Sensor-Web Operations Explorer (SOX)

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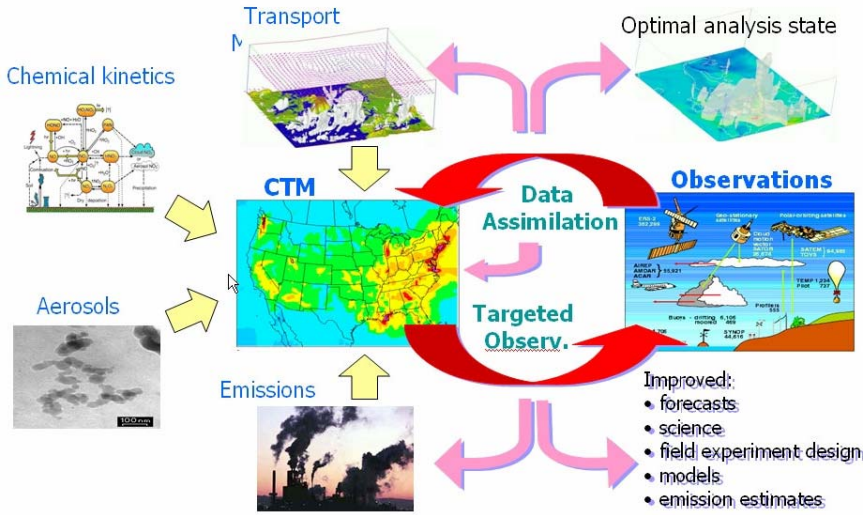
Objective

- Enable adaptive measurement strategy exploration on a sensor web for rapid air quality assessment.
- Provide a comprehensive sensor-web system simulation with multiple sensors and multiple platforms.
- Provide quantitative science return metric that can identify where and when specific measurements have the greatest impact.
- Provide collaborative campaign planning process among distributed users.



SOX Optimizes Observation Strategies for Air Quality Information Content

Approach

- Develop multi-disciplinary frameworks and link observation simulations, reference models, science retrieval and analysis algorithms, data assimilation software, forecasting code, and assessment code.
- Develop scalable system modules with asynchronous interface protocols and create a "system of systems" providing flexible system configuration and operation.

Co-I's/Partners

- Charles Miller / JPL
- Kevin Bowman / JPL
- Adrian Sandu / Virginia Polytechnic
- Richard Weidner / JPL (MSVN technology leverage)

Key Milestones

• SOX software Architecture Design	Dec. 06
• SOX Interface Definitions	Feb. 06
• V1 Multiple Instruments on Spacecraft	Sep. 07
• V2 Multiple Aircraft	Sep. 08
• V3 Multiple Sondes and In-situ Systems	Sep. 09

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