The benefits of good metadata

Get your data to shine in VO applications like ESASky by adding a few UCDs

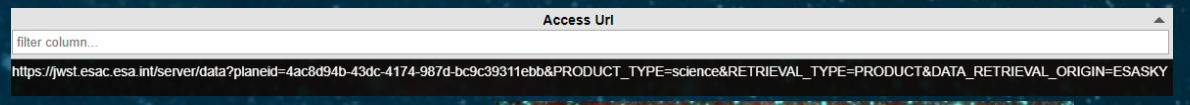
Henrik Norman, Winter Way for ESA

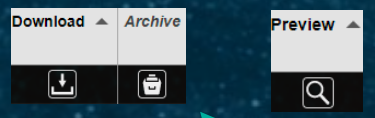
ESA ESAC

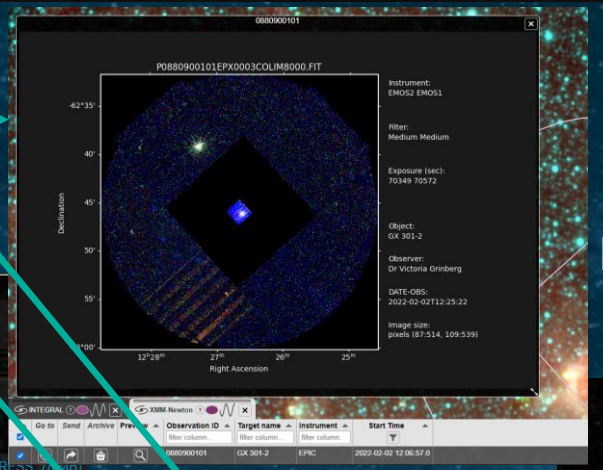
ESA UNCLASSIFIED – For ESA Official Use Only

ESASky and other VO applications

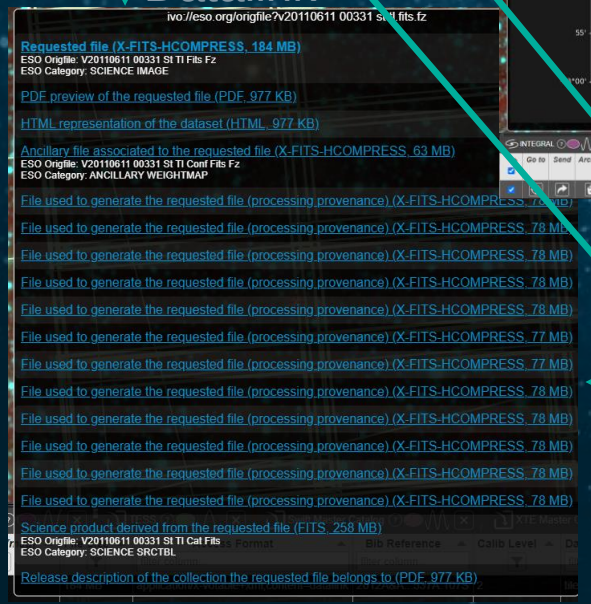
Format, filter, sort, preview, & datalinks

