

WHAT IS NEW / ALREADY INCLUDED IN THE CCSM4 OCEAN COMPONENT?

(since CCSM3)

- POP2 base code,
- Increased vertical resolution (60-levels) and changes in bottom topography,
- Modified anisotropic horizontal viscosity scheme,
- Near-surface eddy flux parameterization, (CPT)
- Vertically-varying isopycnal and thickness diffusivities, (CPT)
- Tidally driven mixing scheme,
- Flux limited advection scheme (Lax-Wendroff),
- Zenith angle dependent diurnal cycle of solar forcing,
- Passive tracer infrastructure and ecosystem codes are operational.

WHAT CAN BE INCLUDED IN THE CCSM4 OCEAN COMPONENT?

(between now and October 1, 2008)

- Sub-Mesoscale parameterization (Fox-Kemper), (CPT)
- Overflow parameterization (Large), (CPT)
- Horizontally-varying internal wave breaking, i.e., background, vertical diffusivity / viscosity (Jochum),
- Incremental remapping transport scheme (Ringler?),
- Any further infrastructure changes (Jones).