

WA2, Interoperability

AVO SWG meeting

Jodrell Bank, January 21st, 2003

WA2 tasks

- WA2 first year milestone:
 - Interoperability first year prototype
 - Inclusion of partner ground/space archives
- Standards
- Implementation of new functionalities
- Demo: development for the AVO GOODS prototype

Target archives

- Log in VizieR
ISO, MERLIN, INT Wide Field Survey,
ESO/EIS, VLT, XMM, TERAPIX large
images
- Active links to archive: ISO, MERLIN
Soon to come: XMM, INT
- Links to images in Aladin
Supercomos

Other archives

Discussion with other archive

OPTICON-WG-type task

- TNG
- IRAM
- Integral (ISDC Archive Scientist)

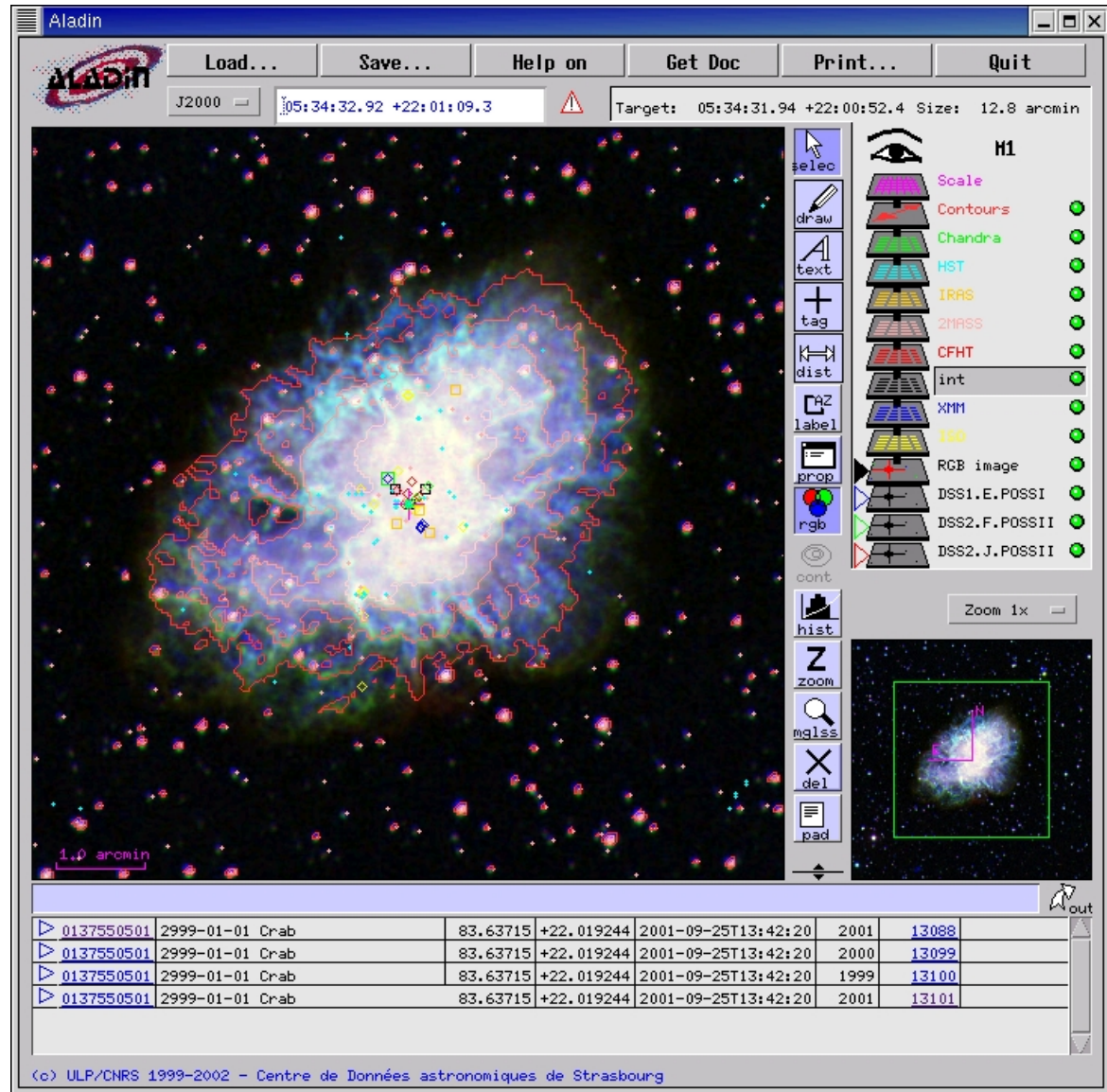
In practice (1)

