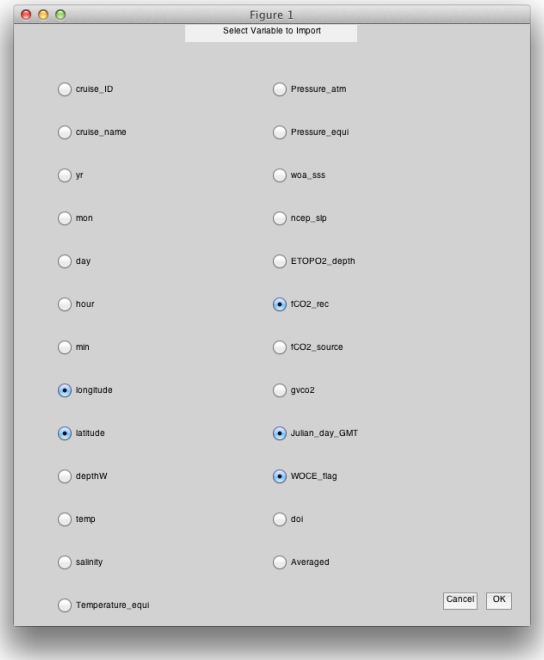
mots = a few column headers to identify the last line of text before data.
The program will look for these words to determine that it has reached the header line just before the data

dflt = set of column numbers initially selected to be imported when interface is created.
The radio buttons for these columns will appear selected when the interface appears.
They can be deselected at will on the interface.

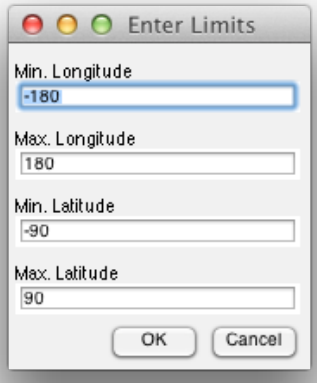
tcol = set of column numbers where data is text so that the program can import them properly.

①Start the program

②Select the variables you want to import individually on the interface…click OK.
[clicking CANCEL will stop the program]

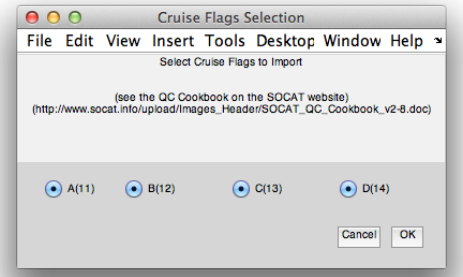


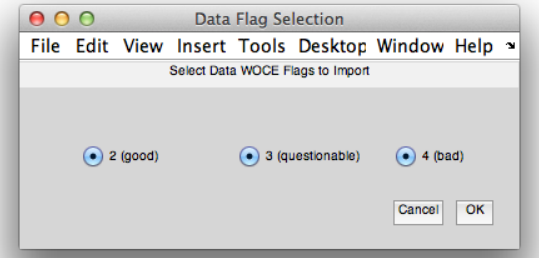
③Enter the geographical limits of the data you want to import …click OK.
[clicking CANCEL will stop the program]



The names displayed are the column headers
The resulting variables in Matlab will have the same names.

④ If applicable, select the cruise and/or data flags to be imported.





⑤ A progress bar will appear. When it disappears, the data will be loaded in Matlab.