

# Processing application environment, Data Processing ADCP Data Vessel

*SOCIB-Data Center Facility*

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## 1. INTRODUCTION:

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

This procedure is applicable to the following SOCIB instruments:

- SCB-RDi001. sn 1878

## 2. RELATED DOCUMENTS

- [PUM-DCF\\_instrumentation-database-processing-configuration](#)
- [SOP\\_RVF\\_VMADCP\\_winadcp-software-execution](#)
- [SOP\\_RVF\\_VMADCP\\_data-processing-process-configuration](#)

## 3. REQUIRED FEATURES

- Desktop or laptop.
- Internet connection.
- Vessel *home* access.
- Instrumentation database access.
- pgAdmin software.

## 4. PROCEDURE DEVELOPMENT

### 4.1. INSTRUMENTATION DATABASE SETTINGS

- In Process Platform check the processes to match the instrument belonging to the deployment that needs to be processed.

**Note:** See [processing configuration](#) document to create a new process and [RV\\_ADCP\\_SOP-DatProc-06-1](#) procedure that refers to the current RV\_ADCP process configuration.

Name	Platform type	*Photo available
Profilor_Drifter_ARVORA001	Drifter > Profiler drifter	
Profilor_Drifter_ARVORC001	Drifter > Profiler drifter	
Profilor_Drifter_ARVORI001	Drifter > Profiler drifter	
Ramon_Margalef_RV	Research Vessel	
SOCIB_RV	Research Vessel	

*Initial date	*End date	*Execution order	*Process	Instrument
		-2	CTD_SBE90_sld	SCB-SBE9001
2013-02-01 10:00:00		1	RV_Position	SCB-POS001
		2	CTD_SBE90	SCB-SBE9002
2013-02-01 11:00:00		2	CTD_SBE90	SCB-SBE9001
		3	RV_Thermoal	SCB-TSL001
		4	RV_Metoo	SCB-MET009
2013-01-01 08:00:00		5	RV_ADCP	SCB-RD001

- In Platforms filter the platform needed.
- Check that Platform > Instruments > Installed Instruments match with the instrument enabled in the deployments. Otherwise switch them for the available instruments

Name	Platform type	*Photo available
Profilor_Drifter_ARVORA001	Drifter > Profiler drifter	
Profilor_Drifter_ARVORC001	Drifter > Profiler drifter	
Profilor_Drifter_ARVORI001	Drifter > Profiler drifter	
Ramon_Margalef_RV	Research Vessel	
SOCIB_RV	Research Vessel	

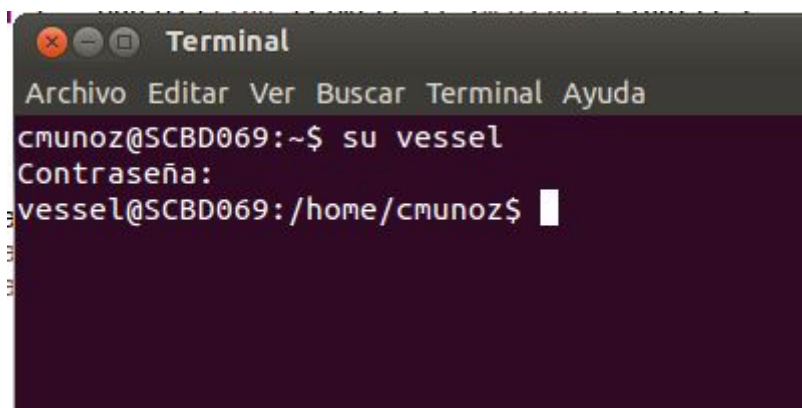
  

Name	UTC install date	UTC uninstall date	*Height	is fixed
SCB-MET009	2013-03-11 12:03:26		0	no
SCB-POS001	2013-02-06 12:41:24		0	no
SCB-RD001	2013-01-01 11:00:00			no
SCB-SBE9001	2013-02-01 11:00:00			no
SCB-SBE9002	2013-06-01 10:00:00			no
SCB-TSL001	2013-02-15 11:39:59		0	no

## 4.2. PREPARE DATA

- Open a new terminal and switch to *mooring* user using the following credentials:
  - switch user as “**vessel**” user.
  - Insert “**vessel password**”

