



ASTERICS Technology Forum 2018/04/16



## Astronomy Data Query Language

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## 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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## Good feedback in the mailing list discussion

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## Still to be resolved

- Errors and omissions
  - BNF grammar
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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
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Long, long time ago. .. (2014)

I thought we were eventually aiming to replace this :

WHERE CONTAINS(...) = 1

With this :

WHERE CONTAINS(...)

Or at least this :

WHERE CONTAINS(...) = True

## Still to be resolved

- ivo\_functions
- 1=CONTAINS
- Coordinate system

Ok – I don't know.

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

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) ?

- 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 ?

# GitHub

