



Char schema and STC

F.Bonnarel

And characterization subgroup



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Moscow F.Bonnarel (CDS)





Char and STC

- While do we need both , one may say:
 - : why do we need char, STC does everything
 - Why does char reuse STC , it's too complex
- Same feature may have different semantics, play different role:
 - a position is some realisation of a Space and Time coordinate of STC,
 - while it is one of several properties for an Observation (its center, or its corners, etc ...)
 - Eg, Char reuses several times CoordArea with different meanings: Bounds or Support



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Altova XMLSpy - [characterisation.0.95.xsd *]

File Edit Project XML DTD/Schema Schema design XSL/XQuery Authentic Convert View Browser

WSDL SOAP Tools Window Help

cha.coord 1..∞

stc:Position2D 2-D Position coordinate

stc:double2Type

stc:Value2 double vector:

C1

C2

CError2 0..2

stc:Error2 0..2

stc:Error2Matrix 0..2

stc:Error2Radius 0..2

CResolution2 0..2

LocationType

Text Grid Schema/WSDL Authentic Browser

characterisation.0.95.xsd stc-v1.30.xsd

XMLSpy v2005 rel. 3 U Registered to bonnarel (CDS) ©1998-2005 Altova GmbH Ln 85, Col 60 CAP. NUM SCRL

démarrer Moscou XMLSpy2005 XMLSpy2005 XMLSpy2005 Microsoft Pow... Altova XMLSp... FR 05:43



Reuse of char by STC: lower level « elements »

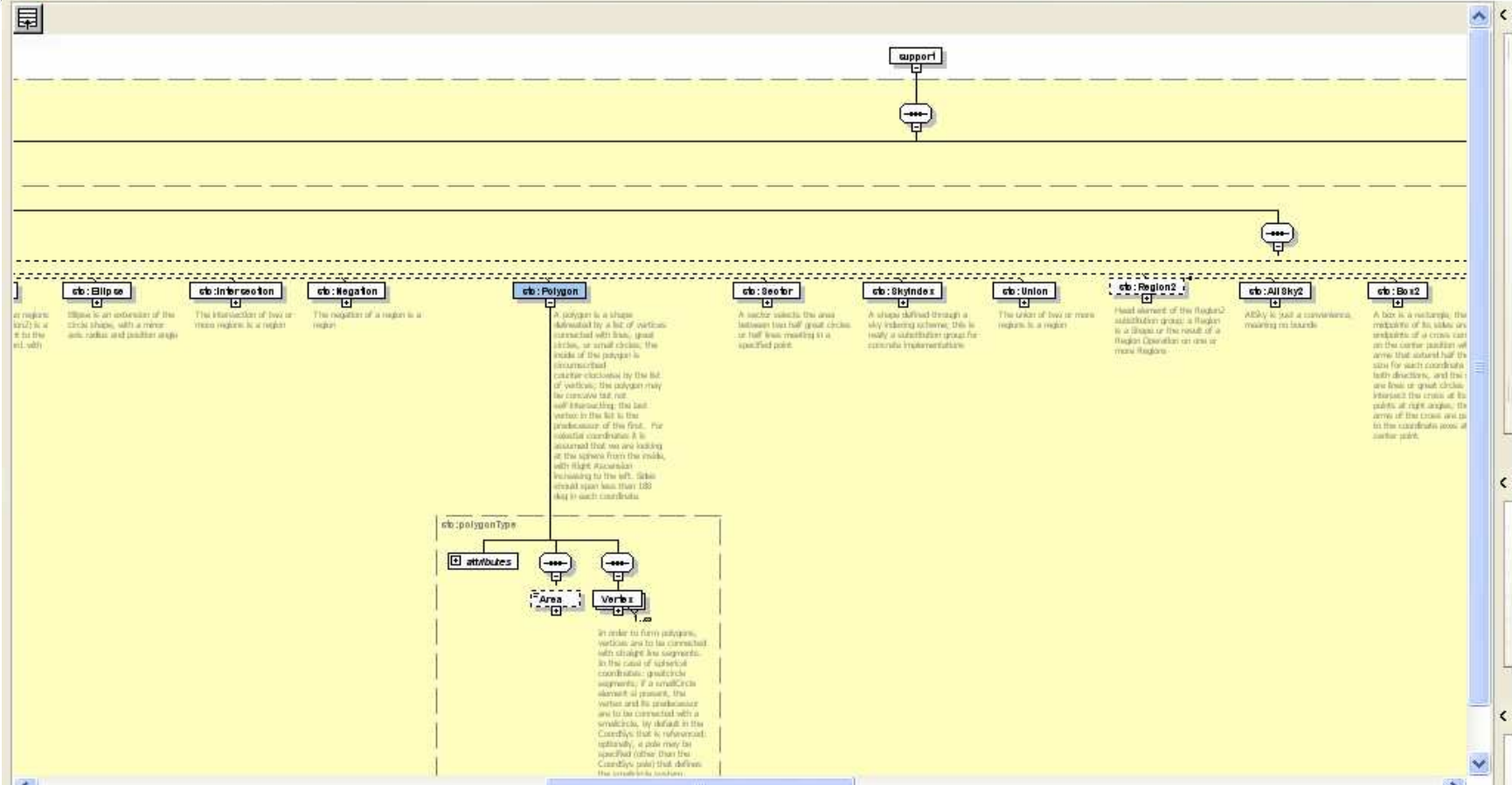
```
Mozilla Firefox
Eichier  Edition  Affichage  Aller à  Marque-pages  Outils  ?
Démarrage  Dernières nouvelles  Mail :: Bienvenue sur ...

- <location>
  - <coord coordsystem_id="TT-ICRS-WAVELENGTH-TOPO">
    - <Position2D>
      <Name1>RA</Name1>
      <Name2>Dec</Name2>
      - <Value2>
        - <C1>
          190.37379
        </C1>
        - <C2>
          11.366944
        </C2>
      </Value2>
    </Position2D>
  </coord>
</location>
- <bounds>
  - <limits>
    - <LoLimit2 Vec>
      - <C1>
        190.37157
      </C1>
      - <C2>
        11.364722
      </C2>
    </LoLimit2 Vec>
    - <HiLimit2 Vec>
      - <C1>
        190.37601
      </C1>
      - <C2>
        11.369167
      </C2>
    </HiLimit2 Vec>
  </limits>
</bounds>

