

Les outils de l'Observatoire Virtuel

Merci à Mark Allen
(Project Scientist de
l'Euro-VO Data Centre Alliance)



Les objectifs de l'Observatoire Virtuel

- Permettre aux scientifiques d'accéder facilement aux données disponibles en ligne
- Fournir des outils (traitement et analyse de données, visualisation, ...)

L'OV fournit un cadre (standards, outils) aux producteurs de service pour 'publier' leurs services dans l'OV



Dans la pratique

- C'est probablement l'aspect 'chantier', 'work in progress' qui domine l'impression qu'on peut avoir de l'OV
 - Les projets sont en cours de développement
 - l'essentiel de l'action de l'AS OV est d'aider au développement d'une communauté de producteurs de services en France
- En fait, les scientifiques peuvent utiliser l'OV depuis le début: il y a des services qui marchent, et d'autres sont mis à disposition de la communauté au fur et à mesure.



Les services en ligne (1)

- En astronomie: données et services en ligne dès le début du développement d'Internet (et même avant!)
- Des outils d'usage quotidien: archives d'observatoire, journaux, ADS, services 'à valeur ajoutée'
 - par ex. Simbad, VizieR, Aladin – cités dans 10% des articles astro des 4 grands journaux
 - Déjà une révolution dans les méthodes de travail, même si le développement et l'utilisation des archives en ligne sont inégaux selon les communautés
 - Augmente l'efficacité de la recherche de façon très significative
 - Aide au développement de nouveaux types de recherche, ex. astronomie multi-longueur d'ondes



Apport de l'OV

- Un plus pour les services traditionnels: facilite l'utilisation en donnant accès via des standards communs, et en permettant d'intégrer les information venant de différents services (par ex. accès en ligne aux archives images ou spectrales via une seule interface 'portail')
- Une incitation forte à produire de nouveaux services – par ex. Services thématiques, Théorie-modèles
- Nouveaux acteurs: *les équipes*



Transparents présentés par M. Allen
à la réunion du Science Advisory
Committee de l'Euro-VO

Vision à l'échelle IVOA

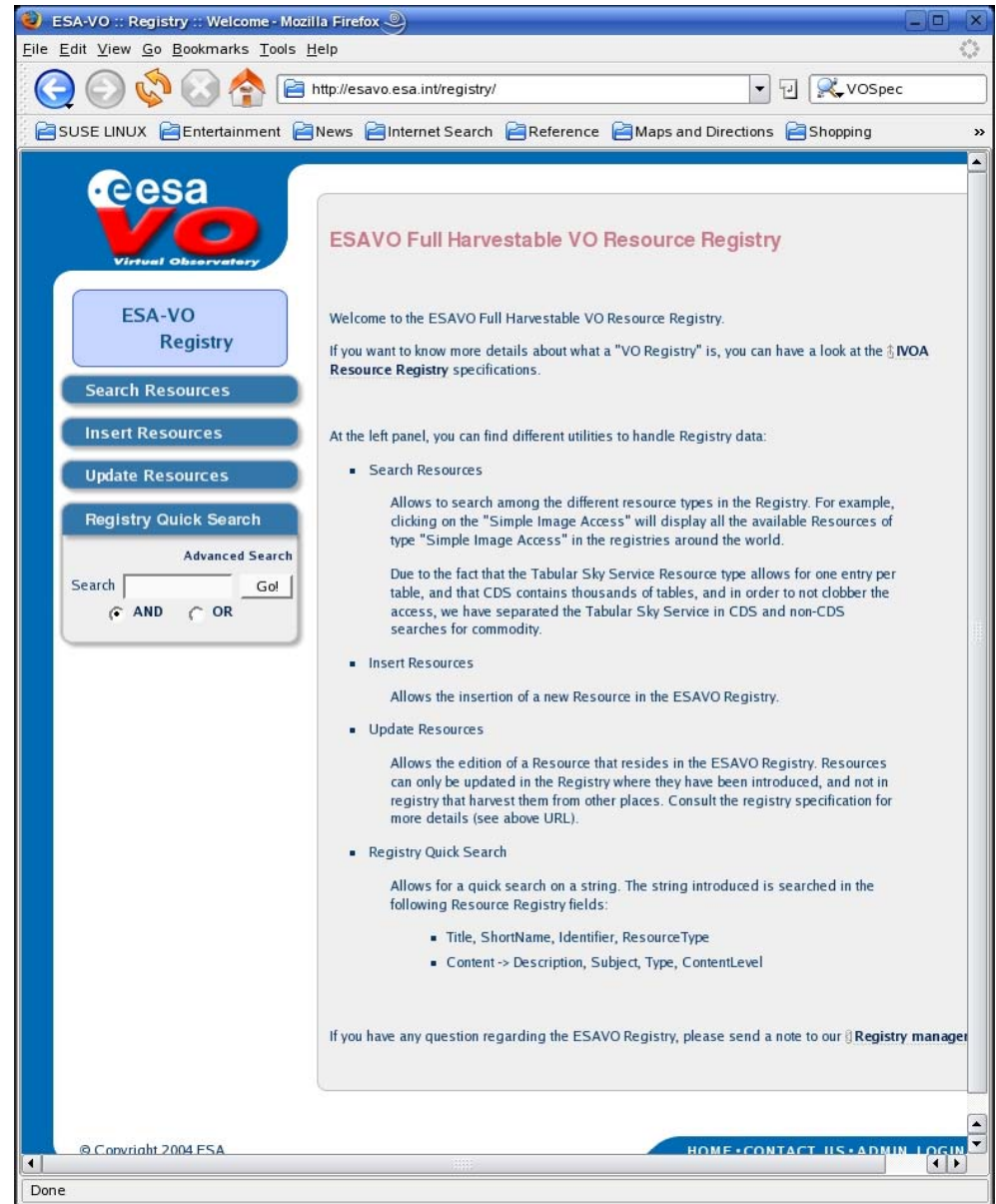


Trouver de l'information dans le VO

Registries/répertoires

Utilisations simples ou
avancées

Reste des problèmes
de nettoyage des
entrées (passage en
phase opérationnelle)



The screenshot shows a web browser window titled "ESA-VO :: Registry :: Welcome - Mozilla Firefox". The address bar shows "http://esavo.esa.int/registry/". The page features the ESA-VO logo and a navigation menu with buttons for "ESA-VO Registry", "Search Resources", "Insert Resources", "Update Resources", and "Registry Quick Search". The main content area is titled "ESAVO Full Harvestable VO Resource Registry" and contains a welcome message and a list of utilities for handling Registry data:

- Search Resources**: Allows to search among the different resource types in the Registry. For example, clicking on the "Simple Image Access" will display all the available Resources of type "Simple Image Access" in the registries around the world.
- Insert Resources**: Allows the insertion of a new Resource in the ESAVO Registry.
- Update Resources**: Allows the edition of a Resource that resides in the ESAVO Registry. Resources can only be updated in the Registry where they have been introduced, and not in registry that harvest them from other places. Consult the registry specification for more details (see above URL).
- Registry Quick Search**: Allows for a quick search on a string. The string introduced is searched in the following Resource Registry fields:
 - Title, ShortName, Identifier, ResourceType
 - Content -> Description, Subject, Type, ContentLevel

At the bottom of the page, there is a footer with "© Copyright 2004 ESA" and navigation links for "HOME", "CONTACT US", "ADMIN", and "LOGIN".



ESA-VO Registry

Search Resources

Resource
Organisation
Authority
Data Collection
Service
Registry
Sky Service
Tabular Sky Service
Tabular Sky Service (CDS)
Simple Image Access
(SIAP)
Cone Search (CS)
Open Sky Node (OSN)
Simple Spectrum Access
(SSAP)
Simple Line Access (SLAP)
Theoretical Spectrum
Access (TSAP)

Search Interface

It is possible to search for resources in various ways on the registry.

The first, and simpler one, is by keywords. Just enter one or more keywords separated by spaces in the appropriate input box on the right, or use the "Registry Quick Search" that should be available on every page. The keywords can be linked either by "AND" (the default) or by "OR" logical functions.

Note that any text enclosed in double quotes (") will be considered as one "word", allowing searching for expressions or even full sentences. The search is case-insensitive and results are ordered by occurrences of the keywords in the resource.

Another method is to use the ADQL query language to effectuate more precise search. The Astronomical Data Query Language can be used in its XML or its String form.

Here is a query example in its XML form:

```
<?xml version="1.0" encoding="UTF-8" ?>
<where xmlns="http://www.ivoa.net/xml/ADQL/v1.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Condition xsi:type="intersectionSearchType">
    <Condition xsi:type="likePredType">
      <Arg xsi:type="columnReferenceType" xpathName="descrip" />
      <Pattern>
        <Literal xsi:type="stringType" Value="%esa%" />
      </Pattern>
    </Condition>
    <Condition xsi:type="comparisonPredType" Comparison=">
      <Arg xsi:type="columnReferenceType" xpathName="curation" />
      <Arg xsi:type="atomType">
        <Literal xsi:type="stringType" Value="CDS" />
      </Arg>
    </Condition>
  </Condition>
</where>
```

Here is the same query in its String form:

```
WHERE #description# LIKE 'esa%' AND #curation/publisher#
```

Note that the elements to search should be specified using the xpathName attribute for the XML form and enclosed in sharp characters (#) for the String form. The ADQL versions currently supported are v0.7.4, v0.8, v0.9 and v1.0; it must be specified by using the proper XML namespace declaration.

The screenshot shows the search interface of the ESA-VO Registry. It features four distinct search forms stacked vertically:

- The keyword search form:** Includes a text input field for "keywords", radio buttons for "AND" (selected) and "OR", and a "Search" button.
- The ADQL/x search form:** A large empty text area for entering XML or ADQL queries, with a "Search" button at the bottom.
- The ADQL/string search form:** A large empty text area for entering string queries, with a "Search" button at the bottom.
- The identifier search form:** Includes a text input field for "identifier" and a "Search" button.

Mot clé
Langage de requête
identificateur



Utilisation

- Description des ressources
 - Information limitée sur comment utiliser une ressource
- A partir d'une Application
 - Trouver les services et les utiliser
 - Par ex.
 - Identifier les ressources qui donnent accès à des images ou à des spectres
 - Faire les requêtes autour d'une position
 - Sélectionner et utiliser l'information



NVO Datascope:

Interface Web

Mise à jour au fur et

à mesure que les services
répondent

Peut être directement utilisé
dans des outils

DataScope data for CDFS [03 32 28.00, -27 48 30.0] 0.25° - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://heasarc.gsfc.nasa.gov/cgi-bin/vo/datascope/datascope...

SUSE LINUX Entertainment News Internet Search Reference Maps and Directions Shopping

NVO DataScope Results for CDFS [03 32 28.00, -27 48 30.0] / 0.25°
New Query - DataScope Help - Feedback - Cache date: 2006-03-28 09:19 UTC

National Virtual Observatory Hosted at NASA/HEASARC

Request Status: Scanning 110 of 479 resources processed. Refresh halted. Use manual refresh to get latest resources.

Browse available resources by clicking on their names and make selections for further analysis.

Analysis options:
Save locally as TAR file
Analyze in Aladin
Analyze in OASIS

Check resource checkbox to select resource for analysis
Click on resource name to view that resource (and select data files within it)
Click on ? to see resource metadata

When resources have multiple data files you need to specify which files you are interested in. Your selections are remembered similar to how commercial sites use shopping carts. Resources where you need to make selections show (*n_{selected}/n_{available}*) after the name.

