Clarifying and Implementing a Stricter DOD Definition Across Datastreams

C. Sivaraman, B. Ermold, M. Macduff
Pacific Northwest National Laboratory

Objective:
A DOD (data object design) definition has been developed to provide consistency in structure across ARM data streams and to document data history.

Issues with current DOD history:

The DOD History page:
   http://science.arm.gov/tool/dod/showdod.php
- Tracks both content and structure.
- Needs Custom Configuration

Inconsistencies across datastreams:

Field Name	long_name
atm_pres	average atmospheric pressure
atmos_pressure	Atmospheric pressure
pres	Atmospheric pressure
pres	Pressure
pres	Retrieved pressure profile

Database schema: prototype update for DSDB

Definition of DOD:

All dimension, attribute and variable types and names are considered part of a DOD. A change in any part of the DOD is considered a version change.

Outcomes:

ACRF enforces greater consistency in data
Downstream users benefit (DQ, VAPs, scientists)
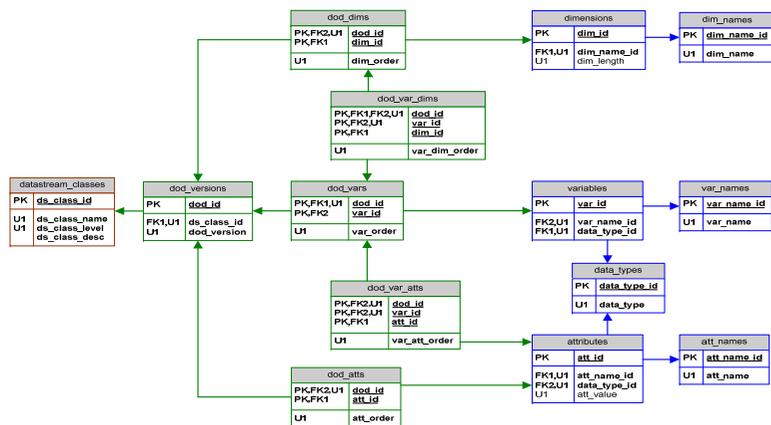Identify inconsistencies across datastreams

Datastream development is more efficient
BODS interface, updated libraries

Improved data analysis tools for ACRF and ARM
Visual Datastream history tool (below)