# On Expectations and Reality of SSAP services From Under Both Hats

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Simple archive of 1D FITS spectra reduced by IRAF several thousand (IRAF multispec \*.ms.fit) 2000px, 400A NOT binary table FITS

OBJECT
CRVAL1, CDELT1, CRPIX1
DATE-OBS, UT, EXPTIME
UTMIDDLE, HJD, JD
RA, DEC (of telescope)

OBSERVER, INSTRUMENT, configuration (filter, tilt)

SSA – "Simple", documentation

No examples, no guidelines – nothing to touch (SDSS proxy not working, cannot google easily) (conflict SDM and SSA)

Publishing toolkits (DALServer, DALtoolkit, SAADA, VODANCE, DACHS, Pleinpot) – VO publishing workshop

Trouble with bintable FITS – how to convert? No tools

Direct mapping of FITS header to metadata? NOT

ESO Metadata extractor – dead, difficult to run (2 javas)

mapping vocabulary, symbolic operations

Pleinpot (ELODIE) – P. Prugniel - old SSA 0.9 – VOX lot of dirty tricks - but worked! Coutout -part of operation bintable conversion – dual FITS on the fly but bad VOTABLE, difficult hacking, no support HEROS data 2008, EURO-VO DCA acknowledged

VODANCE – Db structure – mapping computation, CS

DaCHS - perfect, scripts in Python, flexible DB ingestor Documentation Excellent! Modules for postprocessing

# Conflict in UCD and SDM last IVOA Rec UCD1+ 1.23 (20070402)

S pos.eq

cannot be primary word

S src

S instr.fov

but SDM states:

pos.eq;src for Target.Pos

Char.SpatialAxis.Coverage.Location.Value should have UCD pos.eq

STScI python astrolib complains

but http://cdsweb.u-strasbg.fr/UCD says the keywords are type Q (prim or sec)

#### Troubles with VOTABLE

DaCHS provided bintable BASE64 for results VOT

VOSPEC did not see anything

SPLAT OK

=> Results as <TD> VOT

spectra in SDM – best as \*.vot BASE64 bin

SPLAT does not show FITS header – no info in metadata

=> generate both bintable FITS and VOT (FORMAT)

native 1D FITS – VOSPEC may not use

UNITS! (VOS insists on W/m2....empty values, ADU not)

Dataset.Length Mandatory – cutouts in m

Cannot predict length of cutout → unsolved metadata for original file

FLUXCALIB – minimal level of calibration how to select only uncalibrated (or rescaled)?

Separation of archives – each record in Registry?
How to query TELESCOPE, INSTRUMENT
COLLECTION? - clients

Permission to publish data in VO, No policy Data jealousy (data hugging) secret information – masking time at exoplanets I need to work another 10 years on this star! Cheeting by selection (halfa region is useless) The management or archive inhouse (data centers are not given the data) Small archive – no manpower for VO (toolkit!) Restricted access in SSA – authentication good

involve people in VO on their data (use SPLAT)

# **Hat of DATA CONSUMER**

Great expectations – all is in VO ;-)

very few SSA services with observations (TSA)

Mixture of time series in SSA (Corot, Integral)

Some work in only SPLAT some in VOSPEC

VOSPEC and SPLAT – different Registries

most do not response

Services do not obey SSA mandatory params ignore BAND, FORMAT, params order, VERSION

# **Hat of DATA CONSUMER**

Provided files not consumable in all clients only one favorite tested

Server returns bad VOTABLE – client fails

TARGETNAMES not supported! (optional but ..)

spectra of Vesta, solar, close binaries, clusters

targets not resolvable - GALEX, "secret" KEPLER 15

Reaction to empty POS queries (SPLAT can )

The content of archive unknown – how to get match?

WILDTARGET or REQUEST = getTargetNames

# **Hat of DATA CONSUMER**

Functionality of clients – user friendliness different view of astronomer and SW designer forcing user – select and then query (VOSPEC) Stability – SpecView crash SAMP compatibility of files Consistency in metadata (Fluxcalib not done) Provenance, Curation – not given but how to consume if all metadata given (clients)? Small observatories must be involved VO evangelization of (stellar) astronomers !!!