Major Multiwavelength Services

SkyView(0/18) ?

Images (Data in one or more FITS files)

Mult MAST-Scrapbook(0/260) ?

Optical DSS1(1) ? SWIRE(0/11) ?

Radio CO(1) ? GB6(1) ? NVSS(1) ?

Infrared 2MASS QL(0/24) ? 2MASS-H(1) ? 2MASS-J(1) ? 2MASS-K(1) ? 2MASS(0/3) ?
 IRAS(0/4) ? ISSA(0/8) ? SFD IR(0/2) ?

X-ray Chandra(0/22) ? RASS(0/3) ? ROSAT/SPSPC(0/2) ? XMM-Newton(0/9) ?

Other images GALEX(0) ?

Catalogs of Objects (Data in one VOTable)

Galaxies GALEX(5567) ?

Other tables NOMAD(1949) ? USNO-A2(757) ?

Browse available resources by clicking on their names and make selections for further analysis.

Analysis options:
Save locally as TAR file
Analyze in Aladin
Analyze in OASIS

Check resource checkbox to select resource for analysis
Click on resource name to view that resource (and select data files within it)
Click on ? to see resource metadata

When resources have multiple data files you need to specify which files you are interested in. Your selections are remembered similar to how commercial sites use shopping carts. Resources where you need to make selections show (*n_{selected}/n_{available}*) after the name.

No response from 369 resources:
2MASS-PSC(CDS) , 2QZ , 2cmVLBA , AC2000.2 , ACRS , ACS , ADIL , ADIL , ADS , ASCA , ASCA , ASCA , ASCA , ASCA , ASCA/JAGN , ASCC-2.5 , ATNF , Abell CofG , Abell , Aladin , Ap/Am , AsiagoSNC , BATSE 4B , BATSE , BATSE , BATSE/GUSBAD , BATTEN , BAX GalClus , BBXRT , BEFS , BMW-HRI , BSC , Be , BeSAX , Bootes , CADC/HST , CDFS1MS , CEDAG , CG , CHANEXTDFS , CHANGALCEN , CHIANTI , CIO , CLASS , CNS3 , COS-B , COS-B , CVs , CIA Red.S .

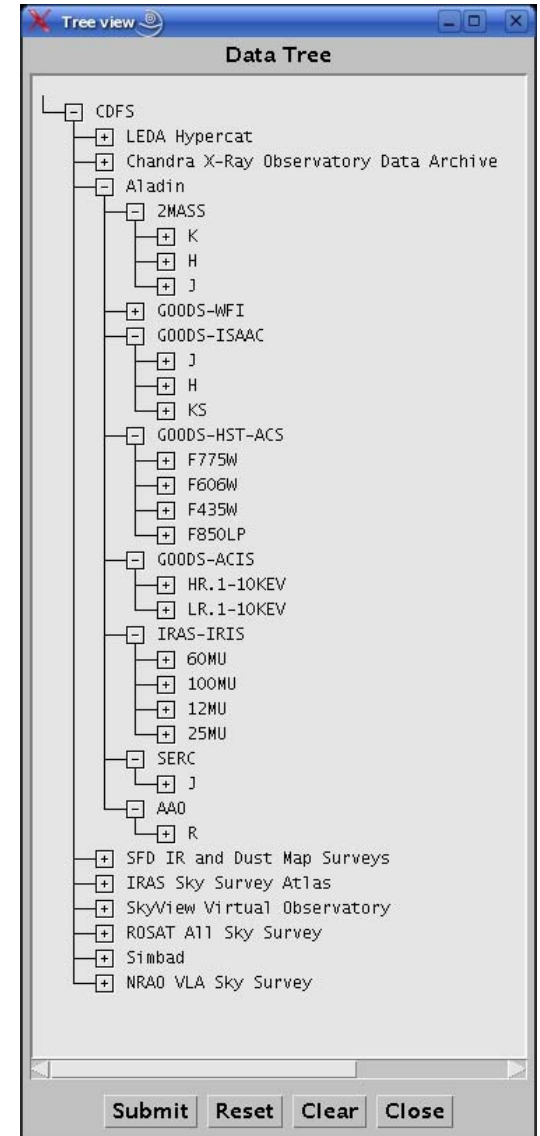
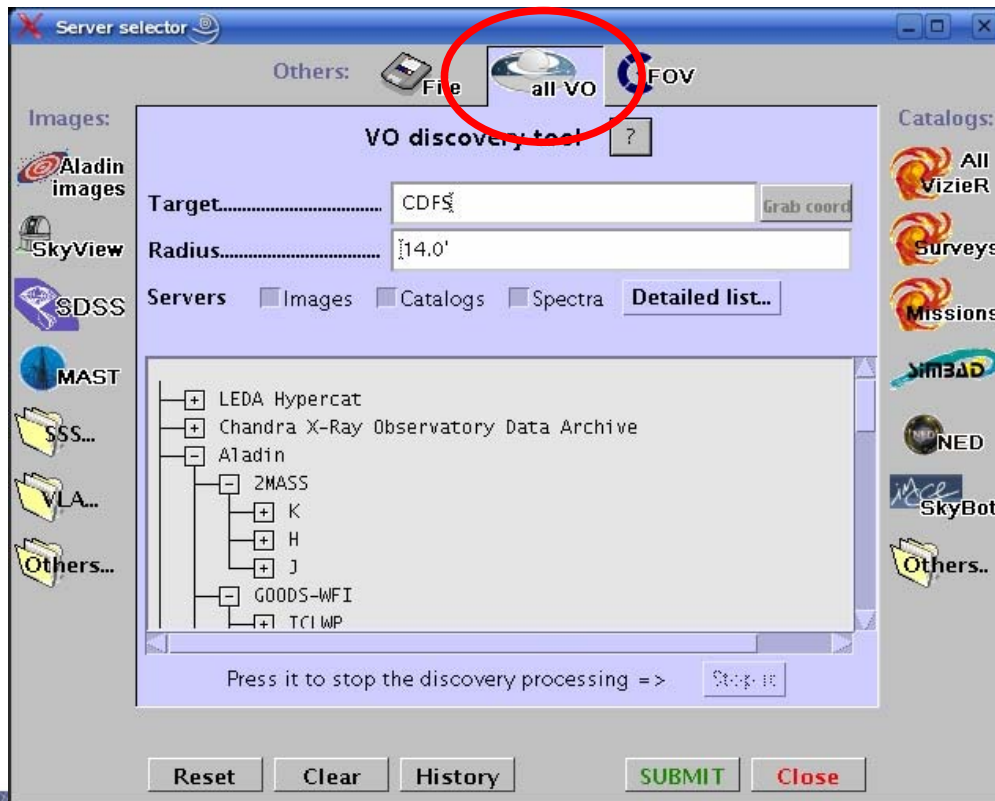
Done



Aladin portail d'accès au VO

registry + autres méthodes d'accès

Bouton 'All VO'



2MASS
ESO-WFI
Chandra
VLT-ISAAC
HST-ACS
DSS
My Data

Data Tree

- GOODS-WFI
 - DEEP2C-FV-PREVIEW 38.1 'x37.3 ' 2000-10-2
 - DEEP2C-FV 8.2 'x8.2 ' 2000-10-26
- GOODS-ACIS
 - ACISHCDFSN000 1.2 'x1.2 ' 1999-10-14
- GOODS-ISAAC
 - GOODS-10 2.5 'x2.5 ' 08/04/2002
 - GOODS-11 2.5 'x2.5 ' 08/04/2002
 - GOODS-14 2.5 'x2.5 ' 08/04/2002
 - GOODS-15 2.5 'x2.5 ' 08/04/2002
 - GOODS-20 2.5 'x2.5 ' 08/04/2002
 - GOODS-16 2.5 'x2.5 ' 08/04/2002
 - GOODS-21 2.5 'x2.5 ' 08/04/2002
 - GOODS-9 2.5 'x2.5 ' 08/04/2002
- GOODS-HST-ACS
 - epoch1
 - epoch2
 - epoch3
 - epoch4
 - epoch5
 - version1.0
 - CDF-SOUTH-SECT32-VERSION1.0
 - CDF-SOUTH-SECT25-VERSION1.0
 - CDF-SOUTH-SECT23-VERSION1.0
 - CDF-SOUTH-SECT21-VERSION1.0
 - CDF-SOUTH-SECT44-VERSION1.0
 - CDF-SOUTH-SECT14-VERSION1.0
 - CDF-SOUTH-SECT42-VERSION1.0
 - CDF-SOUTH-SECT12-VERSION1.0
 - CDF-SOUTH-SECT35-VERSION1.0
 - CDF-SOUTH-SECT33-VERSION1.0
 - CDF-SOUTH-SECT31-VERSION1.0
 - CDF-SOUTH-SECT24-VERSION1.0
 - CDF-SOUTH-SECT22-VERSION1.0
 - CDF-SOUTH-SECT45-VERSION1.0
 - CDF-SOUTH-SECT43-VERSION1.0
 - CDF-SOUTH-SECT13-VERSION1.0
 - CDF-SOUTH-SECT11-VERSION1.0
 - CDF-SOUTH-SECT34-VERSION1.0

Data available at selected point are highlighted in tree

Info Frame

CDF-SOUTH-SECT23-VERSION1.0

Observation_Name	CDF-SOUTH-SECT23-VERSION1.0
ObservingProgram_Name	GOODS-HST-ACS
FilterName	F775W
Size_alpha	4.1'
Size_delta	4.1'
Angular Pixel Size	0.029"
Origin	STSCI
OriginalCoding	FITS
CentralPoint_RA	03:32:38.72
CentralPoint_DEC	-27:48:18.3
DateAndTime	2002-08-01
Position Angle	0.0°

Cutout Target: 03 32 33.50 -27 47 36. Grab

Stick FoV in stack LOAD Close

A.V.O demonstration prototype v1.0

Field: 03:32:25.77 -27:48:07.4 38.08"x37.2"

Field of view outlines are plotted automatically

CDS - ESO - AstroGrid - ST-ECF - UMAN/Jodrell Bank - CNRS/DR01 - VO-India - STScI

