SOCIB Balearic Islands Coastal Observing and Forecasting System

Data Processing
Raw ADCP Data Vessel

SOCIB-Data Center Facility

Document type:	SOP
Date:	2016-09-28
Ref. num.	SOP_RVF_VMADCP-winadcp-software-execution

Description:	Raw RV SOCIB ADCP data pre-processing
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DOCUMENT VERIFICATION LIST

Date:	Checked by (name)	SOCIB division	Ref.
2016-09-28	C. Troupin	SOS	

DOCUMENT DISTRIBUTION LIST

Date:	Distribution to:
2016-09-28	@datacenter
2016-09-28	@vessel

CHANGE RECORD

ver	Date	Description	Author	Checked by
1.0.0	2016-09-28	First version document	C. Munoz	C. Troupin
2.0.0	2019-04-15	Add relevant settings for final results export.	C. Munoz	J. Allen

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1. INTRODUCTION:

The aim of this document is to describe a standardized procedure to conduct the data pre-processing from the SOCIB R/V ADCP profiles using WinADCP software.

This procedure is applicable to the following SOCIB instruments:

- SCB-RDi001. sn 1878

2. RELATED DOCUMENTS

- Processing configuration
- SOP_RVF_VMADCP_data-processing-process-configuration

3. REQUIRED FEATURES

- Desktop or laptop.
- Internet connection.
- Vessel home access.
- Windows Operating System.
- Teledyne WinADCP software.

4. PROCEDURE DEVELOPMENT

4.1. SOFTWARE INSTALLATION

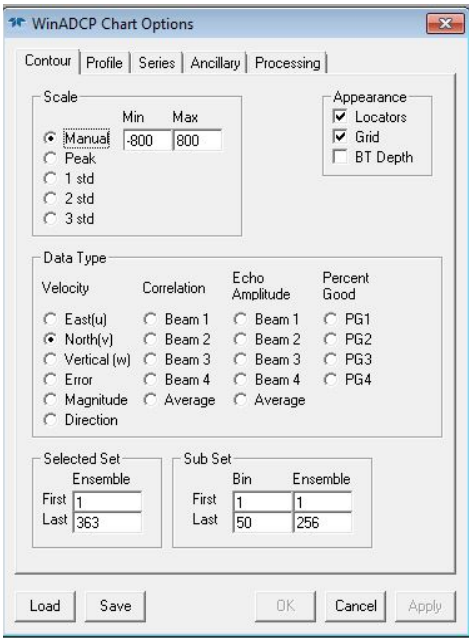
- Open RDI Teledyne website and navigate through support > software/firmware section.
  You can use this link: http://www.rdinstruments.com/support/software-firmware

- Log in using your RDI account that you must have previously created.
- Download the last version from WinADCP for windows.

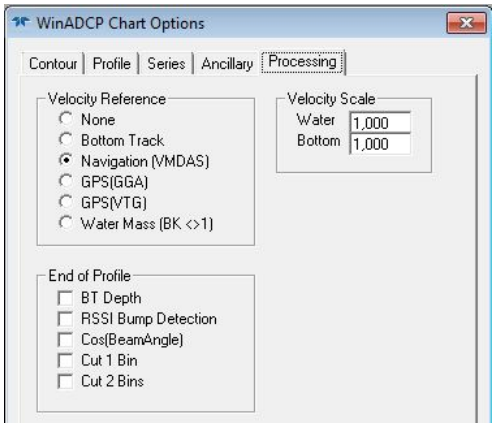
- Install software following the instructions provided by the wizard.

4.2. DATA CONVERSION

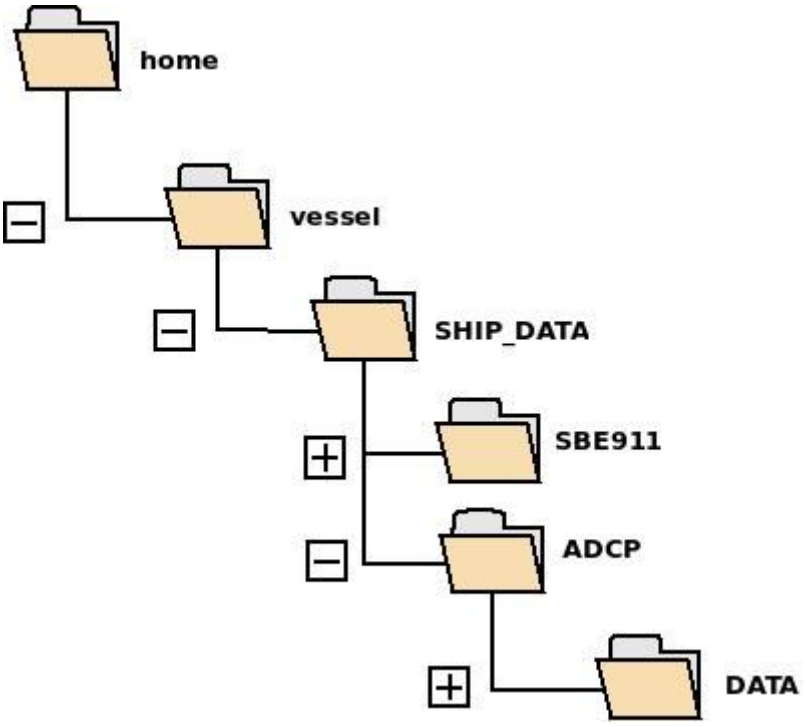
- Open WinADCP software.
- Set WinADCP Chart Options as follows:
    - menu Options > Chart Options > Contour:



