PPARC

A PPARC funded project

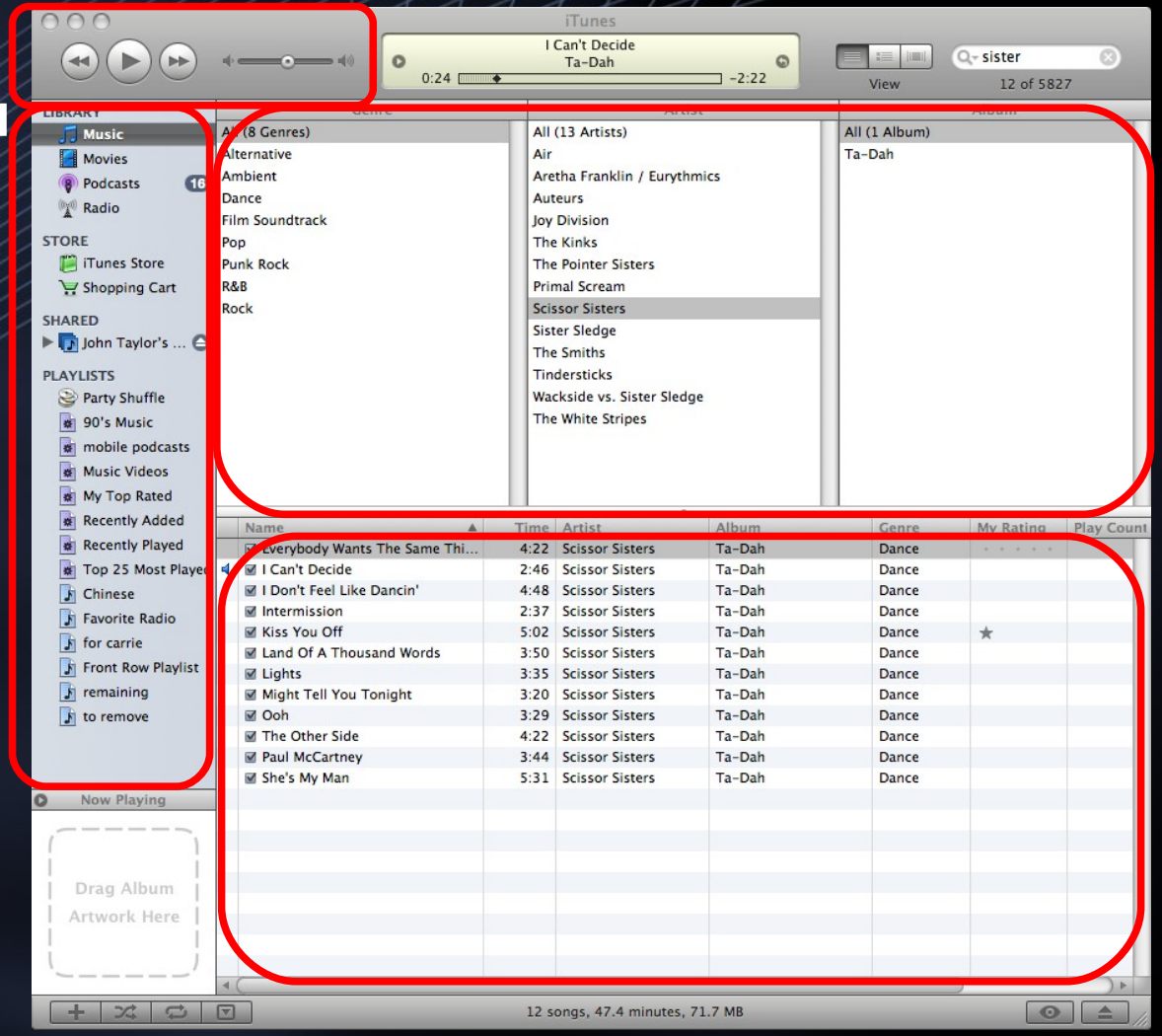
Resource-centric Access to the Virtual Observatory