**Note: Ask IT manager for the password.**



```

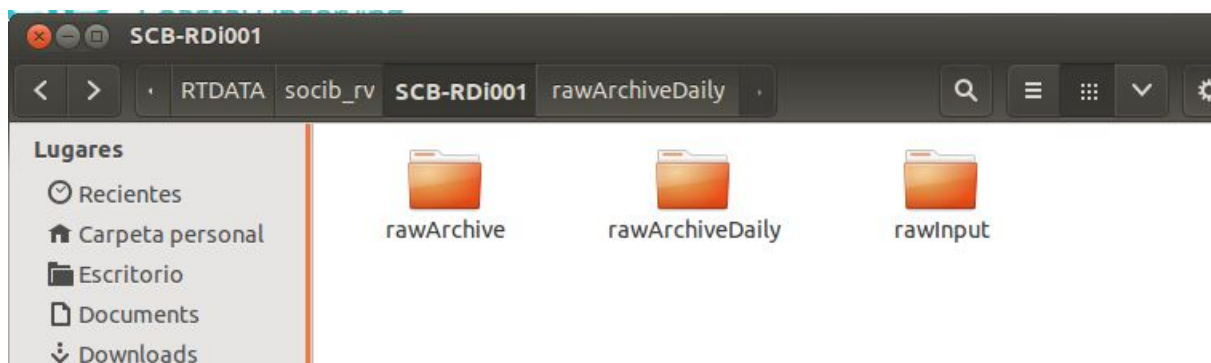
Terminal
Archivo  Editor  Ver  Buscar  Terminal  Ayuda
cmunoz@SCBD069:~$ su vessel
Contraseña:
vessel@SCBD069: /home/cmunoz$
  
```

- Copy the txt files from the cruise you need to process into the rawInput directory through the following command:

```
cp -iR SourceDirectoryPath/CruiseDirectory/*.txt DestinationDirectoryPath/rawInput
```

Source Directory path: **/home/vessel/SHIP\_DATA/ADCP/DATA**

Destination Directory path: **/home/vessel/RTDATA/socib\_rv/SCB-RDi001**

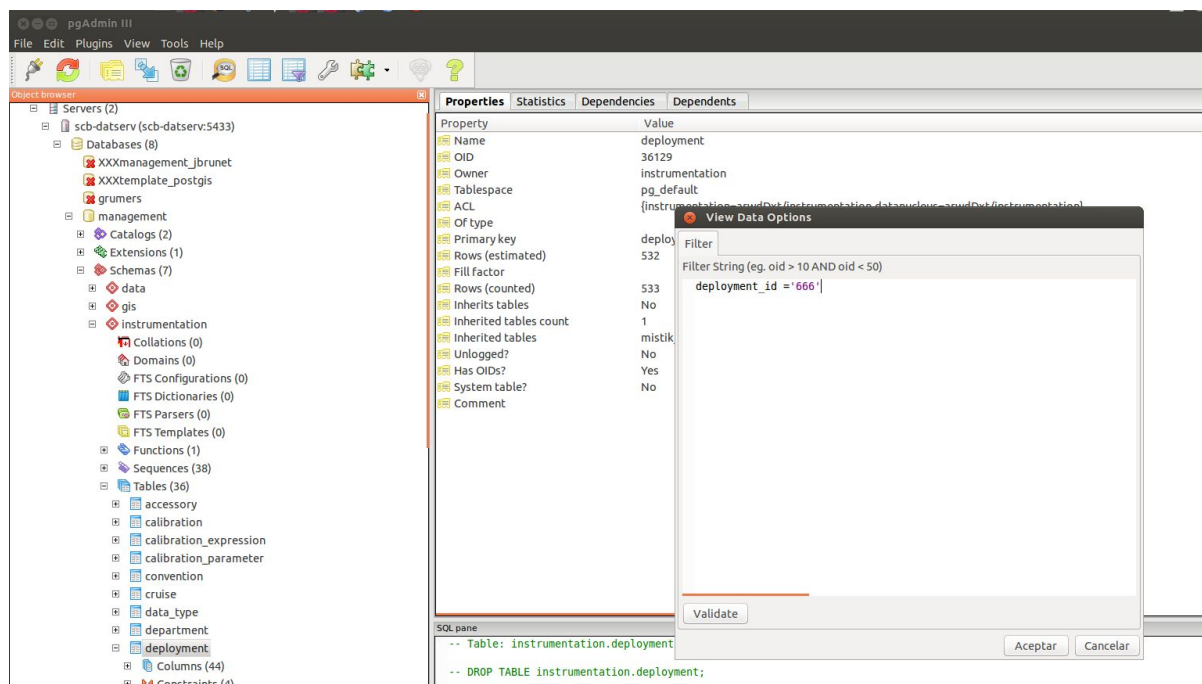


- Open pgAdmin and configure a new connection to scb-datserv:
  - **Name:** scb-datserv
  - **Host Name:** scb-datserv
  - **Port:** 5433
  - **Username:** datanucleus
  - **Password:** “datserv password”

