

# HDF IN CERES

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# CERES SUBSYSTEMS

- 12 Subsystems comprise CERES software of data processing and scientific algorithms
- CERES requirement to use HDF for all archival output products
- Subsystem origins
  - Integrated from existing science algorithms
  - Carried over from previous projects (ERBE)
  - Developed from scratch (Instrument subsystem)
- Output products from one subsystem become input for subsequent subsystem

# HDF IMPLEMENTATION

- HDF-EOS deemed not mature or ready for production level code (circa 1996 - 1997)
- Some subsystems unable to logically map data into swath, grid, or point structures in a satisfactory manner
- Some subsystems experience poor runtime performance with HDF-EOS
- No advantage over basic HDF in meeting CERES data sub-setting requirements
- HDF-EOS not always supported by commercial, off-the-shelf data viewing tools (IDL, IBM Data Explorer, etc.)

# LESSONS LEARNED

- Learn and understand HDF/HDF-EOS structures
- A logical data mapping to HDF/HDF-EOS structures is critical
  - Do not be constrained by previous or existing binary output product formats
  - Use single parameter SDSs
- Ideally, HDF/HDF-EOS implementation should be done in conjunction with subsystem development
  - Use of output product format converters is an alternative
- Data viewing tools expedited data verification (i.e., view\_hdf)