

Chemical Transport Modeling Framework(CTMF)

Summary of Technical
Discussion

Key Points from Discussion

- The discussion primarily revolved around technical discussion of the CTMF implementation and GMAO's AeroChem.
- GMAO described their activities with AeroChem
- SIVO described the corresponding development for the CTMF.
- GMAO:
 - Has core components from existing models like GEOS-5 including the TP-Core, Diffusion, etc.
 - Has developed an Aerochem component that includes:
 - Strat chem from Goddard CTM(Ann Douglas)
 - Aerosols from GOCART(Mian Chin)
 - GMI Chemistry is being integrated

Key Points from Discussion

- SIVO
 - Planning to integrate the TP-Core from the GMAO into the CTM Framework
 - Is integrating the GMI emissions
 - CTM design provides more flexible run time configurations
 - Provides significant testing mechanisms to support integration of new components
- There is a commitment to unify efforts between the GMAO and SIVO's CTM activities.
- The distinctions between the two approaches should be largely immaterial to the community.
 - Community primarily should focus on componentizing the model software.

Key Points from Discussion

- It is possible to maintain the model software and the ESMF component wrapper separately
 - Not necessary to install ESMF on all machines for all customers
- GEOS-Chem
 - Has a partially completed column chemistry component that could be wrapped as an ESMF component.
 - Expressed interest in collaborations with GMAO aerochem