Image metadata

Catalogues

→ Manipulation

→ X-match

→ Visualisation

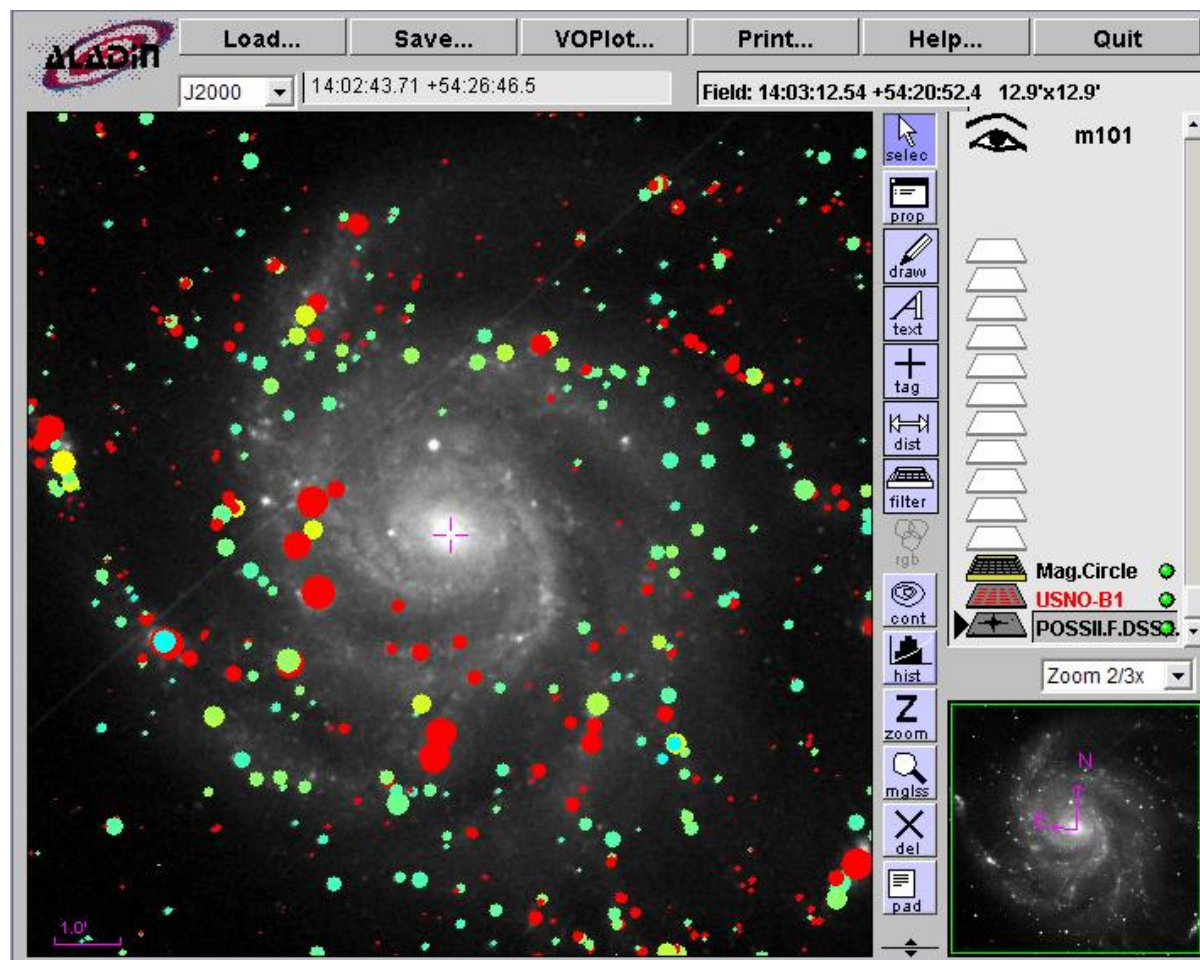


Image Cutout

Fonction proposée
par le SWT du
projet R&D AVO

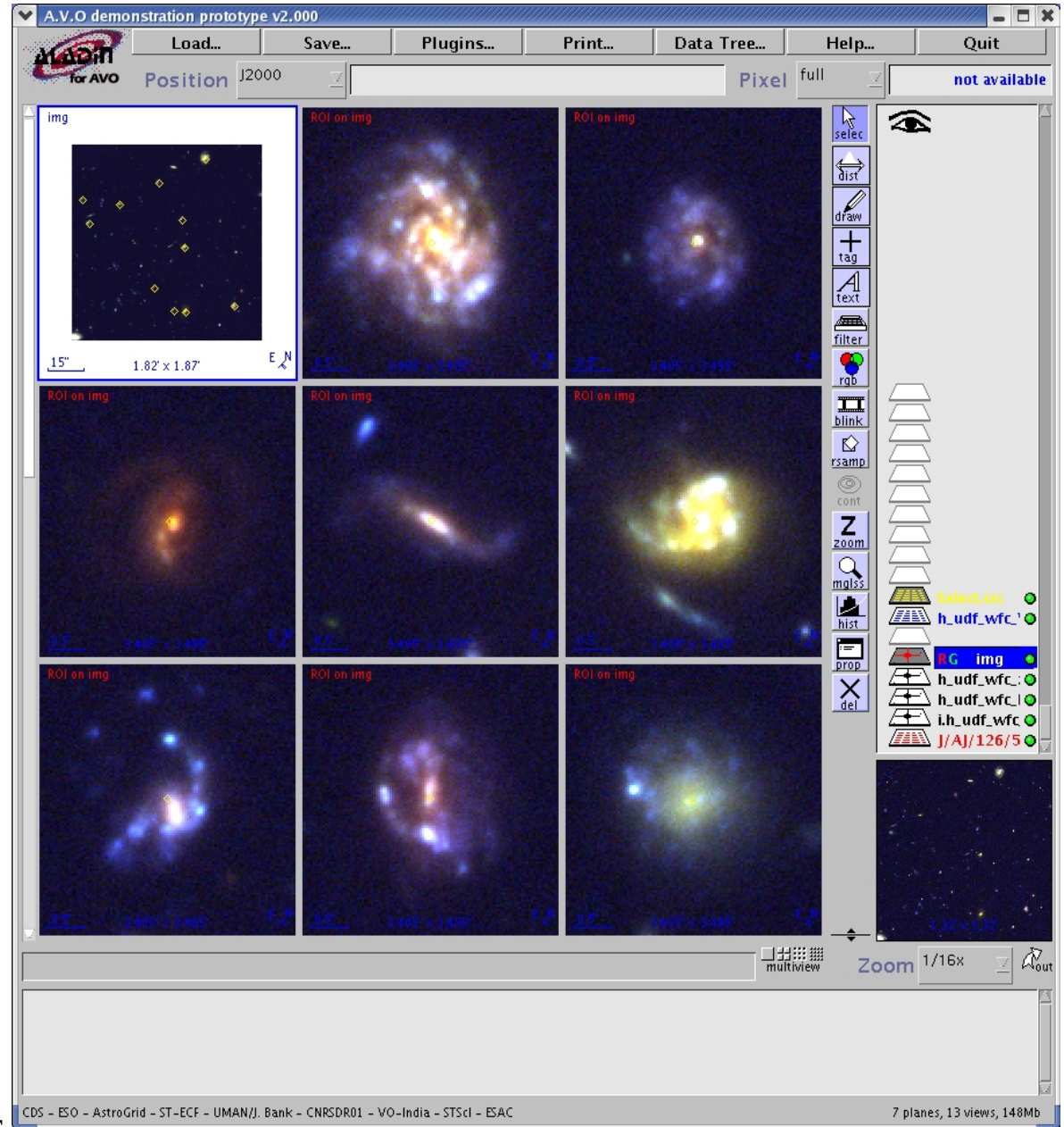
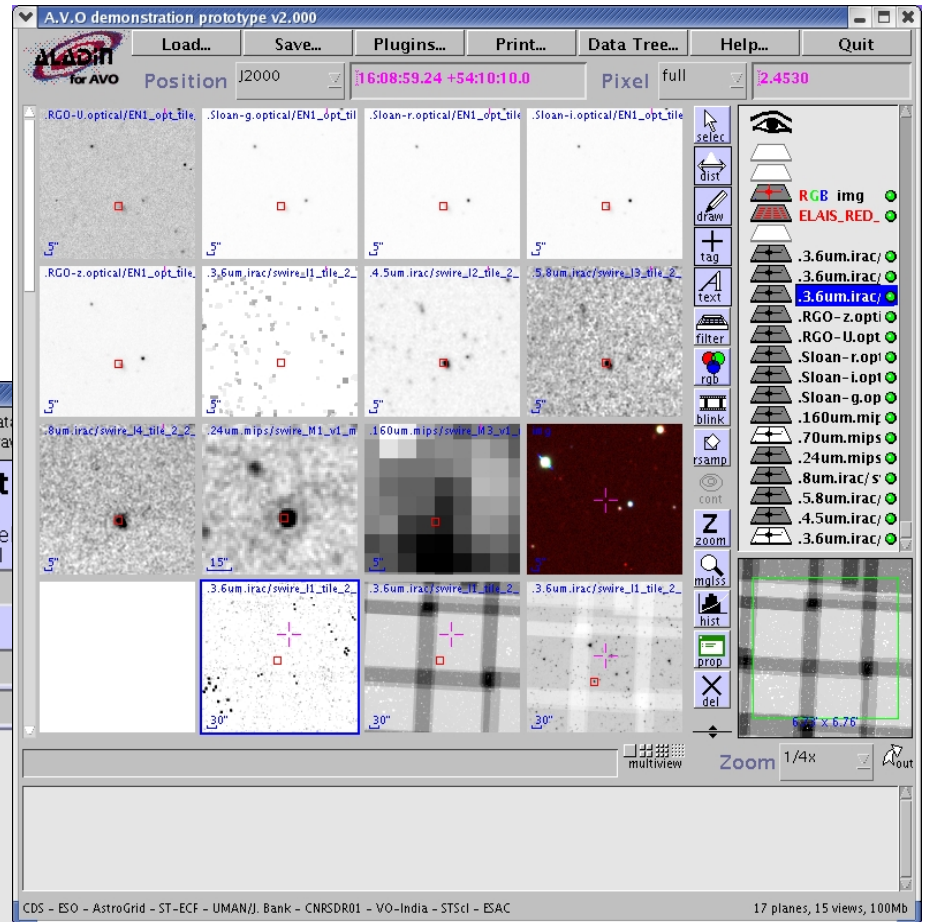


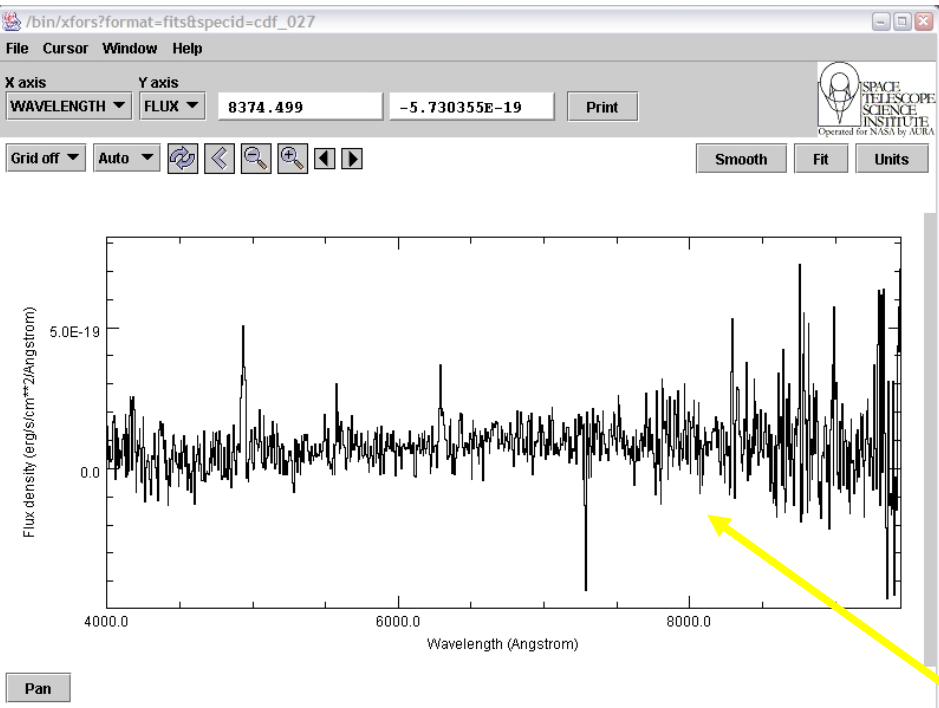
Image Cutout Services

Générés par des services distants



e.g. SWIRE cutout service

nova, AS OV, SF2A, Paris, 29/06/2006



Pan

<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033214-274825
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033214-274825
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033214-275124
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033214-275257
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033214-275258
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033215-274633
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-275113
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-275228
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-275234
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-275247
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-274721
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-274807
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-274810
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-274811
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-274823
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-274838
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-274844
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-275024
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033218-274743
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033216-275238
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033216-275241
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-274122
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033217-274602
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033218-274619
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033218-274619
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033218-274705
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033218-274705
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033218-274705
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033218-274718
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033218-274743
<input type="checkbox"/>	FORS2	1d spectrum	GOODS	J033218-274825

