
AIDA WP7

(3 tasks coordinated by CDS
+ other contributions)

F.Bonnarel, M.Louys, T.Boch



Footprint effort and integration in DAL

Boch, Bonnarel, Fernique

- Towards an IVOA Footprint service (collaboration with NVO)
 - IVOA note FOV can be seen as specific output format of a Footprint service for an observation:
New: Do we use STC-S to code the footprint?
 - Linkage of footprint and Observation ID upgraded with new version of OBs DM - CoreComponents
-

Involvement in Generic Data Set discovery services definition

Bonnarel, Louys, with Micol, Richards, Salgado

- First discussions involving Jesus Salgado, F.Bonnarel with Doug Tody
 - Generic dataset protocol: valid for any kind of dataset (whatever type)
 - Query params and output fields common to all typed protocols
 - Full access to datasets whatever it is
 - Description of various access modes to complex data. (AccessData method,
-

Involvement in Generic Data Set discovery services definition

Bonnarel, Louys, with Micol, Richards, Salgado

- Everything has been speed up since May Interop:
 - Have Data centers provide ObsDM description, available in a TAP service , queryble via ADQL using utypes.
 - Use cases provides by Take Up comitee (May 2009 Interop, D.Schade)
 - Teleconf/mailling list includes CADC, ESO, STSci, CDS, ESAC, +DM chair+ DAL vice-chair
 - UML, Xml schema, use case response document, utype list, VOTABLE query response prototyped.
 - Partial validation planned during this meeting.
 - Next step: help Pat Dowler to implement it as a TAP service
 - Issues:
 - Sensitivity
 - Dataset.contentType
 - Which utypes are really needed for
 - Where to put Complex access and whatever (TAP single table requirement)?
-

Observation – Provenance – Characterisation DM

Louys, Bonnarel with Micol, Richards

- Characterization 2 presented at May Interop:
 - Complex data:
 - Resolution and error maps (with Igor Chil)
 - New xml schema (July 2009) compliant with IVOA rules (like in VOresource)
 - Provenance schema presented at Interop:
 - Observing config
 - Ambient conditions
 - Software Provenance
-

Observation – Provenance – Characterisation DM

Louys, Bonnarel with Micol, Richards

- ❑ Observation UML diagram, xml schema, provided to the ObsTap mailing list in July
 - ❑ Use cases fulfilled...
 - ❑ Utype list for CoreComponents and VOTABLE
Example serialisation (see Generic Dataset)
 - ❑ Implementation via a TAP service (after validation by the ObsTap group)
-

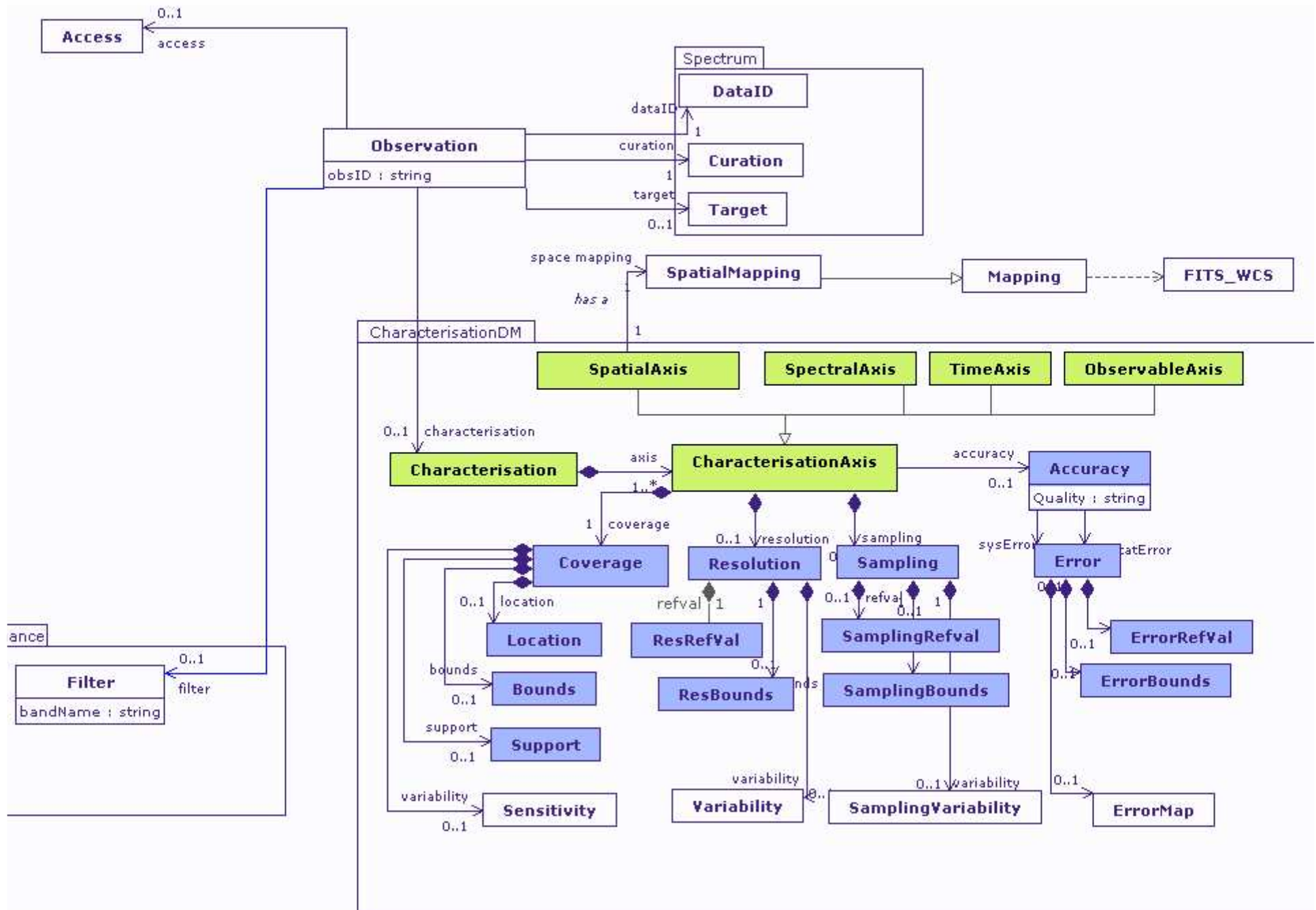
Other Tasks

- Association/Extension (J.Salgado/ESAC with F.Bonnarel) = will be integrated in SIA2
 - SIAV2 Draft: preliminary version by D.Tody, F.Bonnarel under review by other co-authors (A.Micol, D.Durand, A.Richards, J.Salgado) sinceToday !!!!)
 - Interface pre-defined similar to SSA
 - New AccessData parameters for cutouts, filtering, transforms and ...
 - Inclusion of spectral Band, Time and Polarimetry in queries and response
 - Staging/asynchronous interface
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Other Tasks

- Radio data (Anita Richards, with Louys, Bonnarel)
 - Anita's input taken into account in SIAV2 working draft
 - Unit Data Model: (Anita Richards) Proposal by S.Derrière --→ see Mireille's talk
-

his core model effort as well.



```
Fichier Edition Recherche Altichage Format Langage Paramétrage Macro Exécution TextFX Plugins Document ?
nph:Aladin++dev.cgi.fits xca.vol PourSIA2 gds.xml nph:Aladin++dev.cgi

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108 <FIELDref ref="MapSpatialProj" />
109 <FIELDref ref="MapSpatialCrval" />
110 <FIELDref ref="MapSpatialCrpix" />
111 <FIELDref ref="MapSpatialCdMatrix" />
112 <FIELDref ref="MapSpectralProj" />
113 <FIELDref ref="MapSpectralCrval" />
114 <FIELDref ref="MapSpectralCrpix" />
115 <FIELDref ref="MapSpectralCdMatrix" />
116 <FIELDref ref="MapTimeProj" />
117 <FIELDref ref="MapTimeCrval" />
118 <FIELDref ref="MapTimeCrpix" />
119 <FIELDref ref="MapTimeCdMatrix" />
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123 <DESCRIPTION>Access Metadata</DESCRIPTION>
124 <FIELDref ref="AcRef" />
125 <FIELDref ref="Format" />
126 <FIELDref ref="DatasetSize" />
127 </GROUP>
128
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130 <DESCRIPTION>Dataset publisher ivoa ID</DESCRIPTION>
131 </FIELD>
132 <FIELD ID="Reference" name="Reference" datatype="char" ucd="meta.bib.bibcode" utype="obs:Curation.Reference" arraysize="*">
133 <DESCRIPTION>URL or Bibcode for documentation</DESCRIPTION>
134 </FIELD>
135 <FIELD ID="PublisherVersion" name="PublisherVersion" datatype="char" ucd="meta.version;meta.curation" utype="obs:Curation.Version" arraysize="*">
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137 </FIELD>
138 <FIELD ID="Rights" name="Rights" datatype="char" utype="obs:Curation.Rights" arraysize="*">
139 <DESCRIPTION>Restrictions on data access</DESCRIPTION>
140 </FIELD>
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142 <DESCRIPTION>Date curated dataset last modified</DESCRIPTION>
143 </FIELD>
144 <FIELD ID="PublisherDID" name="PublisherDID" datatype="char" ucd="meta.ref.url;meta.curation" utype="obs:Curation.PublisherDID" arraysize="*">
145 <DESCRIPTION>Publisher's ID for the dataset </DESCRIPTION>
146 </FIELD>
147
148 <FIELD ID="Title" name="Title" datatype="char" ucd="meta.title;meta.dataset" utype="obs:DataID.Title" arraysize="*">
149 <DESCRIPTION>Dataset Title</DESCRIPTION>
150 </FIELD>
151 <FIELD ID="Creator" name="Creator" datatype="char" utype="obs:DataID.Creator" arraysize="*">
152 <DESCRIPTION>Dataset creator</DESCRIPTION>
```

```

|                               ObsDM Core components provisional utype list
obs:Curation.Publisher           Dataset publisher ivoa ID
obs:Curation.Reference           URL or Bibcode for documentation
obs:Curation.Version             Publisher's version of the dataset
obs:Curation.Rights              Restrictions on data access
obs:Curation.Date                Date curated dataset last modified
obs:Curation.PublisherDID        Publisher's ID for the dataset ID

obs:DataID.Title                 Dataset Title
obs:DataID.Creator               Dataset creator
obs:DataID.Collection            Data collection to which dataset belongs
obs:DataID.DatasetID            IVOA Dataset ID
obs:DataID.Date                  Data processing/creation date
obs:DataID.Version               Version of dataset
obs:DataID.CreationType          Dataset creation type
obs:DataID.CreatorDID            Creator's ID for the dataset
obs:DataID.Contributor           Contributors other than Creeator
obs:DataID.Logo                  Creator or collection logo pointer

obs:Dataset.ContentType          Datasrt content Type
obs:Dataset.Length               Number of data points or pixels

obs:Provenance/obsConfig.Bandpass Band as in RSM Coverage.Spectral
obs:Provenance/obsConfig.DataSource Original source of the data

obs:Char/SpatialAxis.Coverage.Location.Position2D.Value2 Spatial Position
obs:Char/SpatialAxis.Coverage.Bounds.Extent                Aperture angular area
obs:Char/SpatialAxis.Coverage.Bounds.Limits.Interval.LoLim2Vec Min Ra,Dec
obs:Char/SpatialAxis.Coverage.Bounds.Limits.Interval.HiLimit2Vec Max Ra,Dec
obs:Char/SpatialAxis.Coverage.Support.Area                 Field of view (pointer)
obs:Char/SpatialAxis.Coverage.Support.Fill                Spatial filling factor
obs:Char/SpatialAxis.Accuracy.StatError                  Astrometric statistical error
obs:Char/SpatialAxis.Accuracy.SysError                   Astrometric systematic error
obs:Char/SpatialAxis.Accuracy.Calibration                Type of spatial coord calibration
obs:Char/SpatialAxis.Resolution                          Spatial resolution of data
obs:Char/SpatialAxis.Sampling                            Spatial sampling of data

obs:Char/SpectralAxis.Ucd                                       UCD for spectral coord
obs:Char/SpectralAxis.Coverage.Location.Spectral.Value           Spectral coord mid value
obs:Char/SpectralAxis.Coverage.Bounds.Extent                    Width of spectrum
obs:Char/SpectralAxis.Coverage.Bounds.Limits.Interval.LoLim    Start in spectral coordinate
obs:Char/SpectralAxis.Coverage.Bounds.Limits.Interval.HiLim    Stop in spectral coordinate
obs:Char/SpectralAxis.Coverage.Support.Fill                     Spectral sampling filling factor
obs:Char/SpectralAxis.Accuracy.StatError                       Spectral coord statistical error
obs:Char/SpectralAxis.Accuracy.SysError                        Spectral coord systematic error

obs:Char/TimeAxis.Coverage.Location.Time.TimeInstant          Midpoint of exposure on MJD scale
obs:Char/TimeAxis.Coverage.Bounds.Extent                      Total exposure time
obs:Char/TimeAxis.Coverage.Bounds.Limits.Interval.LoLim      Start time
obs:Char/TimeAxis.Coverage.Bounds.Limits.Interval.HiLim      Stop time
obs:Char/TimeAxis.Coverage.Support.Fill                       Time sampling filling factor
obs:Char/TimeAxis.Accuracy.StatError                          Time coord statistical error
obs:Char/TimeAxis.Accuracy.SysError                            Time coord systematic error
obs:Char/TimeAxis.Accuracy.Calibration                        Type of coord calibration

```

4 Discover Time Series of Interest

4.1 Show me a list of all data that satisfies

4.1.1 dataType=TimeSeries

4.1.2RA includes 16.00 hours

4.1.3DEC includes +41.00

4.1.4Time resolution better than 1 minute

4.1.5Time interval (start of series to end of series) > 1 week

4.1.6Observation data before June 10, 2008

4.1.7Observation data after June 10, 2007

use case 4.1

Observation.dataType ou obs:DataSet.contentType = TimeSeries

obs:char.SpatialAxis.coverage.bounds.limits contains (16.0,+41.0)

obs:char.TimeAxis.resolution.resolutionRefval < 1 min

obs:char.TimeAxis.bounds.limits includes June 10 2007 an June 10 2008

obs:char.TimeAxis.bounds.extent > 1 week

Remarks: includes is again an STC check on an Interval.

5 Discover General Data of interest

5.1 Show me a list of all data that satisfies

```
at javax.swing.JComponent.paint(Unknown Source)
at javax.swing.JComponent.paintChildren(Unknown Source)
at javax.swing.JComponent.paintToOffscreen(Unknown Source)
at javax.swing.BufferStrategyPaintManager.paint(Unknown Source)
at javax.swing.RepaintManager.paint(Unknown Source)
at javax.swing.JComponent.paint(Unknown Source)
at java.awt.GraphicsCallback$PaintCallback.run(Unknown Source)
at sun.awt.SunGraphicsCallback.runOneComponent(Unknown Source)
at sun.awt.SunGraphicsCallback.runComponents(Unknown Source)
at java.awt.Container.paint(Unknown Source)
at javax.swing.RepaintManager.paintDirtyRegions(Unknown Source)
at javax.swing.RepaintManager.paintDirtyRegions(Unknown Source)
at javax.swing.RepaintManager.seqPaintDirtyRegions(Unknown Source)
at javax.swing.SystemEventQueueUtilities$ComponentWorkRequest.run(Unknown Source)
at java.awt.event.InvocationEvent.dispatch(Unknown Source)
at java.awt.EventQueue.dispatchEvent(Unknown Source)
at java.awt.EventDispatchThread.pumpOneEventForFilters(Unknown Source)
```

Table Browser for 1: [nph-Aladin++test.cgi?position=1.43936+%2B81.0714...](http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?position=1.43936+%2B81.0714...)

	AcRef	
1	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=012&survey=POSSI&color=E-DSS1&mode=view	irr
2	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=012&survey=POSSI&color=E-LOW-DSS1&mode=view	irr
3	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=002&survey=POSSI&color=E-PLATE-DSS1&mode=vie...	irr
4	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=012&survey=POSSII&color=F-DSS2&mode=view	irr
5	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=012&survey=POSSII&color=J-DSS2&mode=view	irr
6	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=012&survey=POSSII&color=N-DSS2&mode=view	irr
7	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=012&survey=POSSI&color=O-DSS2&mode=view	irr
8	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=012&survey=POSSII&color=F-PLATE-DSS2&mode=vie...	irr
9	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=012&survey=POSSII&color=J-PLATE-DSS2&mode=vie...	irr
10	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=012&survey=POSSII&color=N-PLATE-DSS2&mode=vie...	irr
11	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=012&survey=POSSI&color=O-PLATE-DSS2&mode=vie...	irr
12	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=000704N_JI0970138&survey=2MASS&color=J&mode=...	irr
13	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=000704N_KI0970138&survey=2MASS&color=K&mode=...	irr
14	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=000704N_JI0980138&survey=2MASS&color=J&mode=...	irr
15	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=000704N_HI0970138&survey=2MASS&color=H&mod...	irr
16	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=000704N_KI0980138&survey=2MASS&color=K&mode=...	irr
17	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=000704N_HI0980138&survey=2MASS&color=H&mod...	irr
18	http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?out=image&position=1.439360+81.071471&field=1422B240&survey=IRAS_IRIS&color=25MLI&mode=view...	irr

er Plot

uType\$ria_Char_TimeAxis_Coverage_Location_Value

1: [nph-Aladin++test.cgi?position=1.43936+%2B81.0714...](http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?position=1.43936+%2B81.0714...)

Range: Location Value

Log Flip

Position: (46883, 67,4)

TOPCAT

File Views Graphics Joins Windows Interop Help

Table List

1: [nph-Aladin++test.cgi?position=1.43936+%2B81.0714...](http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?position=1.43936+%2B81.0714...)

Current Table Properties

Label: [nph-Aladin++test.cgi?position=1.43936+%2B81.0714...](http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?position=1.43936+%2B81.0714...)

Location: <http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi>

Name: [nph-Aladin++test.cgi?position=1.43936+%2B81.07147](http://baladin.u-strasbg.fr/cgi-bin/nph-Aladin++test.cgi?position=1.43936+%2B81.07147)

Rows: 26

Columns: 41

Sort Order: [Dropdown]

Row Subset: All

Activation Action: (no action) Broadcast Row

Messages: Clients:

utypes management in TOPCAT (Mark Taylor)