

Obscore DM v 1.1

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Points for the current update

1. Dimensions of the axes along which data are spanned
 - s_dim1 *Spatial*
 - s_dim2
 - em_dim *Spectral*
 - t_dim *Temporal*
 - pol_dim *Polarization*
2. Wording for these quantities: **samples** , **elements** , **bins** , ?
3. How to accomodate dimensions for an event list :
 - number of events?
4. Previous intermediate version had Utypes strings fixed

More use-cases asked in Sesto (1)

Appendix A. in the ObsCore specification

Use case 3.10

Show me a list of all data, For a selected list of SDSS objects that satisfies:

1. DataType=Cube with 3 dimensions *dataprodct_type = cube*
2. Axes includes WAVE *em_ucd=em.wl*
3. Axes includes more than 200 pixels along each spatial axis *s_dim1 and s_dim2 > 200*
4. Spatial resolution better than 2 arcsec *s_resolution < 2*

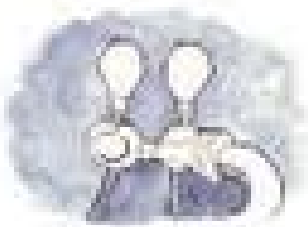
More use-cases asked in Sesto (2)

Use case 4.3

Show me a list of all data matching a particular event (e.g. gamma ray burst) in time interval and space:

1. DataType=time series
2. RA includes 16.00 hours
3. DEC includes +41.00
4. Time start > MJD 54221 and Time stop < MJD 55800
5. Number of time slots > 1000

```
SELECT TOP 100 ivoa.ObsCore.access_url,ivoa.ObsCore.obs_id FROM  
ivoa.ObsCore WHERE  
(CONTAINS(POINT('ICRS', ivoa.ObsCore.s_ra, ivoa.ObsCore.s_dec),  
CIRCLE('ICRS', 10.684667, +41.268750, 0.016666666666666666)) = 1)  
AND ivoa.ObsCore.dataproduct_type = 'timeseries'  
AND ivoa.ObsCore.t_resolution > 60  
AND ivoa.ObsCore.t_min > 54221  
AND ivoa.ObsCore.t_max < 55800  
AND t_dim > 1000
```



*Tested in
TapHandle on
ObSTAP services*

Event list use-cases

Show me a list of all event lists observed in the XMM data collection within the region covered by a particular image of GALEX data collection.

1. DataType = **event list**
2. Region contains polygon P1 extracted from the foot print of a particular GALEX image
3. Data collection= **XMM**
4. Instrument name=**EPN**

```
SELECT xmm.access_url,xmm.obs_id  
FROM ivoa.ObsCore AS xmm  
JOIN ivoa.ObsCore as galex  
ON (CONTAINS(REGION(galex.s_region),  
REGION(xmm.s_region)) = 1)  
WHERE xmm.dataproduct_type = 'eventlist'  
AND galex.facility_name = 'GALEX'  
AND galex.dataproduct_type = 'image'  
AND xmm.facility_name = 'XMM'  
AND xmm.instrument_name = 'EPN'
```

Data content search

- All characterisation axes are supported
 - s, em, t, pol
- More dedicated parameters
 - Detection limit
 - SNR
 - Number of Events
 - Nb of sources in an image field
 - ...

are not part of Obscore

How to advertise use-case and working examples

- ?An example Web page attached to TapHandle?
- ? An implementation note?
- ? Other

Document release schedule

- Update from this discussion
- Will be uploaded on ivoa.net/Documents
- Will be circulated on dm mailing list
- Discussion page at <http://wiki.ivoa.net/twiki/bin/view/IVOA/ObsCoreDMvOnedotOne>
- By 10 November 2015