Noel Winstanley
Jodrell Bank Observatory
University of Manchester, UK

iTunes

- Browse a collection
- Incomplete Metadata

- Select subset
- Filter
- View
- Use

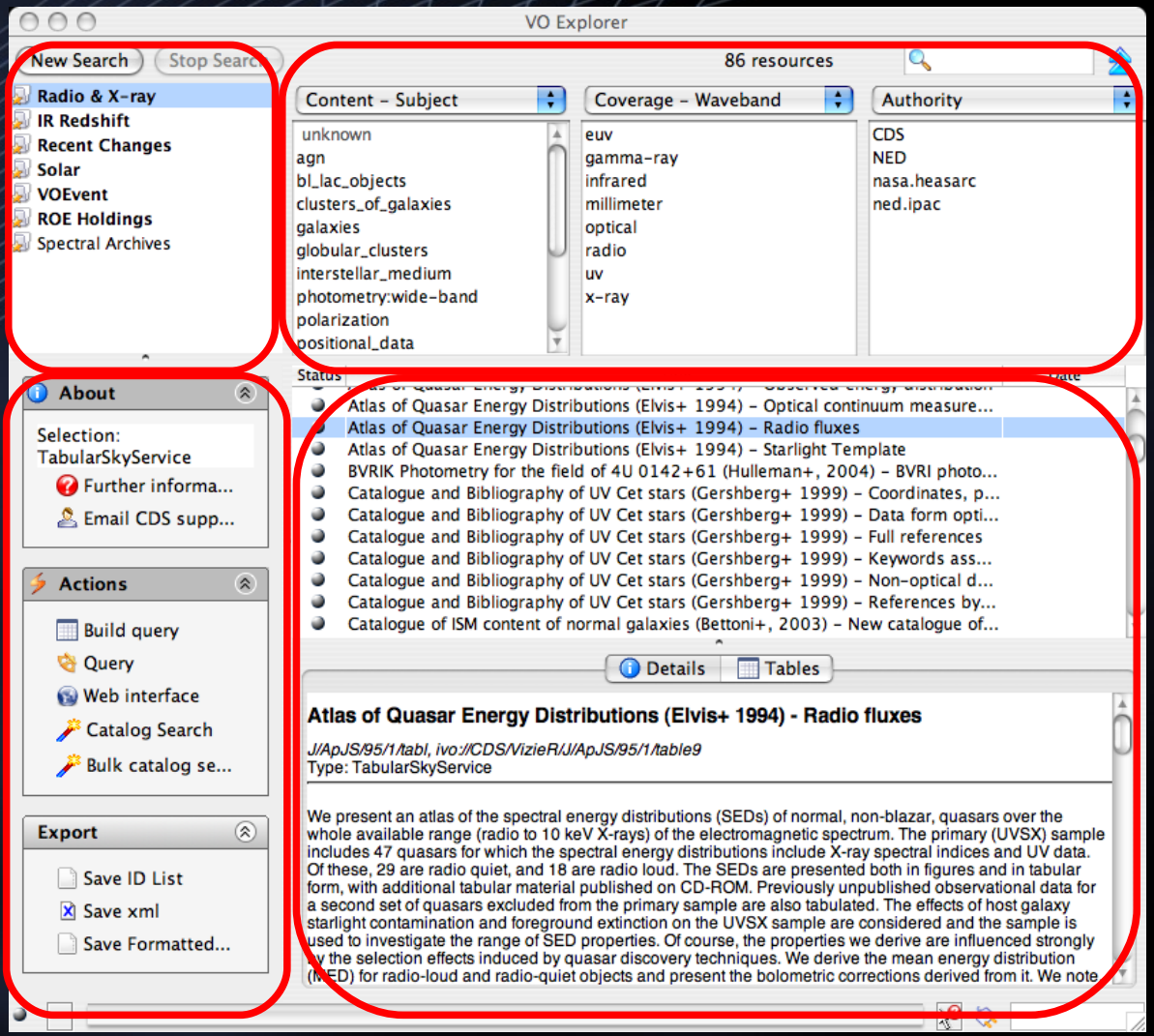


THE UNIVERSITY of MANCHESTER
Noel Winstanley - nw@jb.man.ac.uk - www.astrogrid.org/desktop
Astro Grid
EURO VO TECHNOLOGY CENTRE

