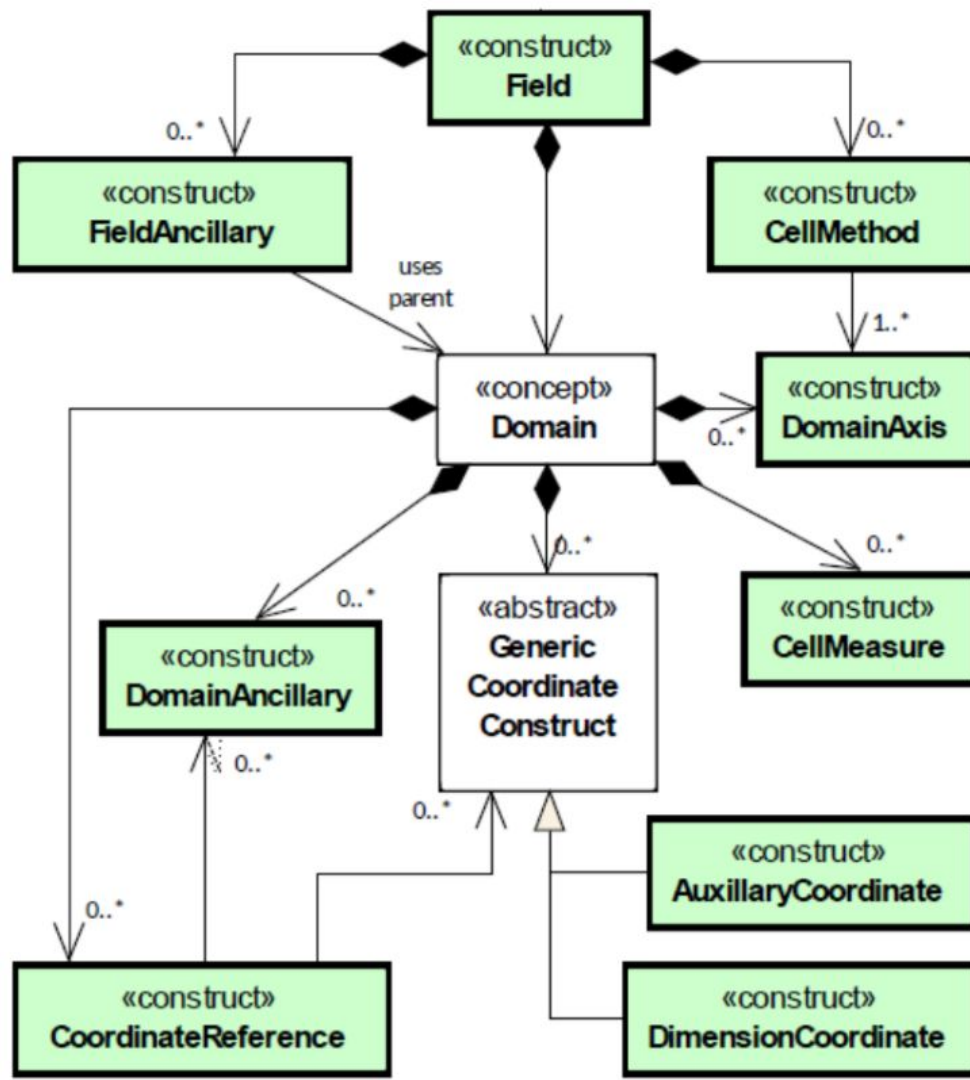# Data Model Breakout

(see Data Model Breakout - 2017-09-06)

The CF 1.6 Data Model

Exercise: Mapping the Geometry Proposal

- Geometry coordinates **fit within existing coordinate constructs** (green boxes)
- The fact that the geometry proposal uses contiguous ragged arrays for the coordinates is an **implementation detail and not a concern of the data model**
- Ancillary info, like "am I a polygon hole" are not explicitly accounted for, but could be by adding (to the definitive descriptive text) that "coordinate constructs contain properties to define how their bounds are to be interpreted"

- Conclusion: The data model already supports the proposal fairly well

Data Model Next Steps

- Get the paper published
- Put the data model in the CF conventions (and commit to keep current)
- Chris Little -- Longer term strategy is to separate data model into semantics of topology and container. In present implementation, the edges are blurred. See W3C data cube.
- Ontologize the data model (any volunteers?)

Geometry Proposal

- Having separate categories for polygons and multipolygons is flawed -- Chris Little
  - Could simplify types to line and polygon, which includes both single and multipart
  - Esri's implementation in geodatabase:
    - Internally look at polygons, polygons with holes, or multipart polygons differently.
    - Geodatabase polygons are flagged with type.
- Geometries are currently tied to data variables. May want to rethink that in future revisions.
- Esri implemented an early version of the proposal and released it in their software, with good performance.
- See you at 11:00ish