Submit Reset Clear Close

A.V.O demonstration prototype v1.0

Load... Save... Plugins... Print... Help... Quit

J2000 03:32:39.67 -27:48:50 Field: 03:32:40.38 -27:48:49.2 1.03'x1.03'

5.0001"

Spectrum FORS2 1d spectrum GOODS J033239-274850 53.1652972222222 -27.8140630555556

Spectrum FORS2 1d spectrum GOODS J033239-274851 53.1648288888889 -27.8143688888889

Spectrum sp / / 1d spectrum GOODS J033239-274851 53.1648288888889 -27.8143688888889

Spectrum FORS2 1d spectrum CDF 027 53.1652916666667 -27.8140277777778

CDS - ESO - AstroGrid - ST-ECF - UMAN/Jodrell Bank - CNRS/DR01 - VO-India - STScI

Simple Spectrum Access Services

Image / Spectrum / Catalog interoperability

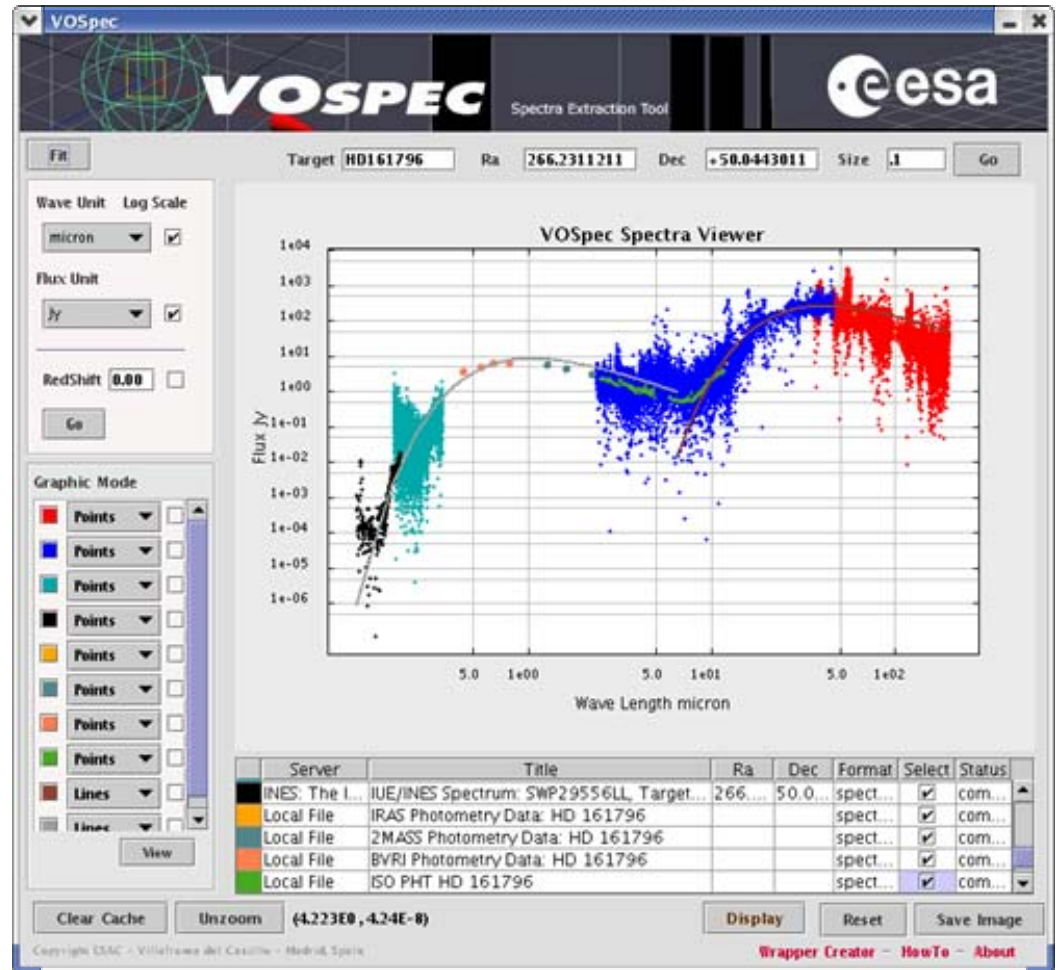
STScI Specview & AVO prototype

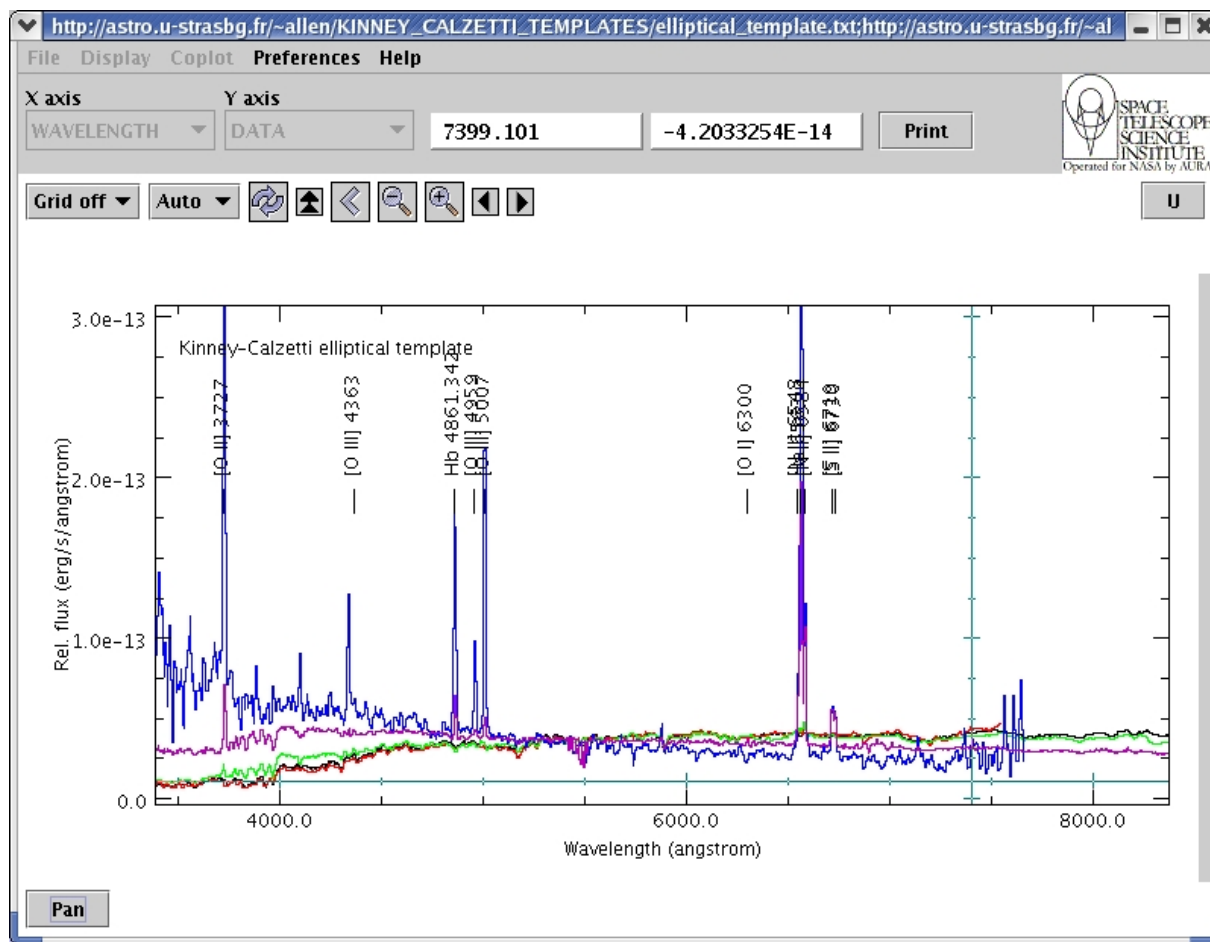


Portail d'accès aux spectres

- Serveurs SSA
- Registry
- Units/SED

Des standards
émergents





Listes de raies intégrées dans l'outil



Listes de raies dans des services

SLAP Viewer Copyright ESAC, Spain

Server Selector

SLAP Services

- IASD - Simple Line Access Data Server
 - http://esavo02.esac.esa.int/slap/jsp/slapBeta.jsp?

Select

Range of Search (µm):

Wavelength Start: 6.119 Wavelength End: 43.5376

Reset

Slap Services Output

Wavelength	Id	Transition	SourceType	ObsFlux	Intensity	Noise
18.72200	[SIII]	3P1-3P2	L	3.149999...	null	100.000
21.84100	[ArIII]	3P1-3P0	L	6.999999...	null	null
28.23200	H2	0-0 S(0)	L	7.799999...	null	null
33.49800	[SIII]	3P0-3P1	L	8.029999...	null	85.000
36.03100	[NeIII]	3P1-3P0	L	2.679999...	null	15.000

Close

VOSpec Spectra Extraction Tool

Target: 326.44+00.91 Ra: 235.5716667 Dec: -53.9755556 Size: .1 Go

Simple Line Access

Wave Unit: micron Log Scale:

Flux Unit: Jy RedShift: 0.00

Go

Graphic Mode

- Points
- Points

VOSpec Spectra Viewer

Flux Jy

Wave Length micron

Server	Title	Ra	Dec	Format	Select	Status
Infrared Spa...	ISO LWS01 ...	235.571265	-53.97539	spectrum/fits	<input checked="" type="checkbox"/>	complete
Infrared Spa...	ISO SWS01 ...	235.571265	-53.97539	spectrum/fits	<input checked="" type="checkbox"/>	complete