VOExplorer

- Browse a collection
- Incomplete Metadata

- Select subset
- Filter
- View
- Use



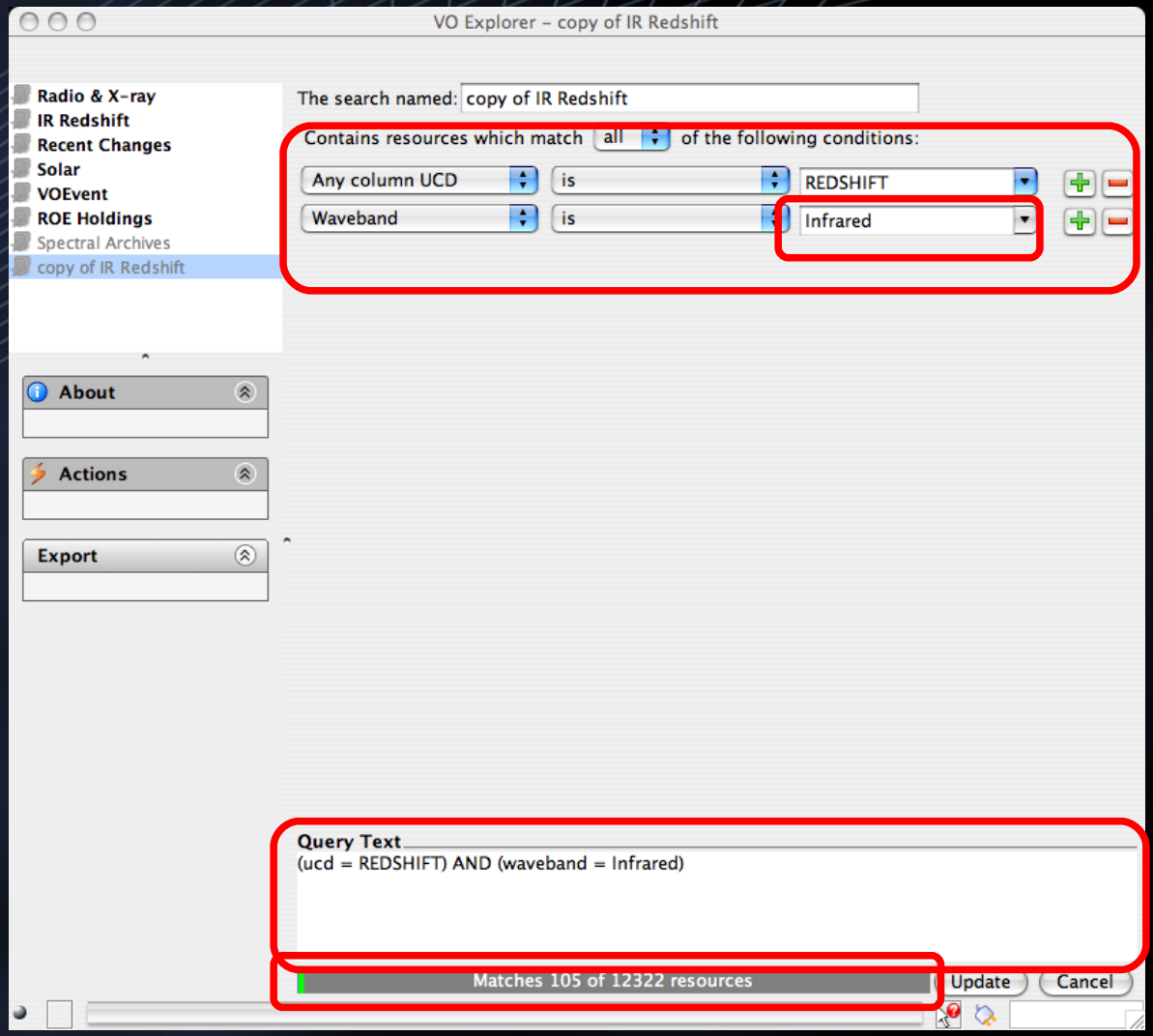
THE UNIVERSITY of MANCHESTER
Noel Winstanley - nw@jb.man.ac.uk - www.astrogrid.org/desktop
Astro Grid
EURO VO