```

Terminé

démarrer 4 Explorateur Wind... Microsoft PowerPoint... Altova XMLSpy - [cha... Mozilla Firefox FR 05:57



Validation error in another file:
 "C:\Documents and Settings\Administrateur\Bureau\Moscou\stc-v1.30.xsd"
 Revalidate

Text Grid Schema/WSDL Authentic Browser



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Reuse of char by STC: lower level « elements »

```
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      - <C2>
        11.364722
      </C2>
    </LoLimit2 Vec>
    - <HiLimit2 Vec>
      - <C1>
        190.37601
      </C1>
      - <C2>
        11.369167
      </C2>
    </HiLimit2 Vec>
  </limits>
</bounds>

```

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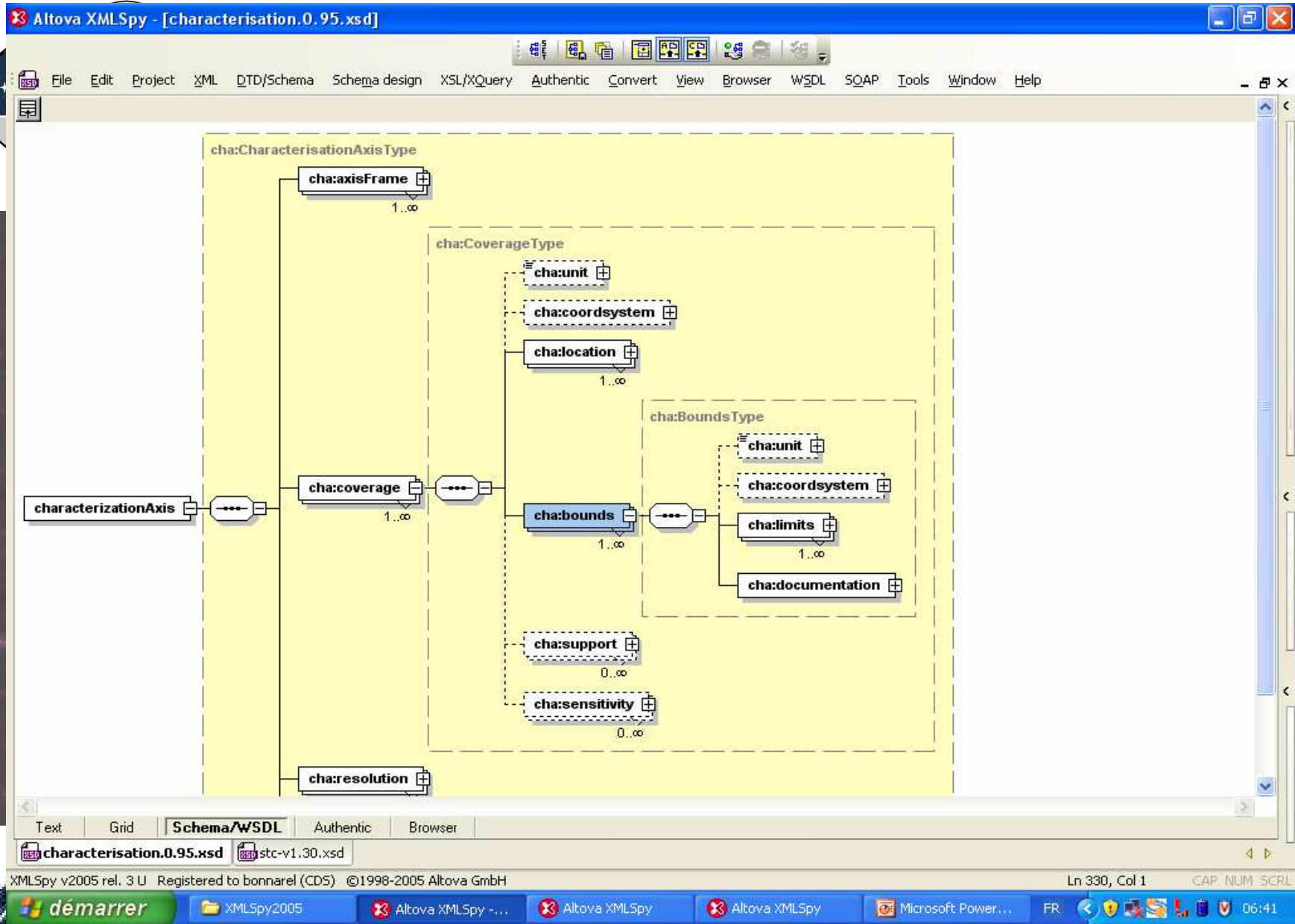
Char and STC

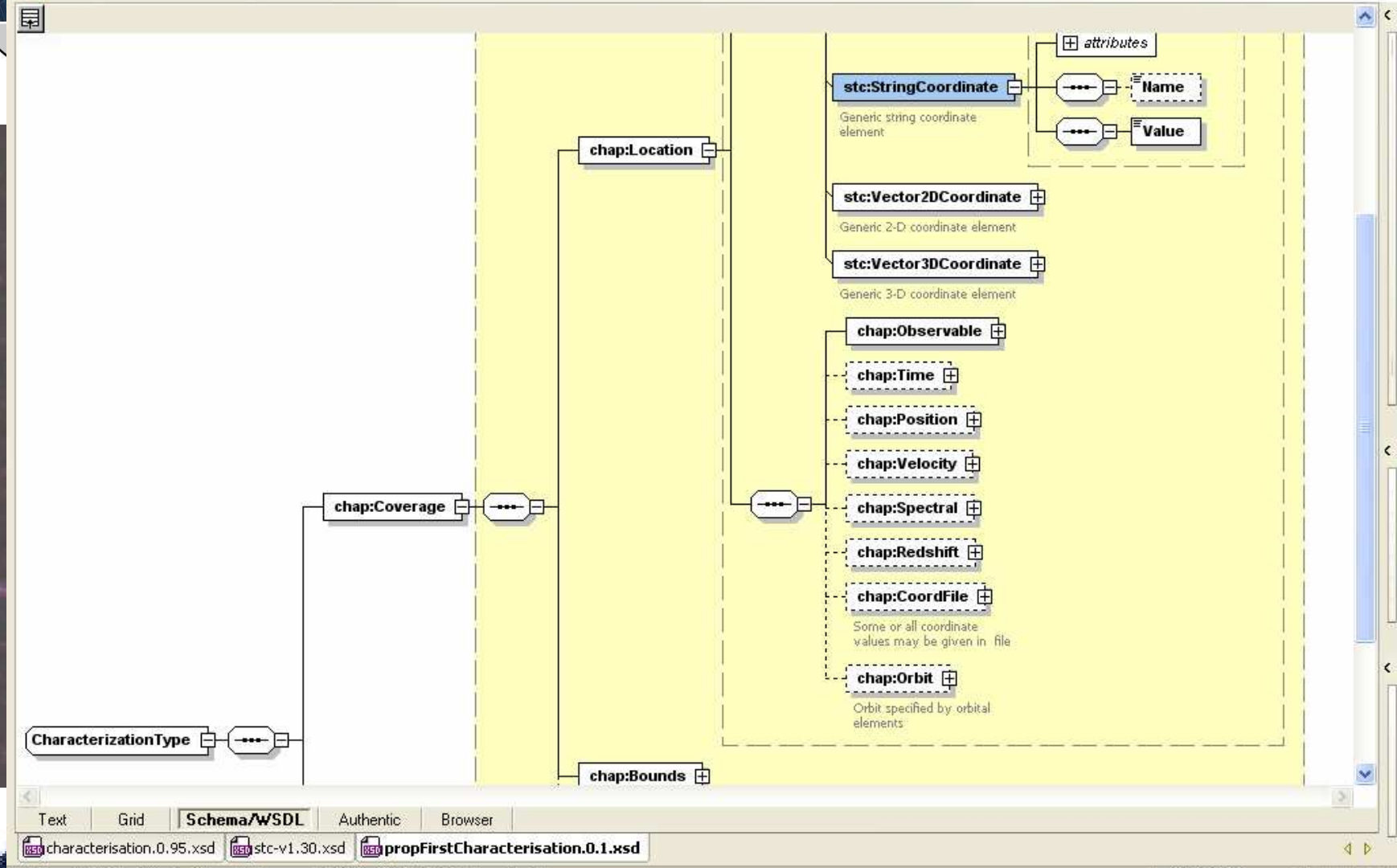
- Changing the coordsystem for a property
eg, Bounds or support:
 - move to the tangential plan
- A property first schema exists



