

Preprocessing of the CTD sections
(prepctd.m)



Diabox_v2.0

Step 1: Format the data



Step 2 : Define geometry
Build model matrix A



Step 3: Build a priori solution
initial reference velocity
initial residual (b)



Step 4: Build inverse model
Initial diapycnal fluxes
Assemble A and b



Step 5: Main routine:
Add additional terms to A and b (air sea fluxes, Ekman)
Add section specific constraints
Assign model and unknowns uncertainties (weights)
Solve (Gauss-Markov).

← Prepare the geometry file

Polygons around the rim of the boxes
makeboxcoord.m → Define T, S and area of layer interfaces within each box
(makemprop.m)



← A priori air-sea fluxes
(makeairsea.m)

← Extra constraints