Clear Cache Unzoom (1,8778E1, 3,459E1) Display Res... Save Image

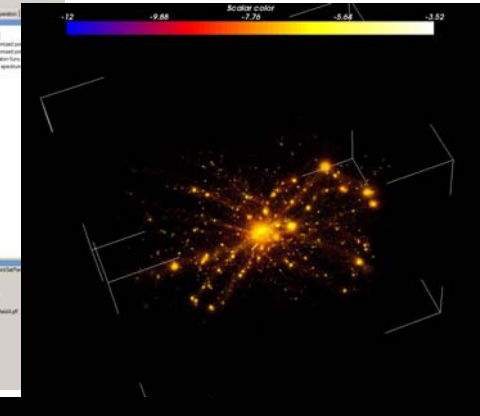
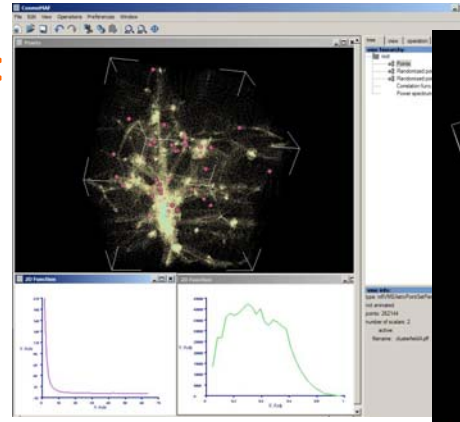
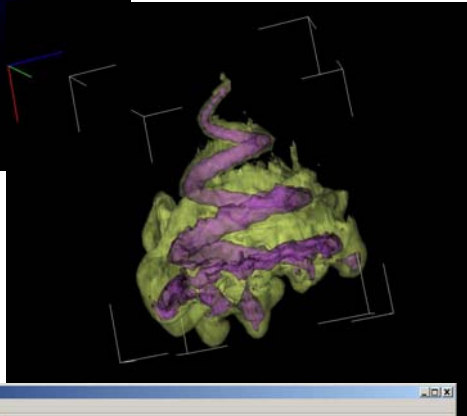
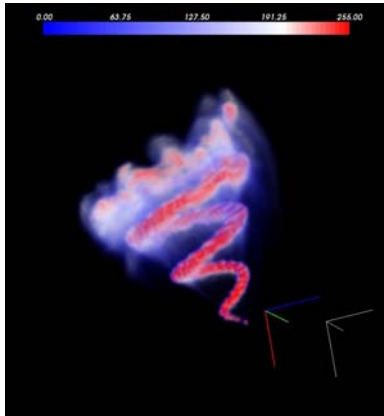
Copyright ESAC - Villafranca del Castillo - Madrid, Spain Wrapper Creator HowTo About



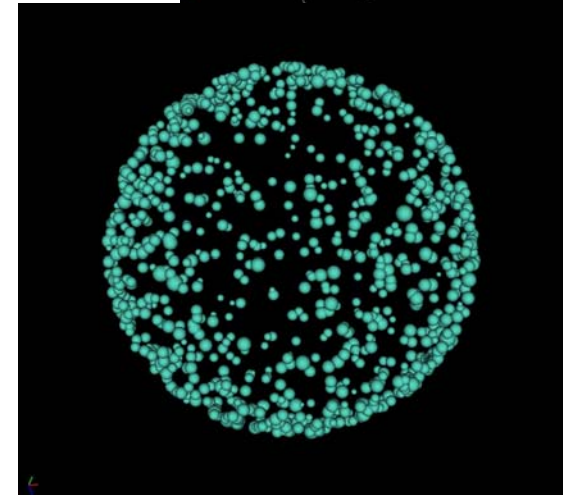
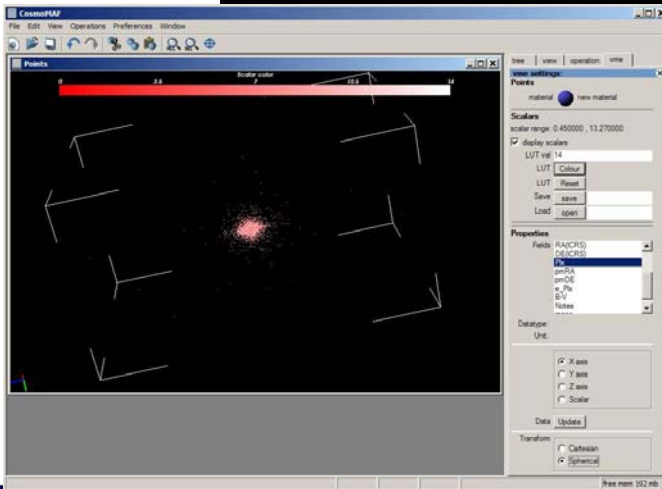
VisIVO : Visualization tools

Grid based data:

-
-

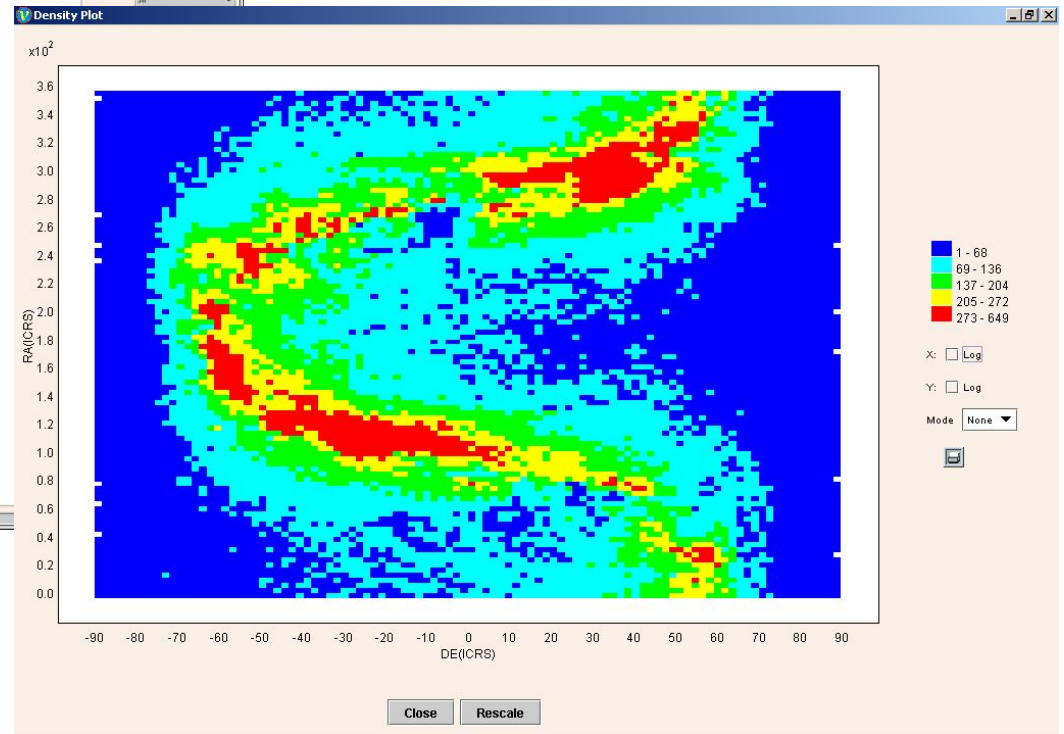
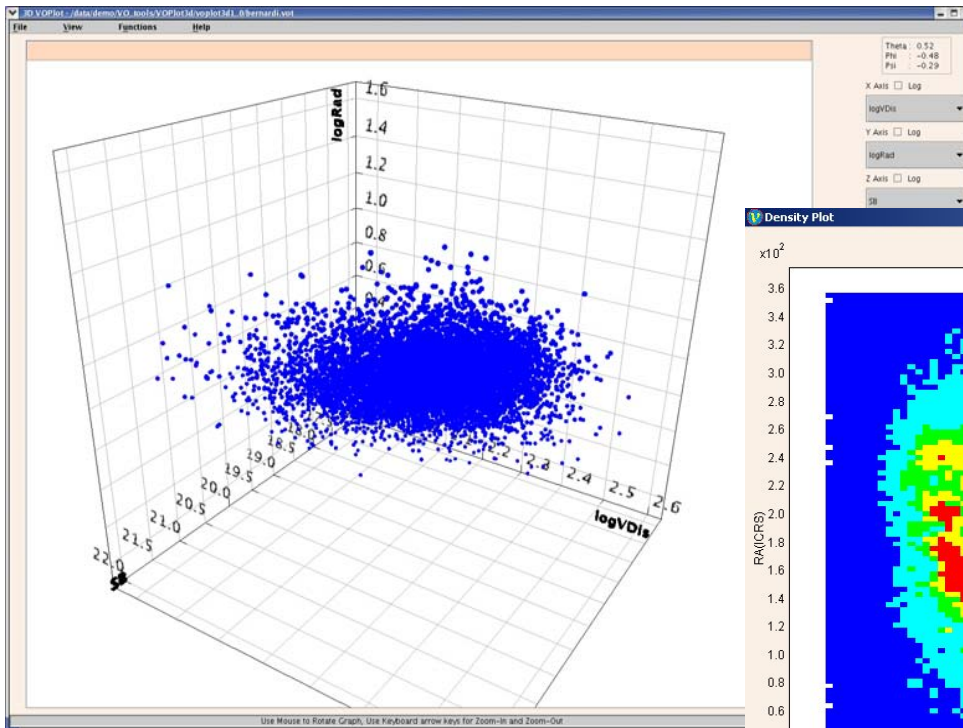


Point like data:



Données tabulaires - outils interactifs

- interopérabilité



VOPlot



Starlink TOPCAT

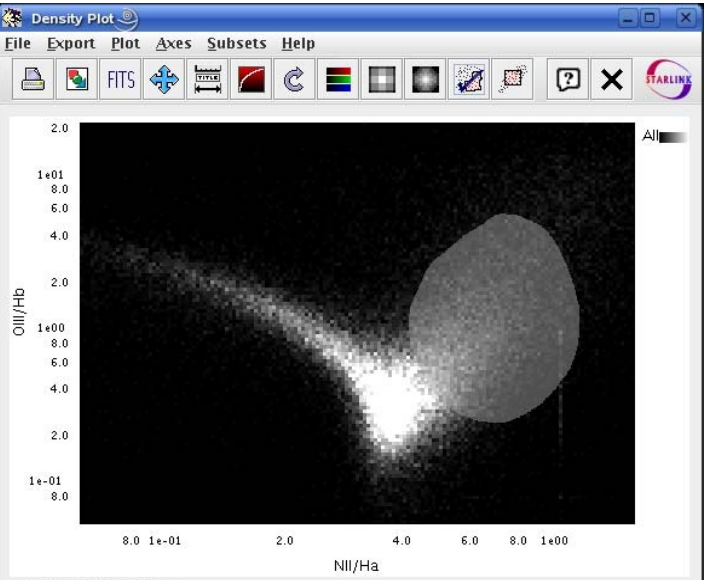
File Views Graphics Joins Windows Help

Table List:

- 1: c_strfile_3.xml
- 2: strfile_3.xml

Current Table Properties:

Label: strfile_3.xml
 Location: /data1/allen/2/SHOCKS/SHOCKS_LIBRARY/IDL/OBSE
 Name: /data1/allen/2/SHOCKS/SHOCKS_LIBRARY/IDL/OBSE
 Rows: 52624
 Columns: 7
 Sort Order: ↑



