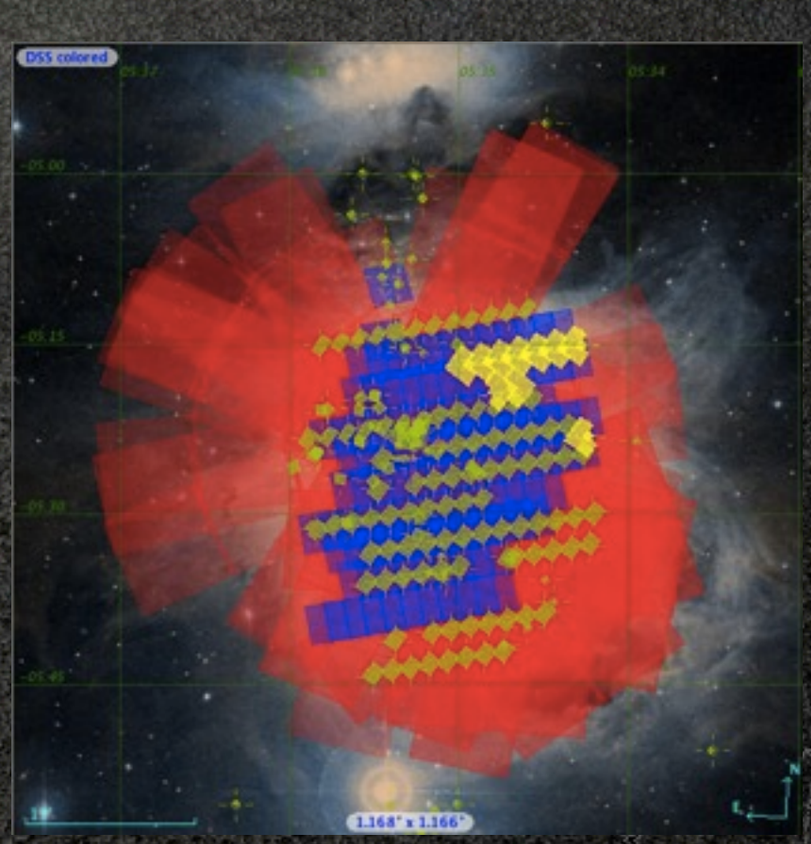
Footprints in Aladin

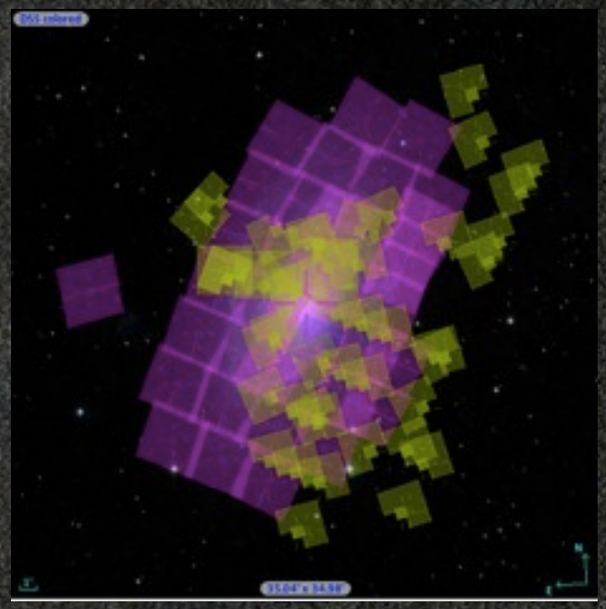
Thomas Boch, *Pierre Fernique [CDS]*

IVOA Interop Urbana Champaign, May 2012

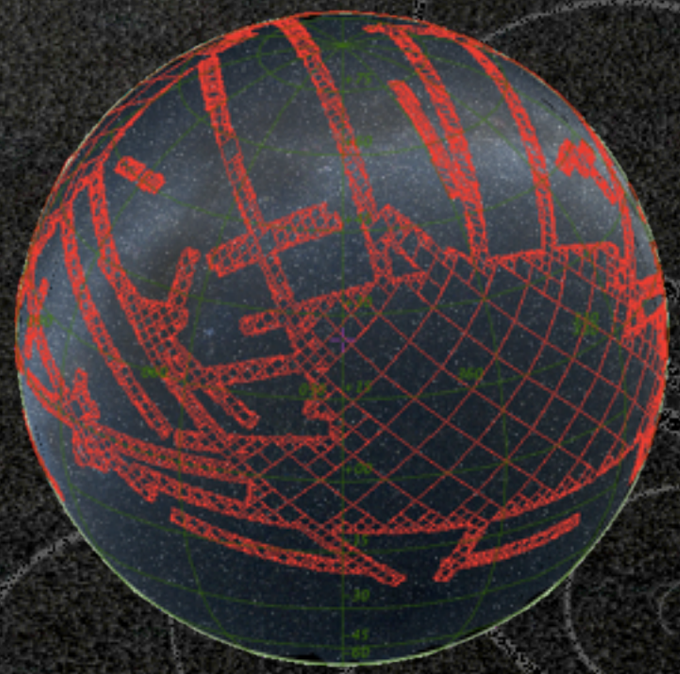


Outline

1. *Observation-level footprints:*
   Support for STC-S in SIAP query response



2. *Global footprints of datasets:*
   MOC (Multi-Order Coverage maps)



