utypes

What are they?
What should they be?

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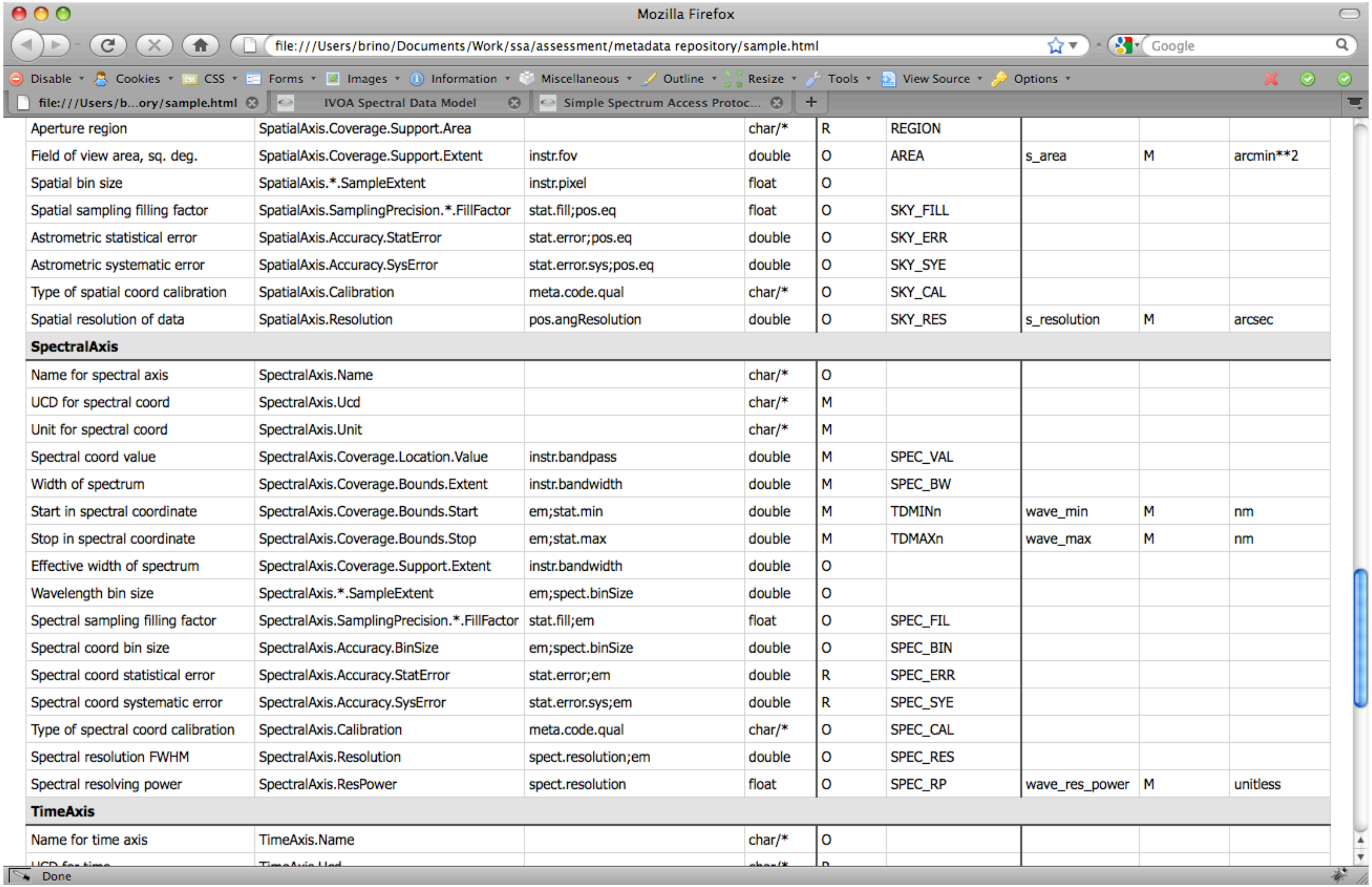
A Data provider's point of view

- I am here with a new hat: data provider
  - i.e., I am your client
- What I care most about? Metadata definitions
- Currently, it is very cumbersome
  - Several documents, that overlap sometime

What do I want then?