Cut Percentile Levels

0.1 1 10 50 50 90 99 99.9
 0 - 34

Main

Data: 2: strfile_3.xml

X Axis: NII/Ha Log Flip

Y Axis: OIII/Hb Log Flip

Row Subsets: All

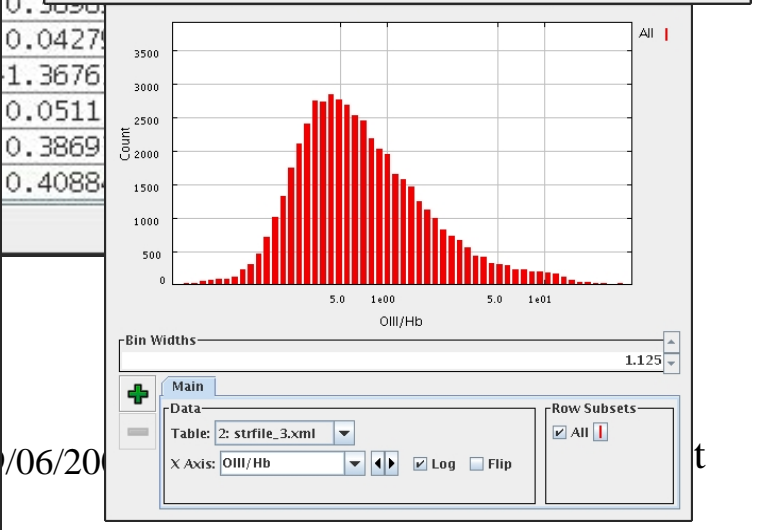
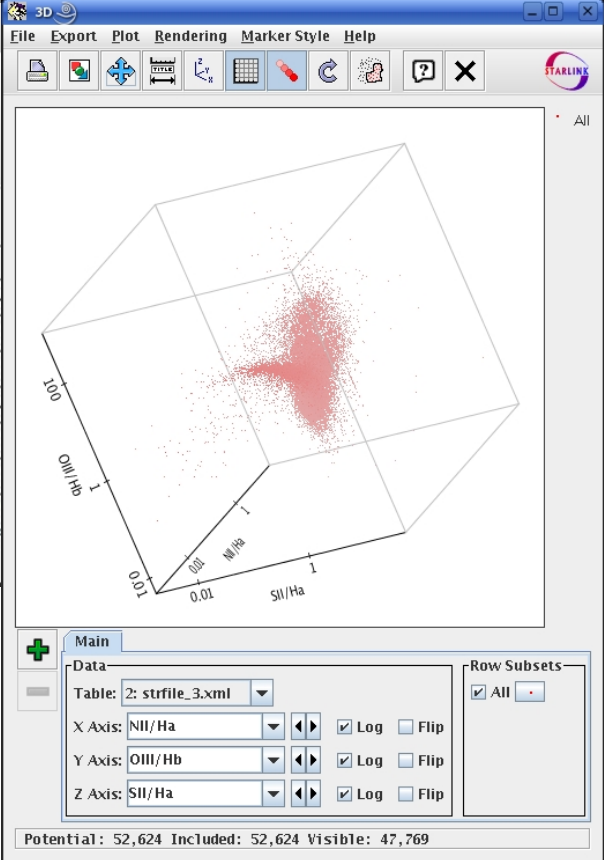
Potential: 52,624 Included: 49,946 Visible: 48,942 Position: (.49, 23)

TOPCAT(2): Table Browser

File Subsets Help

Table Browser for 2: strfile_3.xml

	NII/Ha	SII/Ha
1	0.424683	0.331496
2	0.344995	0.335772
3	0.097918	0.258027
4	0.461305	0.240552
5	0.157344	0.325245
6	0.280227	0.540685
7	0.390968	0.313034



Topcat

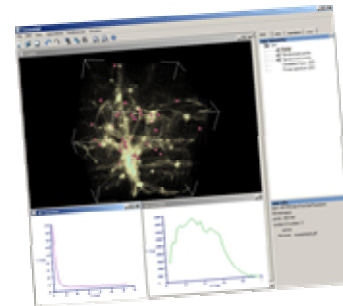
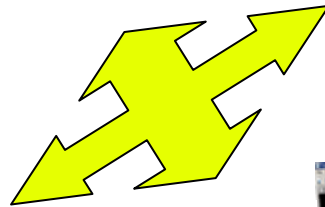
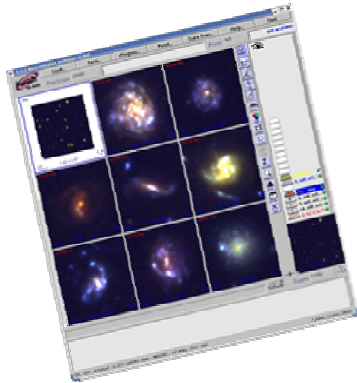
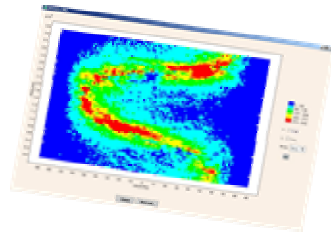


/06/20

t

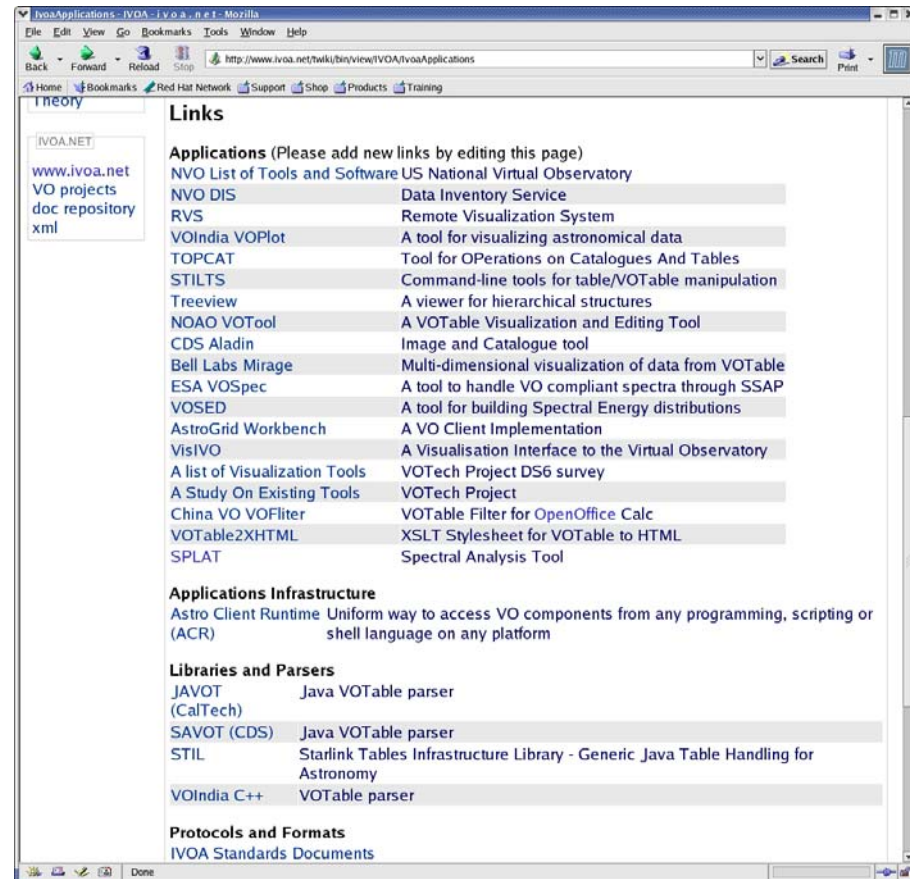
Interoperabilité entre les outils

VOTech *Plastic*



IVOA Application Interest Group

Liste à compléter



The screenshot shows a Mozilla browser window displaying the IVOA Applications page. The address bar shows the URL: <http://www.ivoa.net/twiki/view/IVOA/IvoaApplications>. The page content is organized into several sections:

- Links**
 - Applications** (Please add new links by editing this page)
 - NVO List of Tools and Software US National Virtual Observatory
 - NVO DIS Data Inventory Service
 - RVS Remote Visualization System
 - VOIndia VOPlot A tool for visualizing astronomical data
 - TOPCAT Tool for OPERations on Catalogues And Tables
 - STILTS Command-line tools for table/VOTable manipulation
 - Treeview A viewer for hierarchical structures
 - NOAO VOTool A VOTable Visualization and Editing Tool
 - CDS Aladin Image and Catalogue tool
 - Bell Labs Mirage Multi-dimensional visualization of data from VOTable
 - ESA VOSpec A tool to handle VO compliant spectra through SSAP
 - VOSED A tool for building Spectral Energy distributions
 - AstroGrid Workbench A VO Client Implementation
 - VisIVO A Visualisation Interface to the Virtual Observatory
 - A list of Visualization Tools VOTech Project DS6 survey
 - A Study On Existing Tools VOTech Project
 - China VO VOFiler VOTable Filter for OpenOffice Calc
 - VOTable2XHTML XSLT Stylesheet for VOTable to HTML
 - SPLAT Spectral Analysis Tool
 - Applications Infrastructure**
 - Astro Client Runtime Uniform way to access VO components from any programming, scripting or shell language on any platform
 - Libraries and Parsers**
 - JAVOT Java VOTable parser (CalTech)
 - SAVOT (CDS) Java VOTable parser
 - STIL Starlink Tables Infrastructure Library - Generic Java Table Handling for Astronomy
 - VOIndia C++ VOTable parser
 - Protocols and Formats**
 - IVOA Standards Documents



Projets à l'échelle IVOA

- Cross-identification à très grande échelle (incertitudes, PSF, ...)
- Construction de SEDs
- Construction de Workflows



L'apport national

- Une grande variété d'outils et de services, certains opérationnels
- Des briques du système global, dans les domaines d'expertise des équipes françaises
- Partage des connaissances dans la communauté
- Mise à jour du recensement en cours d'analyse – 35 réponses, à peu près tous les laboratoires

Réponses des équipes transmises par les
Directeurs de laboratoires



Bilan du recensement (1)

- Archives de données, de traitement et d'analyse, services à valeur ajoutée

Certains encore pour des distributions aux équipes participantes

Certaines actions sont le fait de plusieurs laboratoires, d'autres laboratoires mutualisent leurs actions

CDPP/CIME-G, BASS 2000, COROT, Planck HFI, GIRAFFE, TERAPIX, FUSE, XMM SSC, NRT, CAI, EROS, (IRAM?)...

actions mutualisées au sein d'un laboratoire: IAS – IDOC: MEDOC et al; ENVOL/LAM

Paris Virtual Observatory Data Centre



Bilan du recensement (2)

- Services à valeur ajoutée, outils

CDS, IMCCE – un tournant

Autour des données spectrales

POLLUX, Bases de données de physique atomique et moléculaires, CASSIS, Services “transfert radiatif”, et aussi des bases de données instruments



Bilan du recensement (3)

- Théorie

Fort intérêt pour le développement de services théoriques, différents types de modèles

Modèle de Besançon

HORIZON

‘Portail numérique de l’Observatoire de Paris’

Modèles du LUTH: PDR, ...



Bilan du recensement (4)

- Services disciplinaires

Géodésie, Planétologie (mais en ordre dispersé: BDAP, Comètes)

- Services spécifiques

Hyperleđa, Etoiles Be, Etoiles doubles, Petits corps du Système Solaire, amas de galaxies
CFHTLS

- Méthodes et standards

Modèles de données, interface générique
ajustement modélisation



Utilisation pour l'Enseignement

- HOU
- Actions dans différents établissements, volonté de partage
- Accès à des supports d'enseignement via une page dédiée sur le serveur AS OV



http://amdpo.obspm.fr/databases/index.php?page=basecol - Microsoft Internet Explorer

Fichier Edition Affichage Favoris Outils ?

