ADQL 2.1

Astronomy Data Query Language

IVOA interop, Maryland USA
8th Nov 2018

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Boolean functions

The intention was to replace

```
SELECT .. WHERE 1 = CONTAINS(…)
```

With user friendly

```
SELECT .. WHERE CONTAINS(…)
```

Gain – simpler queries

Cost – obscure error messages when we get it wrong

Discussed in May interop
No clear conclusion

Check what is allowed in
SQL92 ?

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TIMESTAMP

TIMESTAMP was added to maintain compatibility with VOTable

Constructor syntax was defined to match geom constructors

Add text recommending when to use TIMESTAMP
and when to use more accurate types ?

Discussed in May interop
Agreed to keep this in 2.1.
Needs text to recommend when to use
TIMESTAMP vs other date types

TODO

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SQL comparison

Request from new implementors

Appendix listing the differences between ADQL and SQL

Probably not ready for 2.1, bounce to 2.2 ?

PEG grammar in 3.x is more important

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String functions

Request from implementors

    UPPER
    LOWER
    STR_LEN
    SUB_STR ..

Probably not ready for 2.1, bounce to 2.2

PEG grammar in 3.x is more important

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Set operations

UNION, EXCEPT, INTERSECT

Questions about the accuracy of the BNF

- Need to hear from implementors.

- Please send suggested fixes.

- Is it "good enough" for 2.1 ?

Discussed in May interop
Needs a second pair of eyes to review BNF

TODO

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Next steps

Only accepting minor changes for 2.1

Work in progress for 2 independent implementations

Non-trivial changes will get bounced to 2.2

Version 3.x will have PEG grammar

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Optional components

The specification defines the vocabulary and the grammar

- Shapes
  - Circle
  - Square
  - Triangle
- Colours
  - Red
  - Green
  - Blue

- Metadata query
  - Do you have <shape> <colour> ?
  - Do you support <colour> ?

- Data request
  - Please send me <count> <shape> <colour>.

- Data response
  - Here are the <count> <shape> <colour> you asked for.

- Error response
  - I'm sorry we don't have <count> <shape> <colour>.
  - I'm sorry, we don't support <colour>.

Single language, single grammar.

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STC REGION

1) Import the text from TAP 1.0 as an appendix in ADQL 2.1

2) Update the text in response to comments

3) Good enough for 2.1 ?

Discussed in May interop
Agreement to adopt the text from TAP
Needs review by implementors

TODO

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Recommended crossmatch

Move it to an appendix rather than the main specification

Happy to accept text evolving on mailing list

Discussed in May interop
Agreement to move to an appendix

TODO

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CIRCLE(POINT, radius)

1) Sounds sensible, need to hear from implementors

2) Does it *need* to be in 1.2, or can it wait for 1.3 ?

Discussed in May interop
Agreement to include in 1.2
BNF needs fixing

TODO

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CAST

1) Happy to drop CAST from 2.1

2) If someone really wants CAST, we can add it to 2.2

Discussed in May interop
Agreed to remove from 2.1

Removed CAST, svn 5218

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BOX

1) Rough straw poll indicates no one strongly *needs* it

2) Remove BOX from the specification

Discussed in May interop
Agreement to deprecate BOX in 2.1

Deprecated BOX, svn 5219

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