Selecting a subset

- Describes a subset of items to search within.
- Static Lists (Playlists)
  - hand-picked items
- Smart Lists (Smart Playlists)
  - defined by rules over resource fields
  - Name, Subject, Type, Publisher, Authority, UCD, ...
  - Form-Driven or Textual
- Subsets retrieved from Registry using XQuery to standard IVOA interface.
  - Fast, handles large result sets (< 500)
  - Caches previous queries on disk
  - I'll be talking more about this in the following Reg session

Defining a smart list

- Clauses
- Auto-complete
- Text-Entry
- Query Size Estimator



THE UNIVERSITY of MANCHESTER
Noel Winstanley - nw@jb.man.ac.uk - www.astrogrid.org/desktop

Filtering – Narrowing the subset

- Interactive Exploration
- incremental search field
- 'filter wheels' – enumerate values present in the subset
  - Subject, Waveband, Authority, Publisher, Creator
  - Type, Capability
  - UCD, Column name (fine grained)
- Awkward - Spatial / temporal coverage
  - not discrete values
  - needs a different approach.

View

- Table of resources (title, last modified, VoMon status)
  - plan to make additional columns addable.
- Formatted display of a single resource
- XML Source of resource, for geeks
- Table Metadata viewer
- Plan to add a tabular presentation of resource
  - clearer where fields have been omitted.

Use

- Bulk Query
  - for Cone, SIAP, SSAP, STAP (VOEvent) Vizier
  - it's Astroscope – query, browse, process.
- Task Launcher (for CEA)
  - still to do
- Query Builder (For DSA and TAP)
  - partly done
- On Metadata
  - open webform.
  - further information webpage
  - email curator (whinge)

Use - Automation

- Generate scripts by combining
  - a template
  - & user's selection
  - & possibly: further user input.
- Template - (Python) Script that performs queries by calling Astro Runtime.
- Product
  - a Script that can be run external to the UI
  - Can be extended and hacked on by the astronomer.
- Simple query or extensive workflow
  - On-ramp to scripting

Use - Import /Export

- Send resource selection by plastic message to other apps
  - VOExplorer also accepts this plastic message.
- Save resource XML to disk.
- Save resource id list to disk.
- Drag-n-drop resource id list between apps
  - (sometimes: depends on app and OS)

Demo (Wireless Permitting)

- Fingers crossed.
- Connecting to the China-VO Registry

Registry Resource Messaging

- VOExplorer is intentionally limited in what it does with resources
  - primary function is discovery.
  - provides simple forms, not *precision data* access.
- So far, PLASTIC has been all about dispatch of data
- Passing Resources is dispatch of functionality
- 2 proposed methods of sending PLASTIC message
  - How to determine what resources are acceptable for a receiving application?
    1) Here's a resource - Do with it what you will – or ignore
    2) Use standardID of the capability / resource type as part of the message name.
       Sending app pattern-matches against message names.

Future Plans

- Additional resource discovery mechanisms
  - reasoning / ontologies
  - tagging / folksonomies
  - popularity / recommendations
- Complete the other parts of the application suite
  - FileExplorer – common view of file/ftp/sftp/myspace/vospace.
  - Task Launcher
  - Query Builder
  - AR Dialogues
    - so functionality can be access from other applications
- **First public beta – Mid July**
  First Release– End of August.