Preview

CCSM3.0 Simulation of the 100ma Cretaceous World

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CAUTION: preliminary results ahead
b30.140n Setup Complete: years 1-116

- CCSM3_0_1_beta24
- T31 Atmosphere
- 3x3 degree Ocean (timestep = 23)
- $\text{CO}_2$: 10 x Pre-Industrial (280e-5)
- Vegetation: Bareground
- Orbital parameters (~Permian)
- Aerosols - Present day
- Ocean Color - present day

CAUTION: preliminary results
Configuration Changes

- Dynamic Vegetation
- Aerosols:
  - Current: present day
  - Future:
    - Pre-Industrial
    - Pre-Industrial zonal average
- Ocean color:
  - Current: Present day
  - Future possibilities
    - zonal average
    - Estimate ocean color as a function of Temperature and Salinity.

What's Next?
Proposed Experiments

What’s Next?

1. 16x Pre-Industrial CO₂
2. 1x Pre-Industrial CO₂ (deep-time archive)
3. 4x (8x??) Pre-Industrial CO₂

http://www.cgd.ucar.edu/ccr/paleo/100maCret/100ma_cret.html
Pitfalls

• Procedural order in setting up grid
• Grid reference frame:
  - (0:360:2) vs (-180:180:2)
• CCSM3 Documentation essential

Generating CCSM3 input files for Paleo Simulations
(in prep 2007)
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