Précédente Rechercher Favoris

Adresse http://amdpo.obspm.fr/databases/index.php?page=basecol

[LUTH](#) | [LERMA](#) | [GEPI](#) | [LESIA](#)



- Home
- Astro-Com
- Basecol
- Molat
- TIP/TOPbase

[Webmaster](#)

BASECOL : Ro-Vibrational Collisional Database

This database is devoted to collisional ro-vibrational excitation of molecules by H, He and H₂

Terminé Internet

CASSIS - analysis - high resolution - astrophysical

Fichier Edition Affichage Favoris Outils ?

Précédente Rechercher

Adresse http://www.cesr.fr/~walters/web_cassis/index.htm

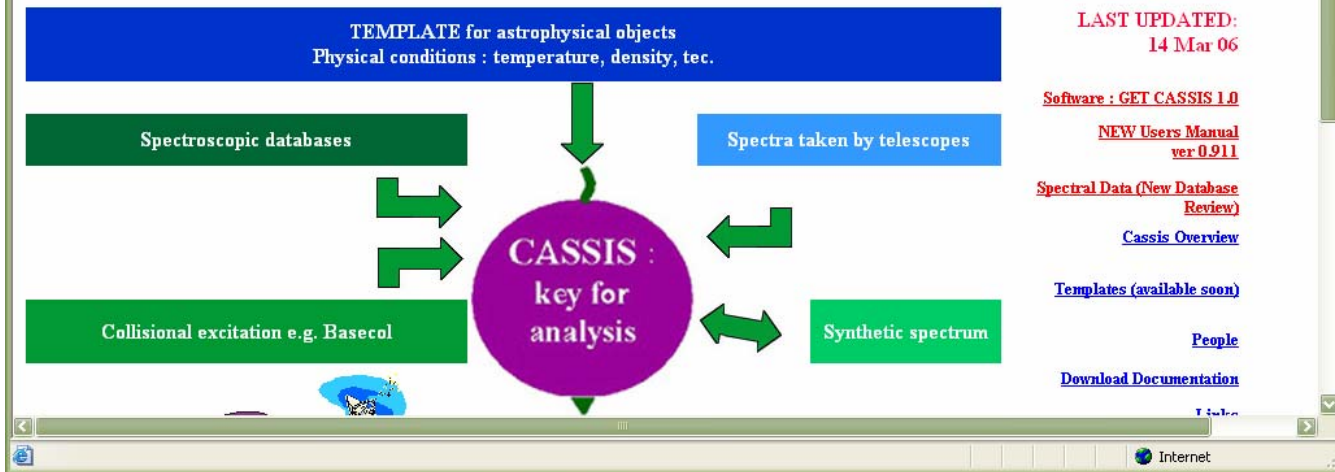


CASSIS

Web-based

NEWS: First

Various data-bases regroup the latest spectral and collisional data of different types of astrophysical object. Our idea is to create a new region to be studied. This CASSIS interface will also allow comparison of measured and calculated spectra and the adjustment of parameters for best correlation.

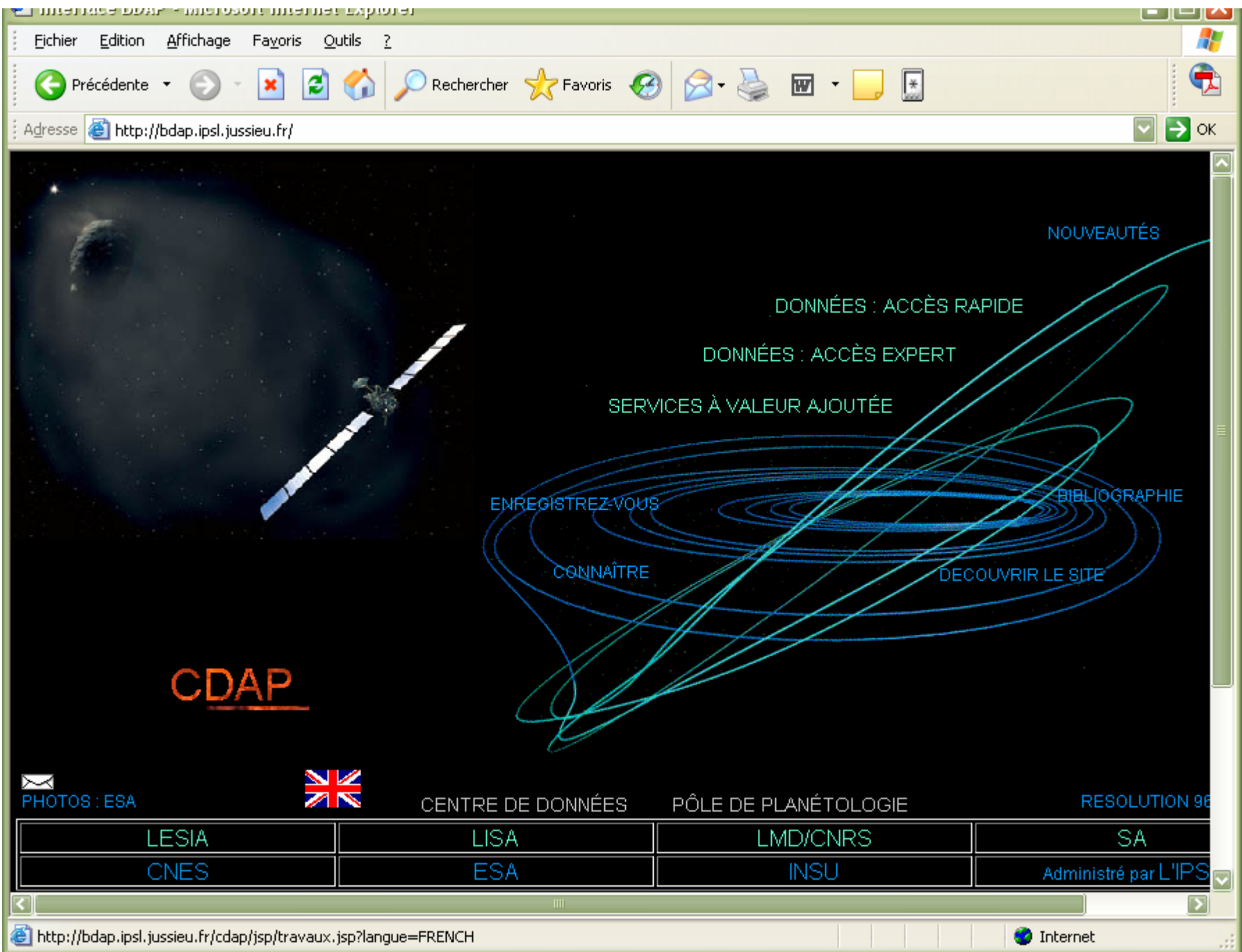


Internet Explorer - Microsoft Internet Explorer

Fichier Edition Affichage Favoris Outils ?

Précédente Revenir à l'accueil Rechercher Favoris

Adresse <http://bdap.ipsl.jussieu.fr/> OK



NOUVEAUTÉS

DONNÉES : ACCÈS RAPIDE

DONNÉES : ACCÈS EXPERT

SERVICES À VALEUR AJOUTÉE

ENREGISTREZ-VOUS


BIBLIOGRAPHIE

CONNAÎTRE

DECOUVRIR LE SITE

CDAP

PHOTOS : ESA



CENTRE DE DONNÉES

PÔLE DE PLANÉTOLOGIE

RESOLUTION 96

LESIA	LISA	LMD/CNRS	SA
CNES	ESA	INSU	Administré par L'IPSL


<http://bdap.ipsl.jussieu.fr/cdap/jsp/travaux.jsp?langue=FRENCH> Internet

Model of stellar population synthesis of the Galaxy - Microsoft Internet Explorer

Eichier Edition Affichage Favoris Outils ?

Précédente Recherche Favoris

Adresse <http://bison.obs-besancon.fr/modele/> OK



Model forms

Description

References

Disclaimer

Changes log

*last modification: Jun 20, 2005,
11:56 CEST*

modele@obs-besancon.fr

Model of stellar population synthesis of the Galaxy

This version of the Model of stellar population synthesis of the Galaxy is fully described in the following publication:
A. C. Robin, C. Reylé, S. Derrière and S. Picaud. [A synthetic view on structure and evolution of the Milky Way](#), 2003, *Astron. Astrophys.*, 409:523 **ADS** (*erratum*: 2004, *Astron. Astrophys.*, 416:157)

On December 6, 2004, a new version was enabled that allows to use the CFHT-Megacam photometric system. More informations are available [here](#).

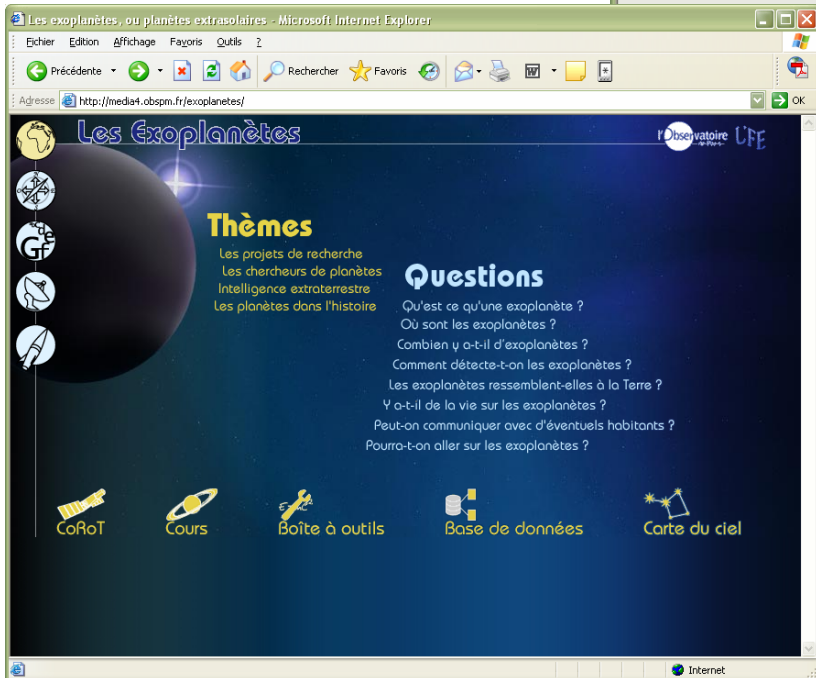
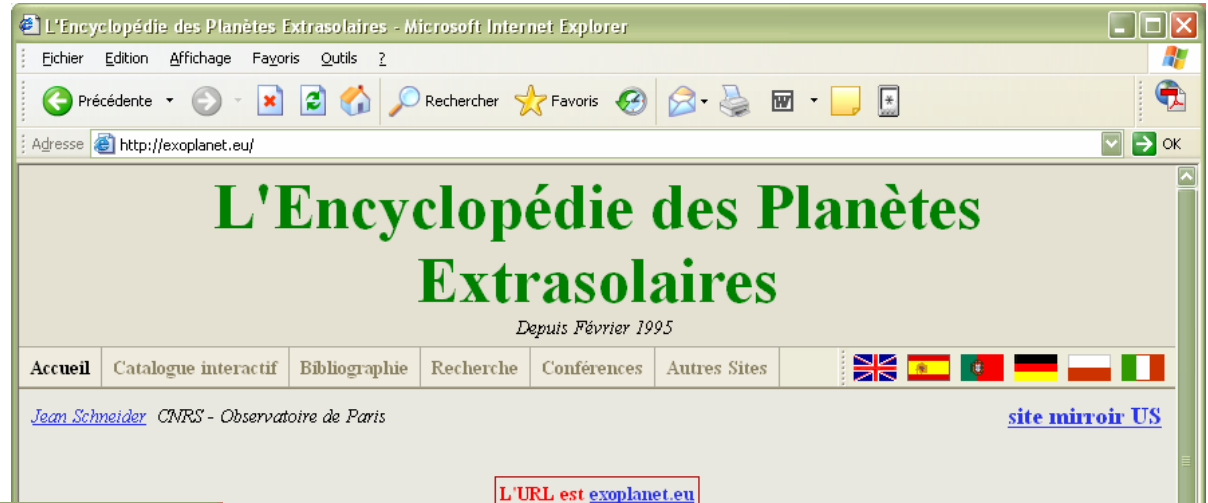
Photometric system:

