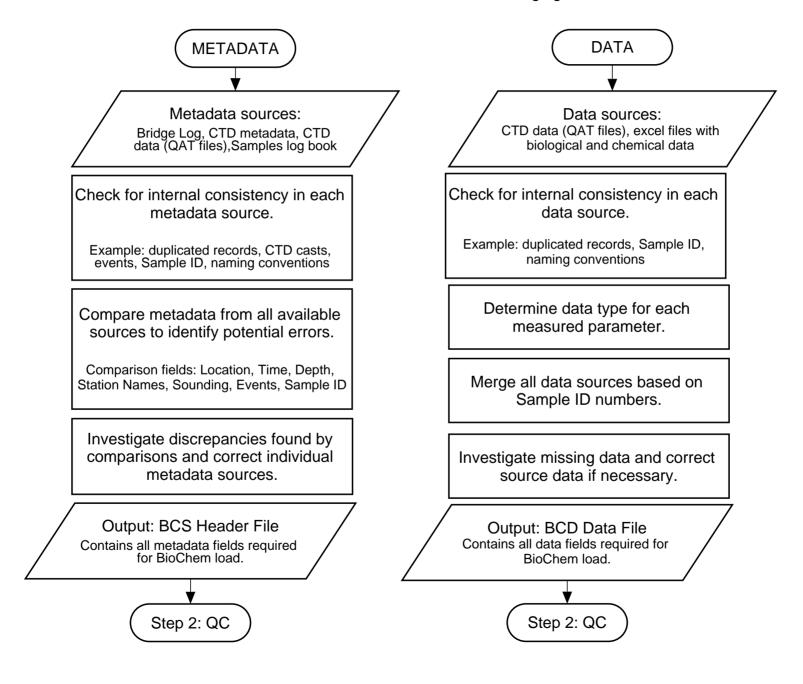
STEP 1: Cross check and merging



Quality Control Flow Chart for Discrete Niskin Bottle Sample Data: All BioChem Data

STEP 2: Quality Control Procedure (under construction)

METADATA BCS Header File

Metadata Tests Time, Location, Depth

Platform Identification, Impossible Date, Impossible location, Position on Land, Impossible ship speed, Station location wrt standard location

Visual Inspection

Cruise track and station plots

Assign Flags to Time and Position

Quality controled metadata with time and location flags
 Plots

DATA BCD Data File

Data Tests CHL, Nit, Pho, Sil, OXY, T, S

Globaly and regionally imposssible values, Profile envelope, Constant profile, Freezing point, Replicate comparison, Bottle vs CTD data, Excessive gradent or inversion Oxygen % saturation in surface water

Comparison with Climatology

T, S: Monthly Climatology (Petrie) CHL, Nit, Pho, Sil: Monthly climatology for Maritimes (Lazin at al 2014)

Visual Inspection

Profile plots for all parameters, Bottle vs CTD scatter plots, Bottle data patterns in time and space

Assign flags for each parameter.

 Quality controlled data with flags for each parameter
 Library of plots

Quality Control Flags

- 0 no quality control
- 1 value seems correct
- 2 value appears inconsistent
- 3 value seems doubtful
- 4 value seems erroneous
- 5 value was modified
- 6 reserved for future use
- 7 further investigation required
- 8 QC performed by data producer
- 9 value missing

Reference: Quality Control of Bottle Data at IML