**Note:** Ask IT manager for the password.

The screenshot shows the 'New Server Registration' dialog box in pgAdmin. The 'Properties' tab is active. The fields are filled as follows: Name is 'scb-datserv', Host is 'scb-datserv', Port is '5433', Service is empty, Maintenance DB is 'postgres', Username is 'datanucleus', Password is masked with dots, 'Store password' is checked, Colour is empty, and Group is 'Servers'. At the bottom, there are three buttons: 'Ayuda', 'Aceptar', and 'Cancelar'.

- Connect to scb-datserv.
- Select Management database.
- Select Instrumentation Schemas.
- Select deployment table.
- Filter the deployment\_id = 'deployment\_id'



- Set deployment\_finished to FALSE.

Edit Data - scb-datserv (scb-datserv:5433) - management - instrumentation.deployment

No limit

	deployer text	deployer text	deployer text	deployer text	deployer text	deployment_finished boolean	deployer text	deployer text	deployer text	deployer text	deployer bigint	date
1			Balearic	0014	SOCIB	FALSE		data.cent			2	
*												



### 4.3. CHECK OUTPUT NETCDF RESULTS

- Check thredds server to find the NetCDF file created.

Use this example [link to thredds](#) to check the appearance.

thredds.socib.es/thredds/dodsC/research\_vessel/current\_profiler/socib\_rv-scb\_rdi001/L1/2

Tested on Netscape 4.61 and Internet Explorer 5.00.

**Action:**

**Data URL:**

**Global Attributes:**

```
title: Data from instrument SCB-RDi001 on platform SOCIB RV
institution: SOCIB (Sistema de Observaci3n y predici3n Costero de
las Islas Baleares)
netcdf version: 3.0
Conventions: CF-1.6
```

**Variables:**

☐ **trajectory:** String

```
trajectory = 
cf role: trajectory_id
DODS:
  strlen: 22
  dimName: name_strlen
```

☐ **time:** Array of 64 bit Reals [time = 0..797]

```
time:
standard name: time
units: seconds since 1970-01-01 00:00:00
axis: T
calendar: gregorian
```

☐ **DEPTH\_ADCP4:** Array of 64 bit Reals [depth\_adcp4 = 0..49]

```
depth_adcp4:
standard name: depth
units: m
positive: down
axis: Z
reference datum: geographical coordinates, WGS84 projection
```

☐ **LON:** Array of 64 bit Reals [time = 0..797]

```
time:
standard name: longitude
long name: Platform Last Longitude coordinate
units: degree east
valid min: -180.0
valid max: 180.0
```

- Get back to pgAdmin and Set deployment\_finished to TRUE.

Edit Data - scb-datsew (scb-datsew:5433) - management - instrumentation.deployment

	deployer text	deployer text	deployer text	deployer text	deployer text	deployment_finished boolean	deployer text	deployer text	deployer text	deployer text	depl bigint
1	p://www			Balearic	10014	SOCIB	TRUE		data.centi		2
*											

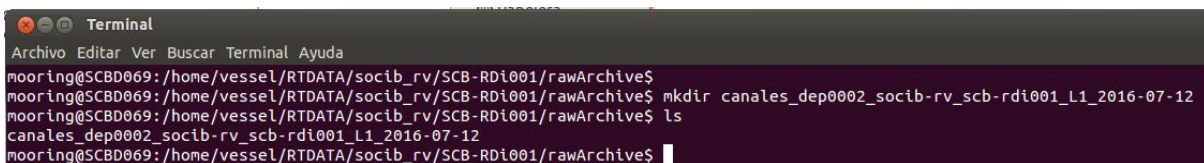
## 4.4. STORE RAW FILES

- All the txt files will be automatically stored in rawArchiveDaily directory specified in the following route:

***/home/vessel/RTDATA/socib\_rv/SCB-RDi001***

- In case it doesn't exist, create a new *cruise* folder within the rawArchive directory using the following command in the terminal:

