Data Ingestion

At Sea

Instruments are sync to local time
Before each drop deployment, the instrument be must off and then turned on.

Seabird SBE 19 V2

RBR Gen 1 XR-620 sensors

RBR Gen >=2 Concerto

Tablet Device Magic Form

For each survey record:
Crew, Boat, Instrument Serial Number, Weather

For each drop:
Record Site, Secchi Depth, Start Position, Start Time, Bottom Position, Bottom Time, End Position, End Time, Line Out, Target Depth, Bottom Depth, Miscast

On/Off switch

Activated by Thresholding
Pressure > 12.5dBar
Look every 1min
Hysteresis 45s

Twist Activated

Data Retrieval

Connect to the instrument and download data with Seaterm V2

Connect to the instrument and download data with Ruskin

Convert to Legacy R-TEXT Format with Ruskin

Review Metadata in Lab Form

*.HEX

*.HEX or *.RSK

*.TXT (Legacy R-TEXT Engineering Format)

Submit to Hakai Data Portal

Upload Form

Data Submission

AWS S3 (*hex, *.rsk, *.txt)

Form Metadata Storage

Convert Seabird Raw Format to Engineering (*.hex to datcnv_*.cnv)

*.HEX

Seabird Instrument Calibration *.xmlcon

Seabird Instrument Output Variables datcnv*.psa

SBEDataProcessingTool.exe Data Conversion
Calibration and PSA are matched by Serial number

datcnv_*.CNV

Cast Detection Tool
Read RBR data and detect each seperate drops.

Hakai Python Script

Unprocessed CTD Profile Database

Automated suggested annotation

User Confirmed Annotation