- An IVOA metadata definition repository
  - Easy to read, an reference to
- Am I alone?
  - Semantics: vocabularies
  - Theory: SnapDB

IVOA metadata definition repository


Mozilla Firefox
file:///Users/brino/Documents/Work/ssa/assessment/metadata repository/sample.html
Google
Disable
Cookies
CSS
Forms
Images
Information
Miscellaneous
Outline
Resize
Tools
View Source
Options
file:///Users/b...ory/sample.html
IVOA Spectral Data Model
Simple Spectrum Access Protoc...
Done

Aperture region	SpatialAxis.Coverage.Support.Area		char/*	R	REGION			
Field of view area, sq. deg.	SpatialAxis.Coverage.Support.Extent	instr.fov	double	O	AREA	s_area	M	arcmin**2
Spatial bin size	SpatialAxis.*.SampleExtent	instr.pixel	float	O				
Spatial sampling filling factor	SpatialAxis.SamplingPrecision.*.FillFactor	stat.fill;pos.eq	float	O	SKY_FILL			
Astrometric statistical error	SpatialAxis.Accuracy.StatError	stat.error;pos.eq	double	O	SKY_ERR			
Astrometric systematic error	SpatialAxis.Accuracy.SysError	stat.error.sys;pos.eq	double	O	SKY_SYE			
Type of spatial coord calibration	SpatialAxis.Calibration	meta.code.qual	char/*	O	SKY_CAL			
Spatial resolution of data	SpatialAxis.Resolution	pos.angResolution	double	O	SKY_RES	s_resolution	M	arcsec
SpectralAxis								
Name for spectral axis	SpectralAxis.Name		char/*	O				
UCD for spectral coord	SpectralAxis.Ucd		char/*	M				
Unit for spectral coord	SpectralAxis.Unit		char/*	M				
Spectral coord value	SpectralAxis.Coverage.Location.Value	instr.bandpass	double	M	SPEC_VAL			
Width of spectrum	SpectralAxis.Coverage.Bounds.Extent	instr.bandwidth	double	M	SPEC_BW			
Start in spectral coordinate	SpectralAxis.Coverage.Bounds.Start	em;stat.min	double	M	TDMINn	wave_min	M	nm
Stop in spectral coordinate	SpectralAxis.Coverage.Bounds.Stop	em;stat.max	double	M	TDMAXn	wave_max	M	nm
Effective width of spectrum	SpectralAxis.Coverage.Support.Extent	instr.bandwidth	double	O				
Wavelength bin size	SpectralAxis.*.SampleExtent	em;spect.binSize	double	O				
Spectral sampling filling factor	SpectralAxis.SamplingPrecision.*.FillFactor	stat.fill;em	float	O	SPEC_FIL			
Spectral coord bin size	SpectralAxis.Accuracy.BinSize	em;spect.binSize	double	O	SPEC_BIN			
Spectral coord statistical error	SpectralAxis.Accuracy.StatError	stat.error;em	double	R	SPEC_ERR			
Spectral coord systematic error	SpectralAxis.Accuracy.SysError	stat.error.sys;em	double	R	SPEC_SYE			
Type of spectral coord calibration	SpectralAxis.Calibration	meta.code.qual	char/*	O	SPEC_CAL			
Spectral resolution FWHM	SpectralAxis.Resolution	spect.resolution;em	double	O	SPEC_RES			
Spectral resolving power	SpectralAxis.ResPower	spect.resolution	float	O	SPEC_RP	wave_res_power	M	unitless
TimeAxis								
Name for time axis	TimeAxis.Name		char/*	O				
UCD for time	TimeAxis.Ucd		char/*	R				

So, what about utypes?

- Currently utypes are defined within data models
  - ssa:Char.SpectralAxis.Coverage.Bounds.Start
  - obs:Char/SpectralAxis.Coverage.Bounds.limits.Interval.LoLim
- For this to work, we need VO-wide identifiers for metadata definitions
  - Unique
  - Immutable
- My take: utypes shoud be repurposed.
  - Managed by a “utype” board