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Implementations

- Characterisation service for the Aladin server (science case: VOEvent matching in collaboration with AstroGrid)
- Characterising the Vizier catalogs in the Registry query tool (SED constructions)
- Characterising the HST observations to look for asteroids using SkyBot (A.Micol ,D Forna)




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DataScope Query - Mozilla Firefox

Fichier Edition Affichage Aller à Marque-pages Outils ?

Démarrage Dernières nouvelles Mail :: Bienvenue sur ...



VO DataScope Query
VO Tools and Services

National Virtual Observatory Hosted at NASA/HEASARC

Welcome to the new NVO DataScope

The NVO DataScope has been completely re-engineered to give quicker results and more convenient access. After you start a query in just a few seconds you should get a page with a set of tabbed panels that show all the results found in an easily navigable form. Just click on the panel tab to view that panel. If you have comments or suggestions send us [feedback](#).

Table of recent transients/GRBs

What do we know about a given [point or](#) region in the sky?

To find out, just enter a target or position. The NVO DataScope will show you the results from hundreds of resources.

Position:

Use a target name (e.g., 3c273) or position (e.g., 10 10 10.1, 20 20 20.2)

Size: (in degrees, max is 2)

Run query:

Skip cache? **Refresh registry?**

Do not add to list of recent queries?

Some recent queries:

- 346.11, 3.9264 (0.012)
- RR Lyrae (0.25)
- 269.19, 30.000 (0.54)
- 40.500, 18.399 (0.54)
- 223.59, 20.399 (0.54)

Positions may be entered in decimal (dd.f, sdd.f) or sexagesimal (hh mm ss.f, dd mm ss.f) notation or as targets recognized by NED or SIMBAD.

The **Size** should be entered in decimal degrees.

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Click on the name to select the data for download or analysis.
 Click on the name to view the catalog data and select files.
 Click on the name to see the metadata for the resource.

When the number after the name is given as *nn/mm* you have selected *nn* of the *mm* files indexed in that resource. Click on the resource name to select files within such resources.

