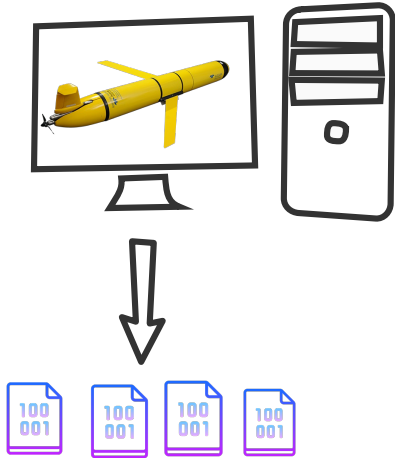


SOCIB Glider Toolbox - Processing Workflow

Configuration

- path to glider data files
- path to external libraries
- data output locations
- figure output options
- setup database or script file for deployment metadata



DB

Deployment Metadata:
SQL Database or Script File

Gather Glider Data

- Gather RAW Glider Files
- Convert from Binary to Text Format (if applicable)
- Extract Deployment Info from MetaData Source
- Combine Files and Metadata into CF Compliant
 - NetCDF L0 Product
 - Engineering NetCDF L0 Product

Preprocess Data

- Select Defined Variables and Sensors (Time, Location, Oxygen, etc)
- Unit Conversions (NMEA to Decimal Degrees, Bars to Decibars, etc)

Process Data

- Interpolate Missing Values (Time, Position, Depth, Attitude, Heading, Waypoints)
- Identify Transect Boundaries
- Calculate Distance Over Ground
- Filter Pressure Sequence
- Derive Depth from Pressure
- Identify Start and End of Profiles
- Derive Flow Speed through CTD
- Sensor Lag Estimation & Correction (optional)
- Thermal Lag Estimation & Correction
- Derive Salinity from Pressure, Conductivity & Temperature
- Derive Density from Pressure, Salinity & Temperature

Generate L1 Figures

- In-situ Temperature, Salinity, Conductivity, etc
- T-S Diagram, Trajectory and Current Map

Grid Processed Data

- Intepolate Glider Data Onto User Configured Grid
- Store As Vertical Depth Profiles

Generate L2 Figures

- Depth Profiles for Oxygen, Chlorophyll, Turbidity, etc

Gather Glider Data

Preprocess Data

Process Data

Postprocess Data

Generate L1 Figures

Grid Processed Data

Generate L2 Figures



L0 NetCDF



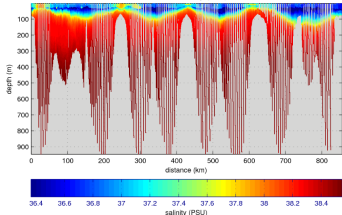
Engineering L0 NetCDF



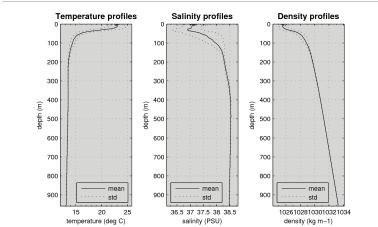
L1 NetCDF



L1 NetCDF-EGO



L2 NetCDF



ConfigPathsLocal
ConfigPathsPublic
ConfigExternalLinraries
ConfigDBAccess
GetDeploymentInfoDB
LoadSlocumData
GenerateOutputNetCDF

configDataPreprocessingSlocum
PreprocessGliderData

ConfigDataProcessingSlocumG1
ProcessGliderData

PostprocessGliderData

ConfigFigures
GenerateGliderFigures

ConfigDataGridding
GridGliderData

ConfigFigures
GenerateGliderFigures



Balearic Islands
Coastal Observing
and Forecasting
System