

List of standard variables

Jump to bottom

Jorn Bruggeman edited this page on Apr 12 · 4 revisions

Interior variables

Variable	Units	Corresponding name in CF conv
alkalinity_expressed_as_mole_equivalent	mmol m-3	sea_water_alkalinity_expressed_as_mole_equiva
attenuation_coefficient_of_photosynthetic_radiative_flux	m-1	
attenuation_coefficient_of_shortwave_flux	m-1	
cell_thickness	m	cell_thickness
density	kg m-3	sea_water_density
depth	m	depth
downwelling_photosynthetic_radiative_flux	W m-2	downwelling_photosynthetic_radiative_flux_in_s
downwelling_shortwave_flux	W m-2	downwelling_shortwave_flux_in_sea_water
fractional_saturation_of_oxygen	1	fractional_saturation_of_oxygen_in_sea_water
mass_concentration_of_suspended_matter	g m-3	mass_concentration_of_suspended_matter_in_s
mole_concentration_of_ammonium	mmol m-3	mole_concentration_of_ammonium_in_sea_wate
mole_concentration_of_carbonate_expressed_as_carbon	mmol m-3	mole_concentration_of_carbonate_expressed_as
mole_concentration_of_dissolved_inorganic_carbon	mmol m-3	mole_concentration_of_dissolved_inorganic_car
mole_concentration_of_dissolved_iron	umol m-3	mole_concentration_of_dissolved_iron_in_sea_w
mole_concentration_of_nitrate	mmol m-3	mole_concentration_of_nitrate_in_sea_water
mole_concentration_of_phosphate	mmol m-3	mole_concentration_of_phosphate_in_sea_wate
mole_concentration_of_silicate	mmol m-3	mole_concentration_of_silicate_in_sea_water
net_rate_of_absorption_of_shortwave_energy_in_layer	W m-2	net_rate_of_absorption_of_shortwave_energy_ir
ph_reported_on_total_scale	1	sea_water_ph_reported_on_total_scale
practical_salinity	1e-3	sea_water_practical_salinity
pressure	dbar	sea_water_pressure
secchi_depth	m	secchi_depth_of_sea_water
temperature	degree_Celsius	sea_water_temperature

Bottom variables

Variable	Units	Corresponding name in CF convention
bottom_depth	m	
bottom_depth_below_geoid	m	sea_floor_depth_below_geoid
bottom_roughness_length	m	
bottom_stress	Pa	

Surface variables

Variable	Units	Corresponding name in CF conve
cloud_area_fraction	1	cloud_area_fraction
ice_area_fraction	1	sea_ice_area_fraction
mole_fraction_of_carbon_dioxide_in_air	1e-6	mole_fraction_of_carbon_dioxide_in_air
surface_air_pressure	Pa	surface_air_pressure
surface_albedo	1	surface_albedo
surface_downwelling_photosynthetic_radiative_flux	W m-2	surface_downwelling_photosynthetic_radiative
surface_downwelling_photosynthetic_radiative_flux_in_air	W m-2	surface_downwelling_photosynthetic_radiative
surface_downwelling_shortwave_flux	W m-2	
surface_downwelling_shortwave_flux_in_air	W m-2	surface_downwelling_shortwave_flux_in_air
surface_drag_coefficient_in_air	1	surface_drag_coefficient_in_air
surface_specific_humidity	1	surface_specific_humidity
surface_temperature	degree_Celsius	sea_surface_temperature
wind_speed	m s-1	wind_speed

Horizontal variables

Variable	Units	Corresponding name in CF convention
latitude	degree_north	latitude
longitude	degree_east	longitude

Global variables

Variable	Units	Corresponding name in CF convention
number_of_days_since_start_of_the_year	d	

Universal variables

Variable	Units	Corresponding name in CF convention
total_carbon	mmol m-3	

Variable	Units	Corresponding name in CF convention
total_iron	umol m-3	
total_nitrogen	mmol m-3	
total_phosphorus	mmol m-3	
total_silicate	mmol m-3	

For questions about FABM's use or development, visit Discussions. If you would like to cite FABM, please refer to its main publication and/or URLs.

▶ Pages 30

Background

- 1. Introduction
- 2. Design considerations

User guide

- 1. Obtaining the source code
- 2. Building and installing
- 3. Setting up a simulation
- 4. Available biogeochemical models
- 5. Specific hosts
 - GOTM
 - NEMO
 - ROMS
 - HYCOM
 - FVCOM
 - MOM
 - SCHISM
 - GETM
 - BROM-transport
 - Python

Developer guide

- 1. Developing a new biogeochemical model
- 2. Using FABM from a physical model
- 3. List of standard variables

Updates

- FABM API 1.0
- FABM API 2.0

Tips and tricks

Support

How to cite

Licensing and copyright

Acknowledgements

Presentations

Build and test passing DOI 10.5281/zenodo.7737951

Clone this wiki locally

https://github.com/fabm-model/fabm.wiki.git

Q