Previous experience at CDS, but now a systematic approach

- Case by case discussion about the available information, how to describe and update it
 - Progressive refinement of the analysis frame (metadata, ...)
 - Inclusive (NASA data, TNG, ...)
- ⇒ Recommendations (minimal, usable, useful)

In practice (2)

- ‘Direct’ access to images
- Access rights
- Error bars
- Which information has to be given to permit data selection and legitimate usage
- For data mining purposes:
 - « granularity », completeness, lacunarity of data
- Contents of FITS headers...



VizieR/Aladin adjustments

- New catalogues identified for inclusion in VizieR, e.g. WENSS
- Dynamic scale
 - Interferometry data
 - ISO
- Very large images (MEGACAM)
- New functions: colour composition, contours

Interoperability standards

- Interoperability meetings (OPTICON/IVOA)
 - Strasbourg VOTable, January 2002
 - Garching UCD, Web Services, June 2002
 - Baltimore SIAP, UCD, Registry, Data Model, Oct. 2002
 - Next meeting: Cambridge UK, May 2003

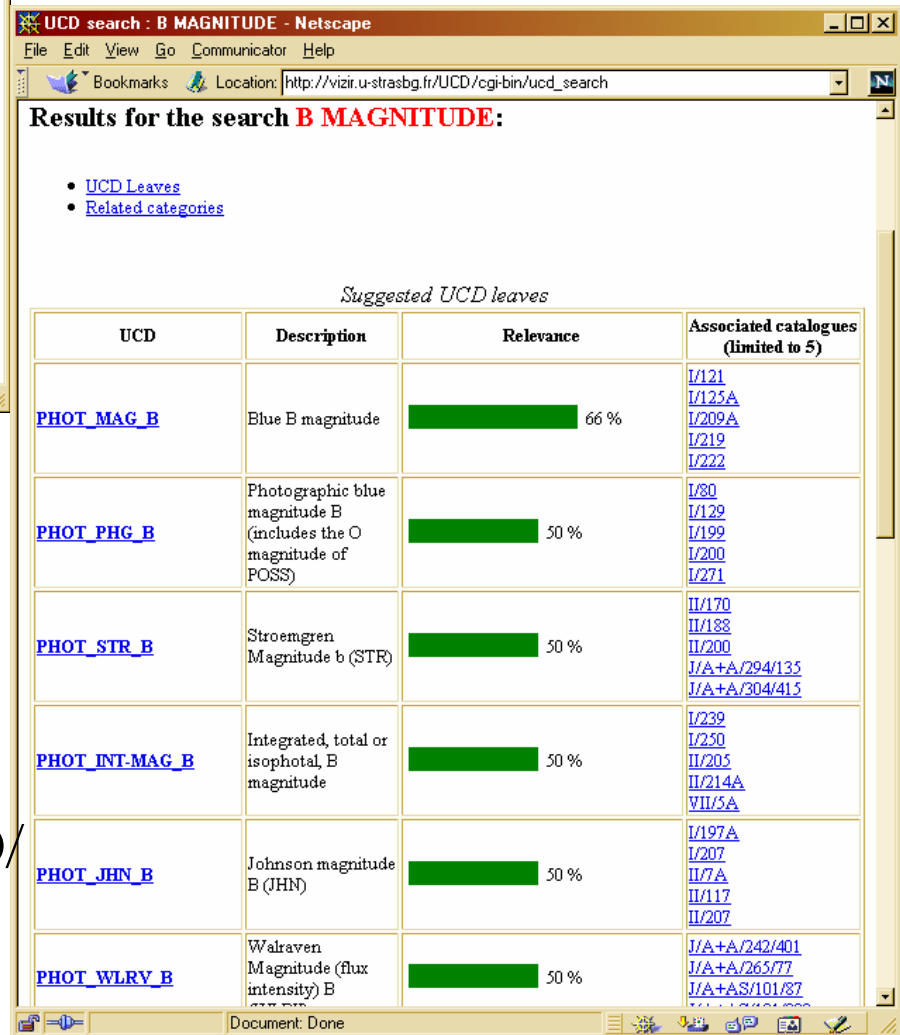
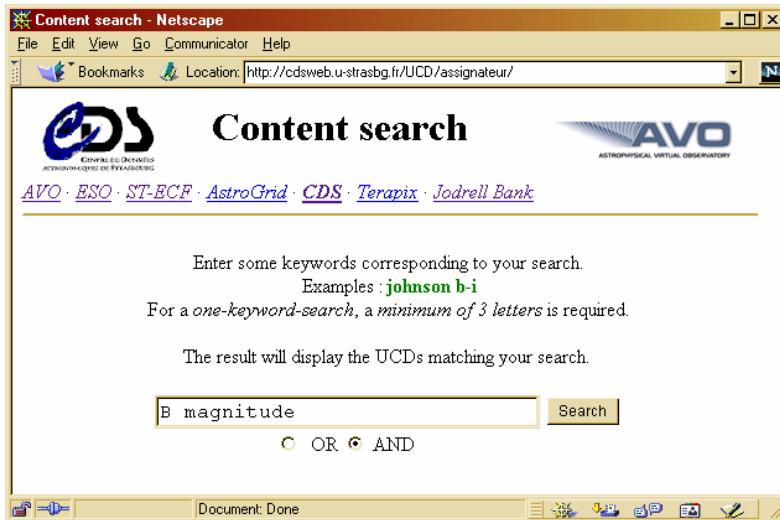
- VOTable, V1.0, Apr. 15th, 2002

