

Characterisation 2 data model: spectral cubes, visibility data

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Current Status

- Old INTERNAL draft upgraded to working draft status .
- Draft Utype list available soon. Same for xml schema
- Read and comment

Characterisation 2 and other data models

- Characterisation 2 is fully compatible with ObsCore characterisation class (actually the char utypes in Obscore are a subset of char2)
- Characterisation 2 to be compatible with spectrum DM characterisation class
- Characterisation 2 should be compatible with Image Datamodel characterisation class
- There are scientific drivers for datasets types or dataset features outside these 3

Characterisation 2 and spectral cubes

- Spatial and spectral axes may have position, bounds, support
- New specialized « polarisation axis » ---> list of states
- Level 4 = variation maps for each characterization property
 - Coverage = response on this axis (flat field)
 - Resolution = PSF, variable PSF

Characterisation 2 and spectral cubes

- Level 4 implementation in the model
 - Describes DataLinks showing where variation maps ²are
 - Parametric/moment description alternatively available for simple cases
- Utype debate parenthesis
 - In the full characterisation serialisation (CharTAP output ?)
 - utype designates a « role » for the software (this url gives you link to the psf of the considered cube)
 - Utype usage based on string recognition

Visibility datasets

- Most information available in IDI fits keywords
 - Map it to characterisation utypes
- What are the bounds in spatial frequencies of this visibility dataset ?
 - Uv plane = special flavor of spatial axis (CharAxis.name and CharAxis.ucd adapted)
 - Bounds on this specialized axis
- What are the visibility amplitude bounds in this IDI Fits file ?
 - Coverage bounds on a special flavor of ObservableAxis

Provenance details

- Example : Provenance DM to contain minimal description of observatory
 - Institution
 - Earth (or space) position
 - Number of antenna
 - Etc...
- Most information remains in proprietary formats and archives. Is clearly identified in the IVOA metadata via a DataLink-like attribute

Plans

- Implement these metadata in a CharTAP service next Spring