STC-S footprints

IVOA Interop Urbana Champaign
May 2012 - T. Boch

STC-S footprints

- **What was done in Aladin**
  - partial support of STC-S in SIAP query responses
    - currently only **Polygon**s in *ICRS* or *J2000* frame
    - soon Circle and Union of Polygon/Circle
  - available in Aladin beta version
  - demo

STC-S footprints

- **What was done in Aladin**
  - partial support of STC-S in SIAP query responses
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- **What we shoud agree on at this meeting**
  - unambiguous way to designate the field holding the STC-S footprint in S*AP protocol
  - currently, each service providing STC-S description uses a different way

STC-S footprints

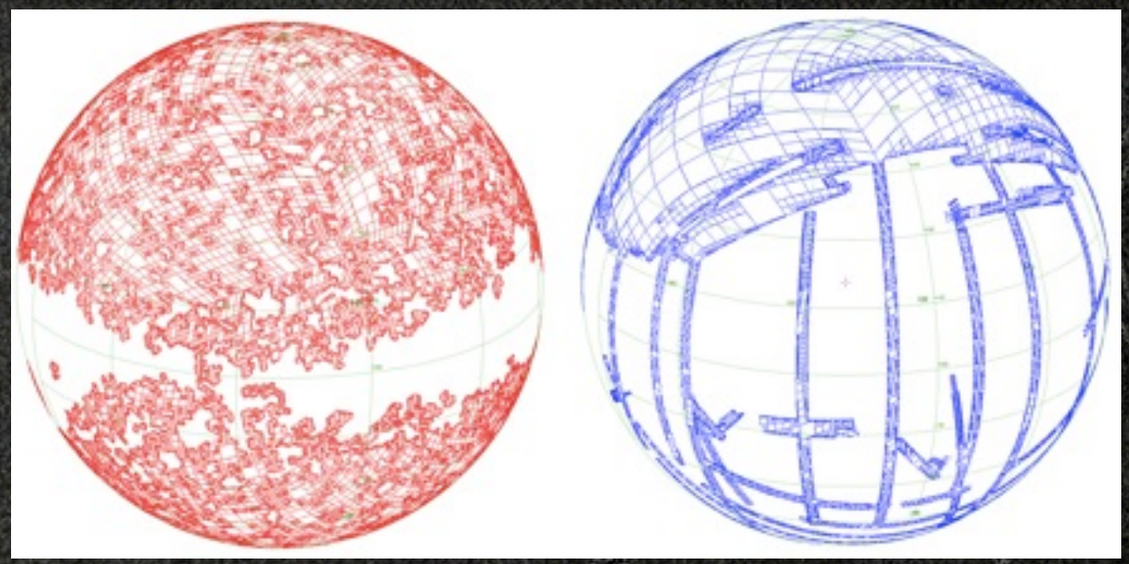
```
Service 1 : <FIELD name="position_bounds" unit="deg"
             xtype="adql:REGION"
             datatype="char" arraysize="*" />

Service 2 : <FIELD name="stcs" datatype="char"
             ucd="phys.area;obs.field" unit="deg"
             arraysize="*" />

Service 3 : <FIELD ID="regionSTCS" name="regionSTCS"
             datatype="char"
             arraysize="*" />
```

nt in S*AP

t way

MOC *(1/2)*

- What is a MOC ? (Multi Order Coverage map)
  - Simple and efficient method to describe and compare dataset coverages
  - Based on HEALPix tesselation
- Use cases
  - Visualization of coverage
  - Comparison of coverages *(eg common intersection between **n** catalogues and **m** images surveys)*
  - Remote cross-match *(where will I find potential counterparts ?)*
  - Multi-service positional search



MOC *(2/2)*

- Status
  - IVOA note published
    http://ivoa.net/Documents/Notes/MOC/
  - Java MOC library available
  - Tools to generate MOCs
    - implementation in Aladin (visualization)
      and in TOPCAT (multicone search)
    - MOCs for VizieR tables available at
      http://alasky.u-strasbg.fr/footprints/tables/vizier/
    - MOC demonstrator
      http://alasky.u-strasbg.fr/MocServer/
- See presentation at Apps session for more details