A major enabling tool for the demos

VOTable ‘light weight’ parser SAVOT

Current hot topics (1)

- Uniform Content Descriptors
 - one/a few/many?
 - used in ‘filters’, data discovery, comparison, transformation
 - validation of table description in VizieR
 - many experiment (SDSS, Space-time coordinates, Data Model)



UCDs and catalogues related to B magnitude

<http://vizier.u-strasbg.fr/UCD/>

Table1	<input type="text" value="I/146/ppm1"/>
Table 2	<input type="text" value="I/239/tyc_main"/>
Object name or position	<input type="text" value="17 57 24 +04 36 09"/>
<input type="button" value="Go !"/>	

Choose the columns which will be converted

Find columns with similar contents and units

I/146/ppm1		UCD	I/239/tyc_main	
Mag	mag	PHOT_MAG_V	<input type="checkbox"/> VTmax	mag
			<input type="checkbox"/> VTmin	mag
RAJ2000	"h:m:s"	POS_EQ_RA_MAIN	<input type="checkbox"/> RA(ICRS)	deg
DEJ2000	"d:m:s"	POS_EQ_DEC_MAIN	<input type="checkbox"/> DE(ICRS)	deg
pmRA	s/yr	POS_EQ_PMRA	<input type="checkbox"/> pmRA	mas/yr
pmDE	arcsec/yr	POS_EQ_PMDEC	<input type="checkbox"/> pmDE	mas/yr

Current hot topics (2)

- Hierarchical data model (view from IDHA)
 - Data browsing and loading
 - Collab. CfA
- Web Services
 - cf WA3/AstroGrid
 - Sesame: generalized name resolver (SIMBAD/Vizier)
 - The GLU in WS context (SOAP)

GOODS demo (1)

- RGB, contour plots
- Hierarchical view of data
- VOTable parser
- UCDs and ‘filters
- Interface to external tool (SED ... ACE)

GOODS demo (2)

- Data integration in image server, cats in VizieR
- Load heavy configurations in Aladin
- Manual recalibration
- Plane stack (number of planes, folders)

GOODS demo from interoperability point of view

- VOTable ‘light weight’ parser
VOTable as data exchange format
- Hierarchical view of data from data model
- UCDS, ‘filters’

Plans for next months (1)

- Science tests (Kontizas, Mann, Preite Martinez)
- UCDs
 - Tool for automated assignement
 - Assessment of tests/ ‘atomic’ proposal
- Data model
 - Simple image access protocol
 - IDHA (disc. in WA2)

Plans for next months (2)

- Very large catalogues
 - R&T, management with a PC cluster
 - Efficient multi-criteria access
- Table visualization tool (Indian VO collaboration) – to be assessed
 - Inclusion in VizieR
 - Interface with Aladin

Plans for next months (3)

- Web Service
 - Sesame name resolver
 - GLU in Web service context
- Aladin
 - Public version including filters
 - Assessment of new functions from science demo/science tests
 - Interface with table visualizer
 - SAIP
- Test of NVO proposed resource description

IAU

- Preparation of IAU GA
 - Joint Discussion
 - Commission 5
 - Demos (incl. Table visualisation, more distributed resources e.g. MACHO)