Form of the model simulation:

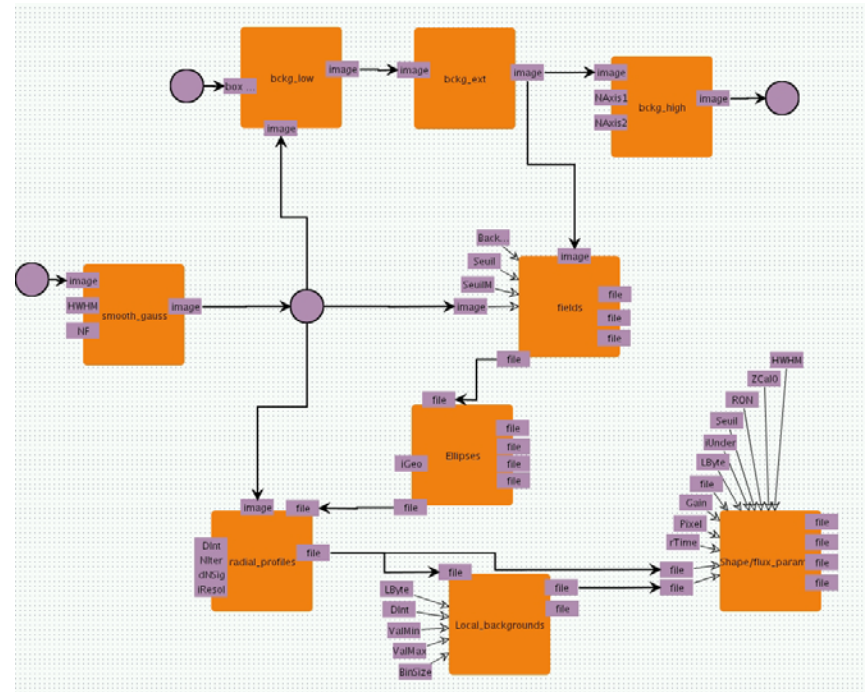
Kinematics:

Internet





- Un projet original
Conserver les expertises d'équipe en traitement d'images
- Construction graphique de procédures à partir de modules (Fortran, Matlab)
- Certaines procédures requièrent l'accès à la Grille de calcul
- Vers un nouveau type de services (projet MDA, ACI MD) (OCA, CDS, LSIIT)



ALADIN

Load... Save... Tools... Print... Help... Quit

Position J2000 03:22:21.94 +12:55:30.2 Pixel full unknown

ESO DSS2-blue~1

1995 WL4

Jungmann

16.8' x 16.8'

19.96' x 19.99'

Solar 50.573
ESO DSS2-li

- ESO DSS2-blue~1 - provided by The Digitized Sky Survey from ESO (Garching)

12797	1995 WL4	50.6176318599	12.9620538981	18.143	
40441	Jungmann	50.515470357	12.7983030994	18.129	
163973	2001 UT99	50.4591464049	12.8587799103	20.247	
208529	2002 VV28	50.5530149806	12.8468041369	19.307	

©1999-2005 ULP/CNRS - Centre de Données astronomiques de Strasbourg

2 planes, 1 view, 2Mb

Service
SkyBot
de l'IMCCE

+

Aladin (CDS)

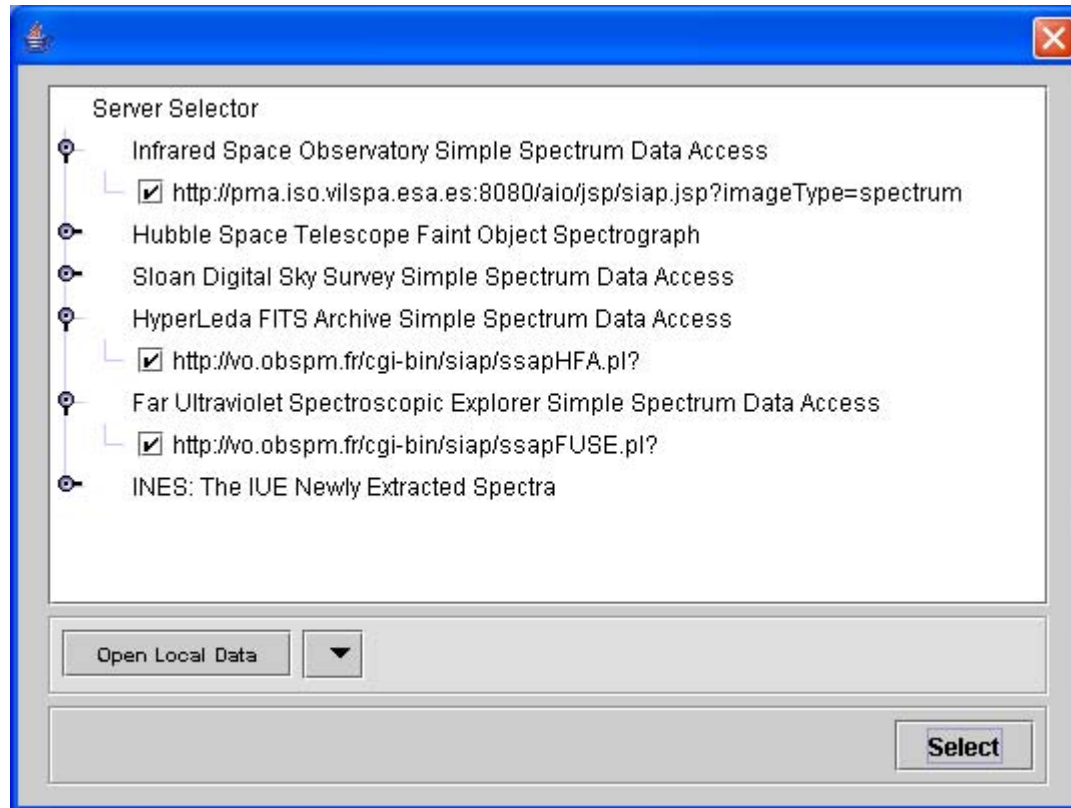
+

Standard du
VO
(VOTable)

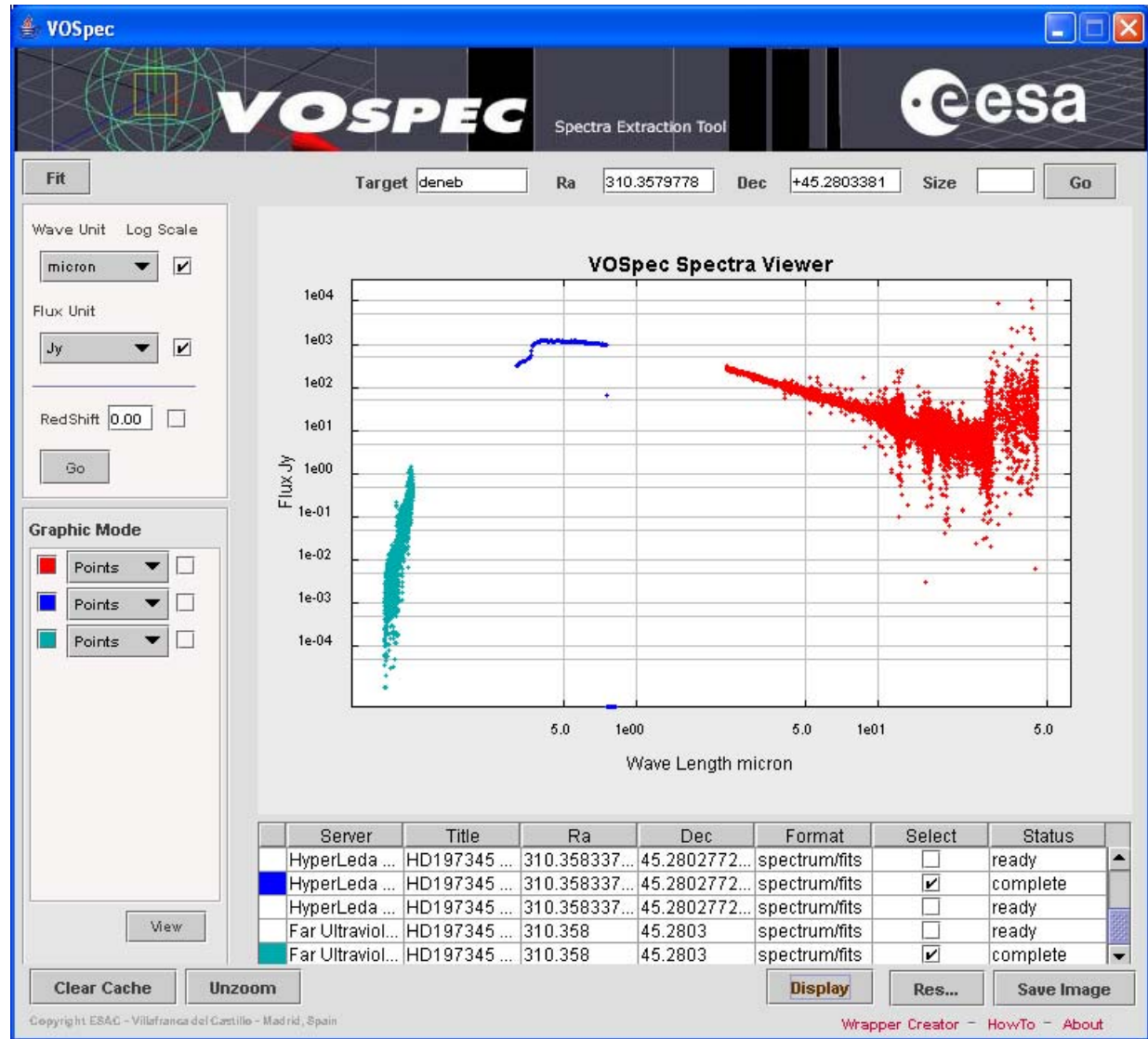


Accès VO à des archives spectrales

Hyperleda
Fuse



Collaboration
 initiée à Pune
 IAP
 Obs. Paris
 Obs. Lyon
 ESAC, Espagne



F. Genova, AS OV, SF2A, Paris, 29/06/2006

Conclusion

- Des services opérationnels et de nombreuses ouvertures de services prévues dans les mois qui viennent
- Information de la communauté sur la disponibilité des services
 - Pages AS OV
 - Via les Programmes concernés
 - Autres??