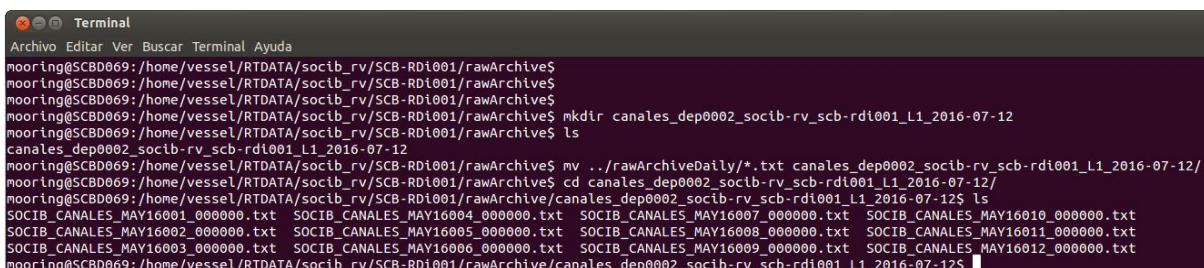
***mkdir cruiseName\_deploymentCode\_socib-rv\_scb-rdi001\_L1\_yyyy-mm-dd***



```
Terminal
Archivo Editor Ver Buscar Terminal Ayuda
mooring@SCBD069:/home/vessel/RTDATA/socib_rv/SCB-RDi001/rawArchive$
mooring@SCBD069:/home/vessel/RTDATA/socib_rv/SCB-RDi001/rawArchive$ mkdir canales_dep0002_socib-rv_scb-rdi001_L1_2016-07-12
mooring@SCBD069:/home/vessel/RTDATA/socib_rv/SCB-RDi001/rawArchive$ ls
canales_dep0002_socib-rv_scb-rdi001_L1_2016-07-12
mooring@SCBD069:/home/vessel/RTDATA/socib_rv/SCB-RDi001/rawArchive$
```

- Move all the .txt files from rawArchiveDaily to the new folder created in rawArchive by using the following command:

***mv rawArchiveDailyPath/\*.txt rawArchivePath/cruiseDirectory***



```
Terminal
Archivo Editor Ver Buscar Terminal Ayuda
mooring@SCBD069:/home/vessel/RTDATA/socib_rv/SCB-RDi001/rawArchive$
mooring@SCBD069:/home/vessel/RTDATA/socib_rv/SCB-RDi001/rawArchive$
mooring@SCBD069:/home/vessel/RTDATA/socib_rv/SCB-RDi001/rawArchive$ mkdir canales_dep0002_socib-rv_scb-rdi001_L1_2016-07-12
mooring@SCBD069:/home/vessel/RTDATA/socib_rv/SCB-RDi001/rawArchive$ ls
canales_dep0002_socib-rv_scb-rdi001_L1_2016-07-12
mooring@SCBD069:/home/vessel/RTDATA/socib_rv/SCB-RDi001/rawArchive$ mv ../rawArchiveDaily/*.txt canales_dep0002_socib-rv_scb-rdi001_L1_2016-07-12/
mooring@SCBD069:/home/vessel/RTDATA/socib_rv/SCB-RDi001/rawArchive$ cd canales_dep0002_socib-rv_scb-rdi001_L1_2016-07-12/
mooring@SCBD069:/home/vessel/RTDATA/socib_rv/SCB-RDi001/rawArchive/canales_dep0002_socib-rv_scb-rdi001_L1_2016-07-12$ ls
SOCIB_CANALES_MAY16001_000000.txt SOCIB_CANALES_MAY16004_000000.txt SOCIB_CANALES_MAY16007_000000.txt SOCIB_CANALES_MAY16010_000000.txt
SOCIB_CANALES_MAY16002_000000.txt SOCIB_CANALES_MAY16005_000000.txt SOCIB_CANALES_MAY16008_000000.txt SOCIB_CANALES_MAY16011_000000.txt
SOCIB_CANALES_MAY16003_000000.txt SOCIB_CANALES_MAY16006_000000.txt SOCIB_CANALES_MAY16009_000000.txt SOCIB_CANALES_MAY16012_000000.txt
mooring@SCBD069:/home/vessel/RTDATA/socib_rv/SCB-RDi001/rawArchive/canales_dep0002_socib-rv_scb-rdi001_L1_2016-07-12$
```