- Major Multiwavelength Services					
	<input type="checkbox"/> NED(images) (0/41) ?	<input type="checkbox"/> NED(sources) (1045) ?	<input type="checkbox"/> SkyView (0/20) ?		
- Images (Data in one or more FITS files)					
- Multi	<input type="checkbox"/> ADIL (0/7) ?	<input type="checkbox"/> CADC/HST (0/176) ?	<input type="checkbox"/> CADC/JCMT (0/14) ?	<input type="checkbox"/> HST/SIAP/PREVIEW (0/177) ?	<input type="checkbox"/> MAST-Scrapbook (0/60) ?
	<input type="checkbox"/> MAST Scrapbook (0/114) ?				
- Optical	<input type="checkbox"/> CADC/CFHT (0/284) ?	<input type="checkbox"/> DSS1 (0/1) ?	<input type="checkbox"/> DSS1 (0/1) ?	<input type="checkbox"/> DSS2 (0/1) ?	<input type="checkbox"/> DSS2B (0/1) ?
	<input type="checkbox"/> DSS2R (0/1) ?	<input type="checkbox"/> HST Previews (0/497) ?	<input type="checkbox"/> SDSSDR3-Color (1) ?	<input type="checkbox"/> SDSSDR3-G (0/7) ?	<input type="checkbox"/> SDSSDR3-I (0/7) ?
	<input type="checkbox"/> SDSSDR3-R (0/7) ?	<input type="checkbox"/> SDSSDR3-U (0/7) ?	<input type="checkbox"/> SDSSDR3-Z (0/7) ?	<input type="checkbox"/> SDSSDR4 (0/35) ?	<input type="checkbox"/> SDSSDR4-Color (1) ?
	<input type="checkbox"/> SDSSDR5 (0/35) ?				
- Radio	<input type="checkbox"/> CO (0/1) ?	<input type="checkbox"/> FIRST (0/2) ?	<input type="checkbox"/> FIRST (0/1) ?	<input type="checkbox"/> NVSS (0/1) ?	<input type="checkbox"/> WENSS (0/1) ?
	<input type="checkbox"/> GB6 (0/1) ?		<input type="checkbox"/> VLA-FIRST (0/1) ?		
- Infrared	<input type="checkbox"/> 2MASS (0/3) ?	<input type="checkbox"/> 2MASS QL (0/18) ?	<input type="checkbox"/> ISO SIAP AIO (0/5) ?	<input type="checkbox"/> ISSA (0/8) ?	<input type="checkbox"/> LGA (0/3) ?
	<input type="checkbox"/> MSX (0/4) ?	<input type="checkbox"/> SFD IR (0/2) ?	<input type="checkbox"/> IRAS (0/4) ?		
- UV	<input type="checkbox"/> GALEX (5) ?		<input type="checkbox"/> UIT (0/2) ?		
- X-ray	<input type="checkbox"/> Chandra (0/54) ?		<input type="checkbox"/> ROSAT/PSPC (0/2) ?	<input type="checkbox"/> RASS (0/3) ?	
- Other	<input type="checkbox"/> Aladin (0/69) ?		<input type="checkbox"/> XMM-Newton (0/3) ?		
- Lists of Observations (Data in one VOTable)					
- Multi	<input type="checkbox"/> ADIL (7) ?	<input type="checkbox"/> FOC (12) ?	<input type="checkbox"/> FOS (60) ?	<input type="checkbox"/> HST (100) ?	<input type="checkbox"/> ROSAT/WFC (3) ?
	<input type="checkbox"/> STIS (100) ?	<input type="checkbox"/> WFPC1 (36) ?	<input type="checkbox"/> WFPC2 (100) ?	<input type="checkbox"/> hete2tl (15235) ?	
- Optical	<input type="checkbox"/> HST (805) ?		<input type="checkbox"/> ACS (64) ?		
- Infrared	<input type="checkbox"/> NICMOS (100) ?				
- UV	<input type="checkbox"/> FUSE (2) ?	<input type="checkbox"/> FUSE (2) ?	<input type="checkbox"/> HIIT (2) ?	<input type="checkbox"/> TUE (34) ?	<input type="checkbox"/> IIT (2) ?

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Status: 37% complete. 46 matching resources with 17612 hits, 4 errors, 125 resources with no data, 293 remaining.
 Auto updates on. Turn auto updates off
 Cache created: Mon Sep 25 12:31:39 GMT 2006

- Summary
- Resources
- Data Table**
- No Data
- Still Processing
- Errors
- Help

Data for The ALADIN image server

Quick Links: [MetaData](#) | [XML](#) | [VOStat](#) | [VOPlot](#) | [Overlay](#)

