

## Astronomy Data Query Language April 2018







## ADQL 2.1 submitted for PR review 12<sup>th</sup> Jan 2018

http://www.ivoa.net/documents/ADQL/20180112/index.html



### **Key issues**

- Errors and omissions
  - BNF grammar
  - Text descriptions

- Reference implementations
- ivo\_ functions
- 1=CONTAINS
- Coordinate system

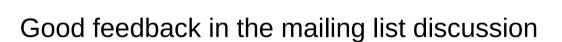








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April 2018





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- Errors and omissions
  - BNF grammar
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#### Still to be resolved

- Reference implementations
- ivo\_ functions
- 1=CONTAINS
- Coordinate system

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# IVOA

#### Still to be resolved

- ivo\_functions
- 1=CONTAINS
- Coordinate system

Function names starting with ivo\_ are reserved for functions defined in an IVOA standard.

RegTAP is an example of best practice for this.

```
ivo_nocasematch()
ivo_hasword()
ivo_hashlist_has()
ivo_string_agg()
```

Note – the standard does not need to be finalized before a function can be implemented.

Defining the function in a draft standard is enough.







#### Still to be resolved

• ivo\_ functions

Long, long time ago. .. (2014)

1=CONTAINS

Coordinate system

I thought we were eventually aiming to replace this:

WHERE CONTAINS(...) = 1

With this:

WHERE CONTAINS(...)

Or at least this:

WHERE CONTAINS(...) = True





# IVOA

#### Still to be resolved

ivo\_functions

Ok – I don't know.

• 1=CONTAINS

Please, ELI5 – (Explain Like I'm 5) perhaps over lunch ..

Coordinate system

Some tables may have data in different coordinate systems.

TAP\_SCHEMA does not include this in the table metadata.

The only way to find out is to query the table and check the metadata for the FIELD element in the VOTable you get back?

Why are we getting rid of COORDSYS(column)?



What harm/cost/problem are we trying to solve?





IVOA

### Acceptance criteria

- Good enough for 2.1
- Good enough for 3.x

Lots of wonderful things ....

- Machine readable PEG grammar
- Automatic unit tests
- Comprehensive set of test queries and data
  - Valid queries that must pass
  - Invalid queries that must be rejected
  - Expected results
  - Error bounds for geometric operations







- Acceptance criteria
  - Good enough for 2.1
  - Good enough for 3.x
    - Reference implementations
      - DaCHS
      - 2.1 branch of TAPLib (in collaboration with ROE)
      - ... anyone else?







- Acceptance criteria
  - Good enough for 2.1
  - Good enough for 3.x
    - Outstanding issues resolved
    - Specific validation tests for 2.1 changes?
      - Valid queries that must parse
      - Expected results?









- Acceptance criteria
  - Good enough for 2.1
  - Good enough for 3.x
    - Unlikely to be finished by the meeting in May.
      - Limited developer time available.
      - Please send BNF fixes as diff files.
      - Try to make them as small as possible.







- Acceptance criteria
  - Outstanding issues resolved
    - Lyonetia GitHub project https://github.com/ivoa/lyonetia
      - Issue tracking system
      - JSON syntax for test queries

Should we have issue tracking for all our standards?

Should we use the *same* issue tracking system?



Do we need an IVOA issue tracker?

I need something, I keep loosing things.