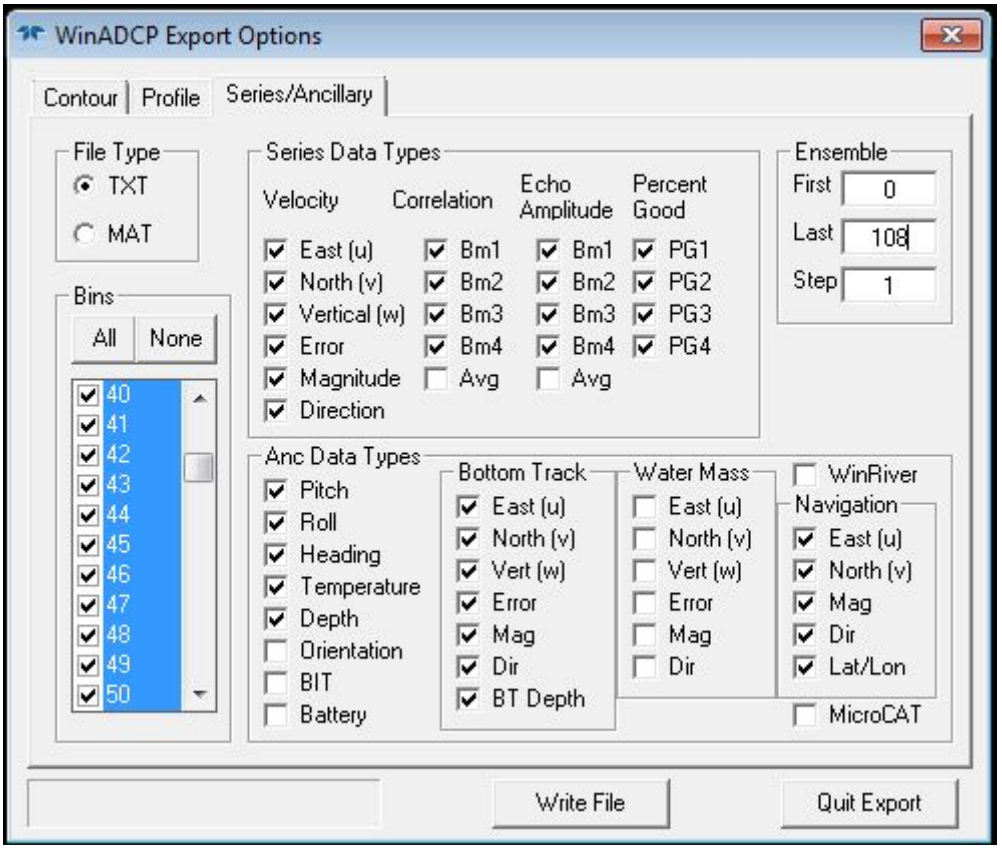
    - menu Options > Chart Options > Processing:



- Open the first STA file from your cruise directory within the DATA folder through the menu file > open.



