Sensible Query Languages for the Registry

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ADQL/x (for Registry)

- Required by the standard
- Unwritable by human hand (xml syntax)
  - yet editors are hard to find
- Spatial operators could allow search-by-coverage in the registry
  - implemented?
- Can't summarize or extract, only query
- Poorly defined, no semantics
  - shoehorning a tabular QL onto a hierarchical datamodel

XQuery

- Optional part of the standard
- Human writable
  - but by scientists?
- No spatial operators
- Can summarize, extract and query
  - flippin useful
- Well defined, documented & implemented
- Ties registry implementations to using XMLDB
  - isn't that a sensible thing to do anyhow?

Keyword Search

- Required part of the standard
- List of keywords, AND or OR'd together
- No quotes, logic, wildcards
- No control of where in resources matches should occur.
- No control of what kinds of resource to match
- Easy to implement

Functionality Gap

- None are well suited for scientist queries.
- Same goes for client programmers too.
- ADQL/X – too much to do before it's usable
- Xquery – tricky to write, tied to XMLDB
- Keyword search – not expressive enough.

Barriers for App Programmers

- Constructing ADQL/x
  - necessary for precision querying.
- SOAP
  - requires a stack of libraries
  - gets in the way
  - inefficient when returning large query results.
- Finding Registry service query endpoints.
  - Register full registries!
  - Simple XML list from RofR?

Why not something sensible?

- REST query interface to registry
  - http POST or GET
- Request: a sensible query language
  - not xml
  - precise enough, but still astronomer-friendly.
- Response: just the VOResource XML

A Sensible Registry Query Language

- ?

Personal Experience

- Voexplorer: queries registry using Xquery
- defines a little googlish language for users
- no syntax errors
- tends to produce false-positives
  - more reassuring for user
  - serendipitous discovery
- http://tinyurl.com/2vszol
  - language description & compiler
  - targets Xquery, but could easily target SQL