Climate and Forecast (CF) Conventions

ESGF Face-to-Face Meeting

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CF Conventions

- Provide the means for automated interpretation and sharing of climate data

- Mainly describe metadata and a standard vocabulary

- Examples:

  - "The units attribute is required for all variables that represent dimensional quantities"

  - Optional attribute "standard_name" must take a value from the official vocabulary; e.g. "air_pressure_at_sea_level"

CMIP-X specifications go further

- CMIP-5 requires:
  - one variable per file
  - Many required attributes for variables or axes – e.g. standard_name, bounds, calendar (for time)
  - Variable names are recommended or prescribed, and their precision is prescribed.
  - Many required global attributes, e.g. parent_experiment_id, creation_date
  - Et cetera!

CF on ESG

- Most data on ESG is CF-compliant

- Users expect CF-compliant data

- QC (quality control) checks may check or depend on CF compliance

CF Revisions this past year

- All are in version 1.7 public draft

- All are implementations of consensus decisions in the CF issue tracker

- All are minor changes involving:

  - cell methods, cell bounds,

  - attributes of auxiliary coordinate variables

  - Permit description of coordinate systems in CRS "well-known text" format

Trouble at cfconventions.org

- The biggest event in the CF Conventions was hardware failure and rebuilt web sites.

- The web server hardware failed a year ago.

- The Plone-based web site proved impossible to migrate to a new server.

- Matthew Harris built a new web site on github. Basics are there, more has to be done.

- We migrated the Trac issue tracker first to one machine, then to another.

Near-future Plans

- CF Conventions 1.7 will be released soon, with more minor changes.

- CF Conventions 1.8 will have a new chapter describing Gridspec, specifications of unstructured grids.

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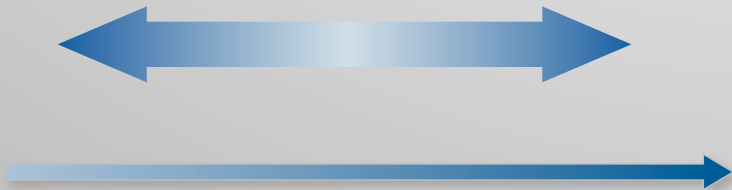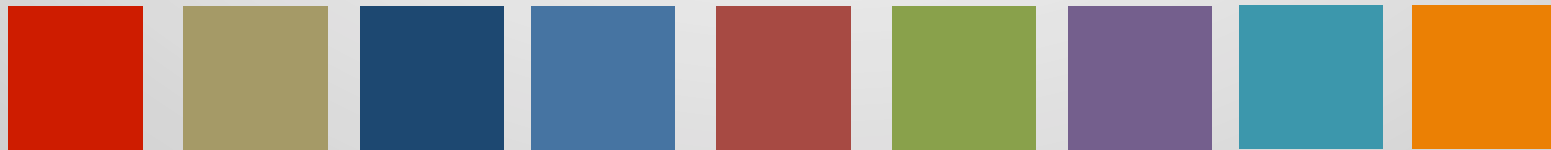 - Sub bullet
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