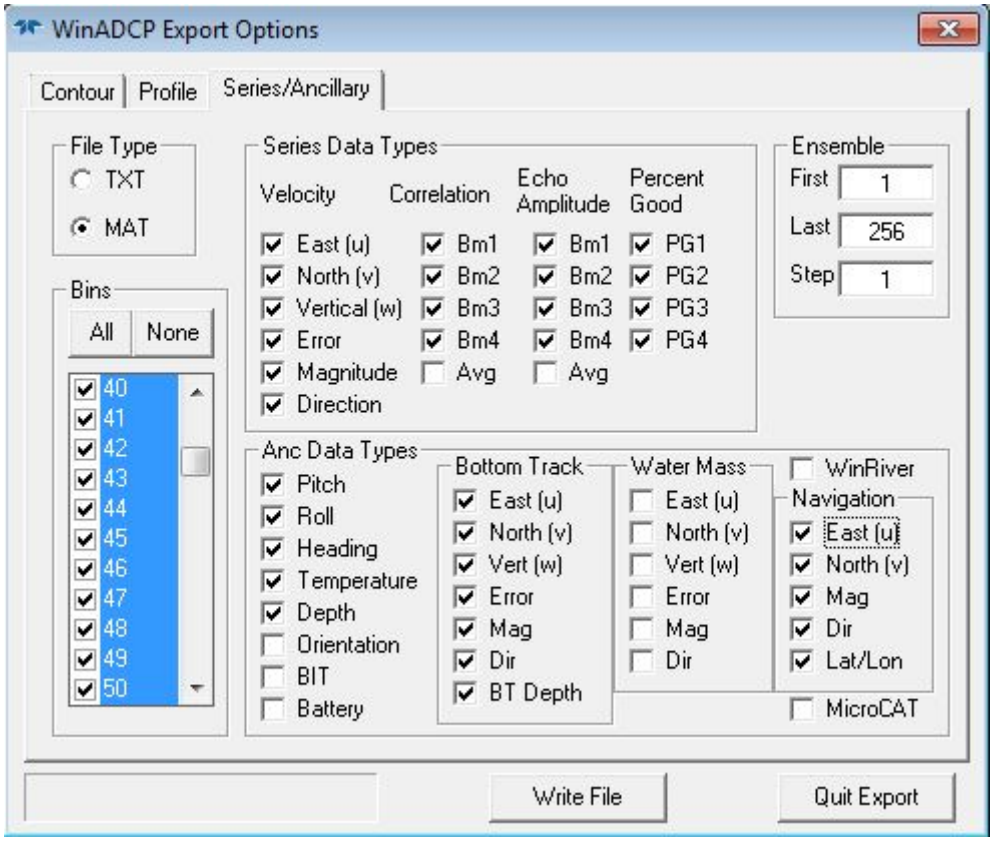
- Export the file to .txt through the menu export. Set the Export options as in the following figure:



NOTE: Remember to to select All bins and set the Last Ensemble according to the number of ensembles provided by the dataset.

- Click Write File and store the output file within a new folder created in the rawArchive directory specified in Data Storage section.

- Export the file to .mat by changing the File Type from TXT to MAT as in the following figure:

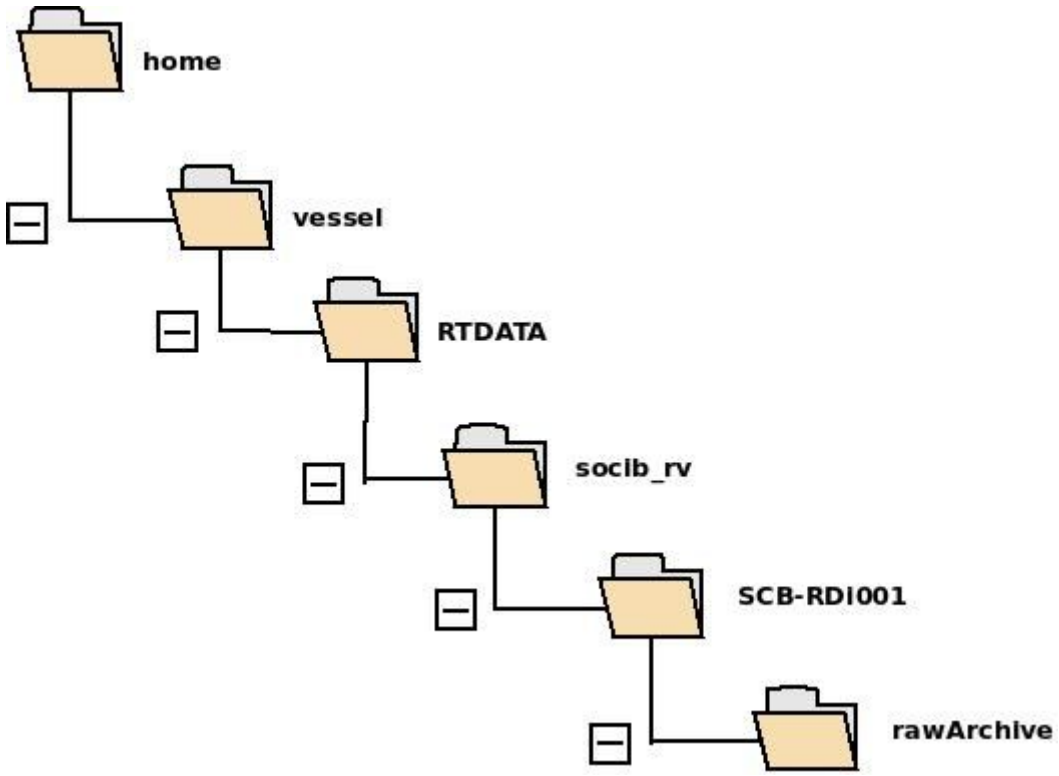


NOTE: Remember to select All bins and set the Last Ensemble according to the number of ensembles provided by the dataset.

- Repeat the same process for all the datasets contained in the cruise directory.

4.3. DATA STORAGE

- All the txt and mat files will be stored in a new folder (named converted) created within the rawArchive directory specified in the following route:



- The nomenclature must follow the following example:
  SOCIB_ENL_CANALES_JUL2016_SCB-RDi001

- Inside the directory data will be stored in raw and converted sub-directories: