

One Use Case Of The Characterization DM With SAADA

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- **Building a database with the following dataset**
 - 51 DENIS images
 - 40 2MASS images
- **Providing an image service publishing both image collections**
 - All images must be seen as an homogeneous collection.
 - Image must be accessible with VOTools.
 - We don't want to modify anything in image keywords.

- **Building a SaadaDB**

- Create an empty SaadaDB with Saada
- Create a Saada collection in this SaadaDB (e.g. **VoDMinPractice**)
- Load successively both image sets

- **Tag DB Image Columns with Characterization UTypes**

- By hand with the SaadaDB admin tool (to show how to proceed)
- With a script (to save demo time)

- **Select Images in the Merged Collection**

- Using SaadaQL queries based on **UTypes**
- Using the SaadaDB SIAP server with *Aladin*

Target.....	PHL 2964	00:47:18.97-20:40:01.842
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Category of searched data

Query scope: any class in any collection (whole database)

```
Select IMAGE From * In *  
Where UType {  
  | SpectralAxis.coverage.location.coord.Spectral.Value | > 1300 [nm]  
}
```

*Queryable **UType** from searched classes*

expressed with unit

- **Using a data model mapping in addition with units allows to state queries without using description of the DB columns.**

Aladin display of SAADA SIAP query response with char utype



Server selector

Others File all-VO FOV Ser

Image servers

- Aladin images
- SkyView
- Sloan
- MAST
- CADC
- ESO SSAP
- ESO SIAP
- HST SIAP
- CFHTLS
- DSS...
- VLA...
- Saada SIA
- ESO...
- VO-Tech...

SIA access to the SaadaDB DMDemo

Fill in all these fields and press the SUBMIT button

Target..... PHL 2964

Radius..... 14.0'

- Denis CAMI 02/09/2000 12.9' x 12.9'
- Denis CAMJ 02/09/2000 12.8' x 12.9'
- Denis CAMK 02/09/2000 12.6' x 12.7'
- 2MASS scan_118 8.6' x 17.1'

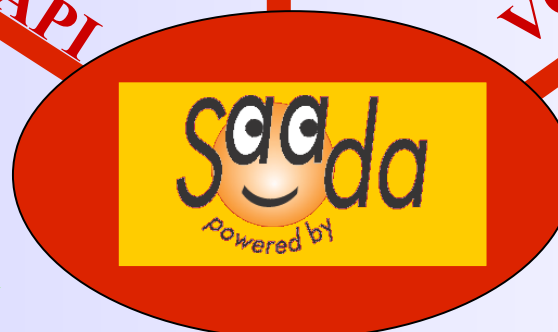
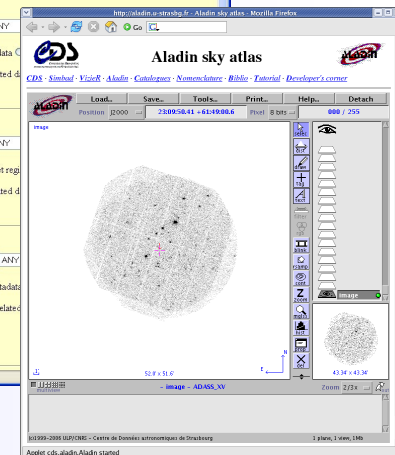
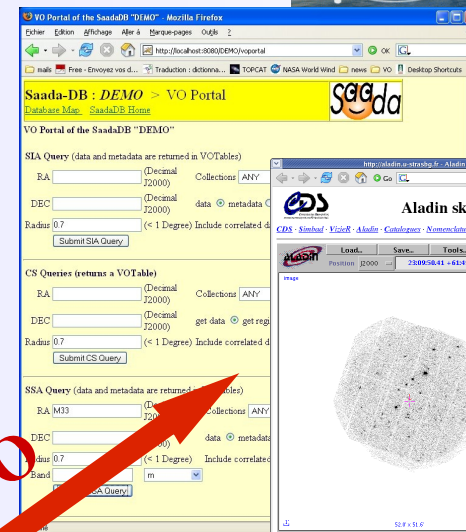
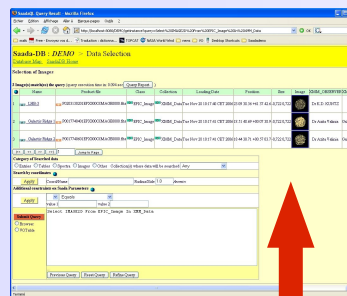
Data Info Frame

Display

Denis CAMI 02/09/2000

UType	Value
SpatialAxis_samplingPrecision_samplingPrecisionRefVal.sam...	U.UUUU2/89/8/8143180U U.UUUU2/86826603/6000
TimeAxis.AxisName	time
TimeAxis.ucd	time
TimeAxis.unit	day
TimeAxis.independentaxis	false
TimeAxis.numBins	1
TimeAxis.coordsystem	TT-ICR5-WAVELENGTH-TOPO
TimeAxis.accuracy_statError_ErrorRefval_ErrorRefValue	Unknown
TimeAxis.accuracy_sysError_ErrorRefval_ErrorRefValue	Unknown
TimeAxis.calibrationStatus	CALIBRATED
TimeAxis.undersamplingStatus	false
TimeAxis.regularsamplingStatus	false
TimeAxis.coverage.location.coord.Time.TimeInstant	2000-09-02
TimeAxis.coverage.bounds.limits.CoordScalarInterval.LoLimit	Unknown
TimeAxis.coverage.bounds.limits.CoordScalarInterval.HiLimit	Unknown
TimeAxis.resolution.resolutionRefVal	Unknown
TimeAxis.samplingPrecision_samplingPrecisionRefVal.sampli...	Unknown
SpectralAxis.AxisName	Spectral
SpectralAxis.ucd	em
SpectralAxis.unit	mu
SpectralAxis.independentaxis	false
SpectralAxis.numBins	1
SpectralAxis.coordsystem	TT-ICR5-WAVELENGTH-TOPO
SpectralAxis.accuracy_statError_ErrorRefval_ErrorRefValue	Unknown
SpectralAxis.accuracy_sysError_ErrorRefval_ErrorRefValue	Unknown
SpectralAxis.calibrationStatus	CALIBRATED
SpectralAxis.undersamplingStatus	false
SpectralAxis.regularsamplingStatus	false
SpectralAxis.coverage.location.coord.Spectral.Value	0.8
SpectralAxis.coverage.bounds.limits.CoordScalarInterval...	0.7
SpectralAxis.coverage.bounds.limits.CoordScalarInterval	0.0

Stick Edit/reset Close



Java API

WEB

VO

Downloading + installation



Mapping rules

FITS files
VOtables

Scatter Plot window showing a plot of SpectralAxis_covboulimCooLoL vs SpectralAxis_covboulimCooHiL. The plot has a grid and two data series: '1.2_1.4' (blue squares) and 'All' (red circles). A legend is in the top right. The plot shows four points: one red circle at approx (0.8, 0.9), one blue square at (1.2, 1.4), one red circle at (1.2, 1.7), and one red circle at (2.0, 2.3).

TOPCAT(1): Table Columns window showing a table of column definitions for sia2.xml.txt. The table has columns: Visible, Name, Shape, Datatype, and utype. Rows 56 and 60 are highlighted with arrows pointing to the scatter plot.

Visible	Name	Shape	Datatype	utype
<input checked="" type="checkbox"/>	SpectralAxis_ind		boolean	SpectralAxis.independentaxis
<input checked="" type="checkbox"/>	SpectralAxis_num		int	SpectralAxis.numBins
<input checked="" type="checkbox"/>	SpectralAxis_coo	*	String	SpectralAxis.coordsystem
<input checked="" type="checkbox"/>	SpectralAxis_accstaErrErr	*	String	SpectralAxis.accuracy.statError.ErrorRefVal.ErrorRefValue
<input checked="" type="checkbox"/>	SpectralAxis_accsysErrErr	*	String	SpectralAxis.accuracy.sysError.ErrorRefVal.ErrorRefValue
<input checked="" type="checkbox"/>	SpectralAxis_cal	*	String	SpectralAxis.calibrationStatus
<input checked="" type="checkbox"/>	SpectralAxis_und		boolean	SpectralAxis.undersamplingStatus
<input checked="" type="checkbox"/>	SpectralAxis_reg		boolean	SpectralAxis.regularsamplingStatus
<input checked="" type="checkbox"/>	SpectralAxis_covloccoSpeVal		double	SpectralAxis.coverage.location.coord.Spectral.Value
<input checked="" type="checkbox"/>	SpectralAxis_covboulimCooLoL		double	SpectralAxis.coverage.bounds.limits.CoordScalarInterval.LoLimit
<input checked="" type="checkbox"/>	SpectralAxis_covboulimCooHiL		double	SpectralAxis.coverage.bounds.limits.CoordScalarInterval.HiLimit
<input checked="" type="checkbox"/>	SpectralAxis_resres			SpectralAxis.resolution.resolutionRefVal
<input checked="" type="checkbox"/>	SpectralAxis_samsamsam			SpectralAxis.samplingPrecision.samplingPrecisionRefVal.samplingPeriod
<input checked="" type="checkbox"/>	TimeAxis_accsatErrErr	*	String	TimeAxis.accuracy.satError.ErrorRefVal.ErrorRefValue
<input checked="" type="checkbox"/>	TimeAxis_accsysErrErr	*	String	TimeAxis.accuracy.sysError.ErrorRefVal.ErrorRefValue
<input checked="" type="checkbox"/>	TimeAxis_covboulimTimSta	*	String	TimeAxis.coverage.bounds.limits.TimeInterval.StartTime

TOPCAT(1): Table Browser window showing a table of data rows for sia2.xml.txt. The table has columns: SaadaName, SaadaClass, RA, DEC, Naxes, Naxis, and Scale. Row 4 is highlighted with an arrow pointing to the scatter plot.

SaadaName	SaadaClass	RA	DEC	Naxes	Naxis	Scale
Denis CAMJ 18/05/1998	Denis	287,32162	-63,83154	2	(768, 780)	(2.765373195175E-4, 2.752185708629E-4)
2 Denis CAMK 18/05/1998	Denis	287,32364	-63,83128	2	(768, 780)	(2.7308668684460026E-4, 2.711480881998E-4)
3 Denis CAMI 18/05/1998	Denis	287,3237	-63,83083	2	(768, 768)	(2.793156899667005E-4, 2.790757591335E-4)
4 zMASS scan_122	TWOmass	287,29199	-63,75994	2	(512, 1024)	(2.777777845E-4, 2.777777845E-4)

Main window showing table selection and axis configuration. The table is set to '1: sia2.xml.txt'. The X-axis is 'SpectralAxis_covboulimCooLoL' and the Y-axis is 'SpectralAxis_covboulimCooHiL'. Row subsets are set to 'All'.