



Astronomy ESFRI & Research Infrastructure Cluster
ASTERICS - 653477



Keeping SCS up-to-date within DAL landscape

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OUTLINE

International Virtual
Observatory Alliance

IVOA Documents



Simple Cone Search
Version 1.03

IVOA Recommendation 22 February 2008

- DALI/VOSI endpoints
- Metadata discovery
- Response
- UCD updates
- Registry extension

DALI/VOSI prescribed endpoints

- DALI
 - "A simple query-only DAL service like ConeSearch can be easily described as having a single DALI-sync resource where the job is a query and the response is the result of the query."
- Changes
 - **capabilities**
 - tables!
 - availability
 - (examples)
- DALI-sync endpoint to stay as is
 - How to add DALI/VOSI interfaces to cone searches exposed as:
 - <http://my.server/conesearch?par=val&>
 - Allow POST-ing to base search

Metadata discovery

- SCS-1.03
 - “In particular, a zero value of Search Radius should not return an error condition. This is because an application may be more interested in the metadata than the data, and send a fixed query (for example $RA=0\&DEC=90\&SR=0$) simply to discover the fields delivered by the service.”
- DALI
 - MAXREC=0
 - MAXREC and overflow

Response glitches


- Add
 - RESPONSEFORMAT
- Relax
 - VOTable version = 1.0 | 1.1
 - RA, Dec mandatory type: double
 - Single <RESOURCE> in single <TABLE> response
 - Impacts Datalink usage inside SCS response
- Try to move towards DALI compliant error responses

UCD updates

- Mandatory ones in response
 - ID_MAIN
 - meta.id;meta.main
 - POS_EQ_RA_MAIN
 - pos.eq.ra;meta.main
 - POS_DEC_RA_MAIN
 - pos.eq.dec;meta.main
- Probably not a critical change on server side, but what about clients?
- Other UCD-1.0 annotation requests may be solved by STC annotations
- <GROUP> based double UCD annotation
 - Does it fit this scope?
 - Does it solve client side issue?

Validation stats

VO Validation


 Hosted by:
HEASARC

Validation Docs

Error Types for Center: cs:ConeSearch		
Error Name	Error Description	Frequency
comm	Apparent communication error produced an exception inside the validator:	1396
2.2.1d	Values in the ID_MAIN column must be unique.	742
2.1b	The RESOURCE element must contain exactly one TABLE.	548
2.1a	VOTable must contain only one RESOURCE.	510
2.2.1a	The TABLE must contain exactly one FIELD with ucd='ID_MAIN'.	392
validator error	connection/validation error: Timeout Exceeded, timeout set to 60 second(s)	256
3a	Error message must appear in an INFO or PARAM with name='Error' in required location.	78
2.2.2a	The TABLE must contain exactly one FIELD with ucd='POS_EQ_RA_MAIN'.	36
2.2.3a	The TABLE must contain exactly one FIELD with ucd='POS_EQ_DEC_MAIN'.	30
responseType	Apparent communication error produced an exception inside the validator: UnrecognizedResponseTypeException:	24
2.2.1b	The ID_MAIN column must have datatype='char'.	16
2.2.3b	The POS_EQ_DEC_MAIN column must have datatype='double'.	15
2.2.1c	The ID_MAIN column must have a string-appropriate arraysize (recommend '*').	13
2.2.2b	The POS_EQ_RA_MAIN column must have datatype='double'.	12
2.2.2c	The POS_EQ_RA_MAIN column must be defined as a scalar--i.e. arraysize="1", arraysize="", or not provided (preferred).	6
2.2.3c	The POS_EQ_DEC_MAIN column must be defined as a scalar--i.e. arraysize="1", arraysize="", or not provided (preferred)	6
Total		4080

Registering Simple Cone Searches

- Section 3 (Resource Profile) and Appendix B (Mapping to RM and VOResource)
 - Probably better if replaced by SimpleDALRegExt reference
 - Ideally: import SimpleDALRegExt.sub(SCS) into an SCS revision

Summary

- Updating SCS to current DAL landscape seems possible
- Updates seem compatible with current implementations
- Changes must not affect existing server/client side assets severely
 - 1.0 clients should work with 1.1 services
 - 1.0 services must be consumable by 1.1 clients

謝謝