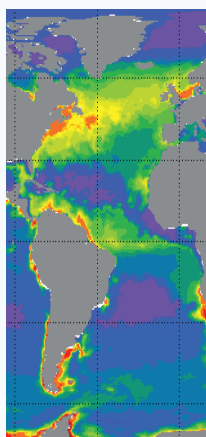


SYSTEM FOR GLOBAL OCEAN BIOGEOCHEMICAL ANALYSIS AND FORECAST AT 1/4°



Geographical coverage : Global Ocean (180°W-180°E; 77°S-90°N)
 Physics or Biogeochemistry : Biogeochemistry
 Grid and Resolutions : ORCA025 [1/4°; 50 levels]
 Grid size : 1442 x1021 x50 (partial steps)
 Code et Version : PISCES-NEMO2.3 for biogeochemistry coupled to PSY3V3R3 in version NEMO3.1 for Physics
 Data assimilation : No
 Sea Ice Modeling : Cf PSY3V3R3
 Tides : Cf PSY3V3R3
 Bathymetry : Cf PSY3V3R3
 Free run configuration name : Cf PSY3V3R3
 Time step : 1800s (tracers and biogeochemistry)
 Update : Weekly

Reference : BIOMER

Forcing and Data Assimilation

• Data assimilation :	No, but forcing with PSY3V3R3 which has data assimilation.
• Data assimilation scheme:	None
• Data assimilated :	None
• Atmospheric or Biogeochemical forcings :	Atmospheric forcings: Cf PSY3V3R3 Biogeochemical forcings: Iron (Fe) input through sediment and wind.
• Runoff :	For physics: Cf PSY3V3R3; DIC, DOC et POC inputs through rivers
• Open Boundary Conditions :	No

Initial Conditions and Relaxation

• Initial conditions :	Levitus WOA (2001) for NO ₃ , O ₂ , PO ₄ , Si; GLODAP for DIC and Alkalinity; Restart from a 3000 years long run for Iron (Fe) and DOC;
• Surface relaxation :	No
• Water column (3D) relaxation :	No
• Convection :	Cf PSY3V3R3

Parametrisation

• Surface physics parametrisation :	Cf PSY3V3R3
• Bottom friction :	Cf PSY3V3R3
• Lateral friction :	Cf PSY3V3R3
• Vertical mixing :	Cf PSY3V3R3 ; weekly average of log ₁₀ (k _z) is performed
• Advection :	Cf PSY3V3R3
• Tracer diffusion :	Cf PSY3V3R3
• Momentum diffusion :	Cf PSY3V3R3
• Horizontal diffusion coefficient for tracers and momentum :	Cf PSY3V3R3
• Vertical diffusion coefficient for tracers and momentum :	Cf PSY3V3R3