<<First <Prev | 1-25 | Next> Last>>

<input type="checkbox"/> All	Observation_Name	CentralPoint_RA	CentralPoint_DEC	Naxes	Naxis	AngularPixelSize	OriginalCoding	DataType	Filte
1. View	2MASS_J_990214N_JI1190009	14 04 10.0	53 59 27.7	2		20.000000 20.000000	text/xml	Characterisaton.vot	J
2. <input type="checkbox"/> View FOV	2MASS_J_990214N_JI1190009	14 04 10.0	53 59 27.7	2		20.000000 20.000000	image/fits	Fits.image	J
3. View	2MASS_J_990214N_JI1190021	14 04 10.0	54 15 37.7	2		20.000000 20.000000	text/xml	Characterisaton.vot	J
4. <input type="checkbox"/> View FOV	2MASS_J_990214N_JI1190021	14 04 10.0	54 15 37.7	2		20.000000 20.000000	image/fits	Fits.image	J
5. View	2MASS_J_990214N_JI1190032	14 04 10.0	54 31 47.7	2		20.000000 20.000000	text/xml	Characterisaton.vot	J
6. <input type="checkbox"/> View FOV	2MASS_J_990214N_JI1190032	14 04 10.0	54 31 47.7	2		20.000000 20.000000	image/fits	Fits.image	J
7. View	2MASS_K_990214N_KI1100244	14 01 41.2	54 28 31.4	2		20.000000 20.000000	text/xml	Characterisaton.vot	K
8. <input type="checkbox"/> View FOV	2MASS_K_990214N_KI1100244	14 01 41.2	54 28 31.4	2		20.000000 20.000000	image/fits	Fits.image	K
9. View	2MASS_K_990214N_KI1100256	14 01 41.2	54 12 21.4	2		20.000000 20.000000	text/xml	Characterisaton.vot	K
10. <input type="checkbox"/> View FOV	2MASS_K_990214N_KI1100256	14 01 41.2	54 12 21.4	2		20.000000 20.000000	image/fits	Fits.image	K
11. View	2MASS_H_990214N_HI1100244	14 01 41.2	54 28 31.4	2		20.000000 20.000000	text/xml	Characterisaton.vot	H
12. <input type="checkbox"/> View FOV	2MASS_H_990214N_HI1100244	14 01 41.2	54 28 31.4	2		20.000000 20.000000	image/fits	Fits.image	H

javascript: void renderNode(66)



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http://heasarc.gsfc.nasa.gov - Mozilla Firefox

1. View	2MASS_J_990
2. <input type="checkbox"/> View FOV	2MASS_J_990
3. View	2MASS_J_990
4. <input type="checkbox"/> View FOV	2MASS_J_990
5. View	2MASS_J_990
6. <input type="checkbox"/> View FOV	2MASS_J_990
7. View	2MASS_K_990
8. <input type="checkbox"/> View FOV	2MASS_K_990
9. View	2MASS_K_990
10. <input type="checkbox"/> View FOV	2MASS_K_990
11. View	2MASS_H_990
12. <input type="checkbox"/> View FOV	2MASS_H_990
13. View	2MASS_H_990
14. <input type="checkbox"/> View FOV	2MASS_H_990
15. View	2MASS_J_990
16. <input type="checkbox"/> View FOV	2MASS_J_990
17. View	2MASS_J_990
18. <input type="checkbox"/> View FOV	2MASS_J_990

Data Table

```
<FIELD ID="Res" name="Spatial Resolution" datatype="double"
  utype="cha:characterizationAxis.resolution.ResolutionRefVal.ReferenceValue" />
<FIELD ID="Sam" name="Sampling Precision" datatype="double"
  utype="cha:characterizationAxis.samplingPrecision.SamplingPrecisionRefVal.Sampling
<GROUP utype="cha:characterizationAxis.axisFrame">
  <FIELDref ref="Na" />
  <FIELDref ref="Uc" />
  <FIELDref ref="Ca" />
  <FIELDref ref="CooSys" />
  <FIELDref ref="Ste" />
  <FIELDref ref="Sye" />
  <FIELDref ref="Ia" />
  <FIELDref ref="Nb" />
  <FIELDref ref="usSt" />
  <FIELDref ref="rsSt" />
</GROUP>
<GROUP utype="cha:characterizationAxis.coverage">
  <GROUP utype="cha:characterizationAxis.coverage.location">
    <FIELDref ref="Ra" />
    <FIELDref ref="dec" />
  </GROUP>
  *<GROUP utype="cha:characterizationAxis.coverage.bounds">
    <FIELDref ref="LoLi" />
    <FIELDref ref="HiLi" />
  </GROUP>
</GROUP>
<GROUP utype="cha:characterizationAxis.resolution">
  <FIELDref ref="Res" />
</GROUP>
<GROUP utype="cha:characterizationAxis.samplingPrecision">
  <FIELDref ref="Sam" />
</GROUP>
<DATA>
  <TABLEDATA>
    <TR>
      <TD>spatial</TD>
      <TD>pos</TD>
      <TD>CALIBRATED</TD>
      <TD>FK5</TD>
    </TR>
  </TABLEDATA>
</DATA>
```

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