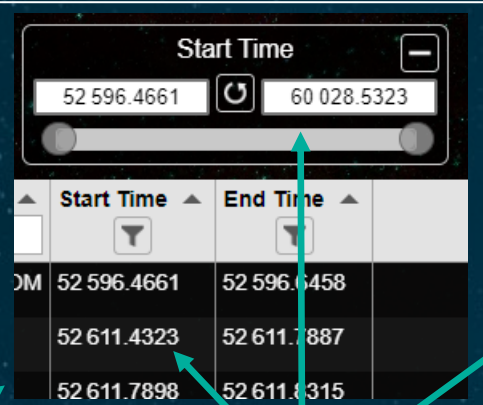




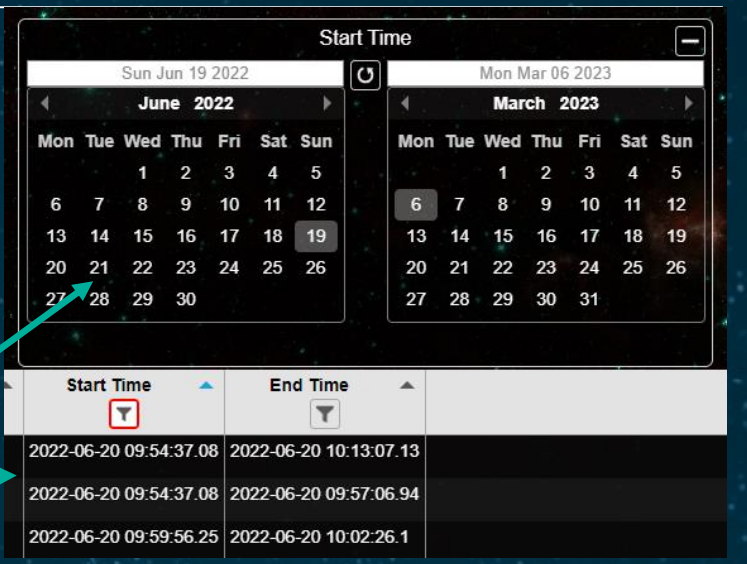


Datalink



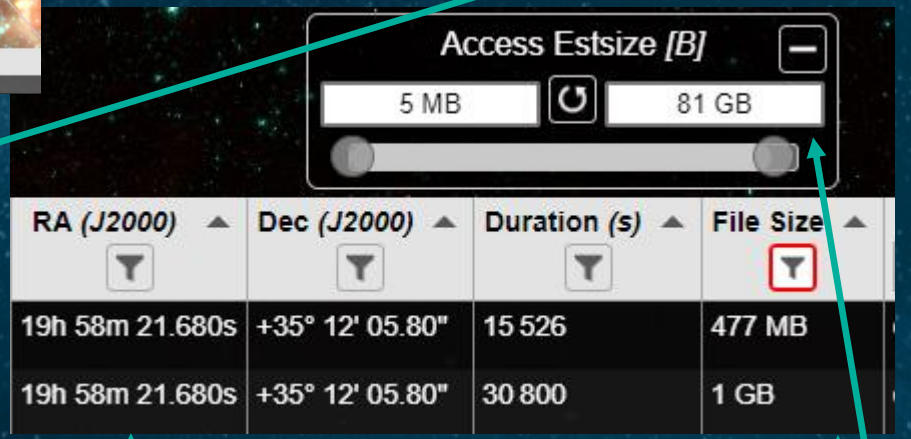


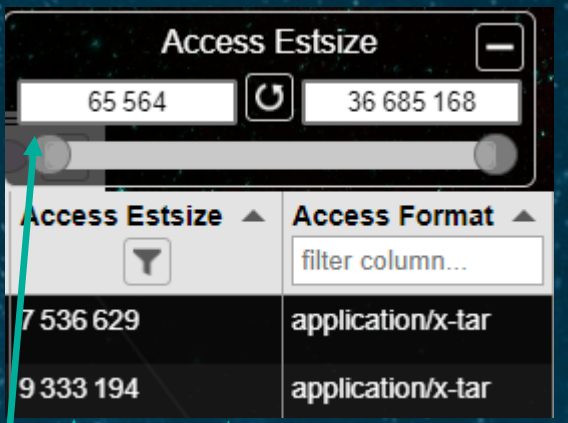
Bad metadata



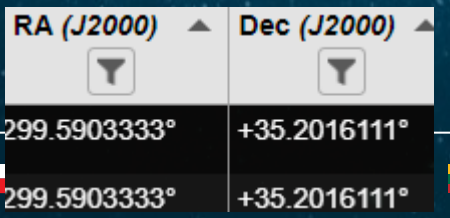
Dates

Good metadata





Users can switch RA, Dec display format



File size

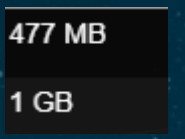
Bad metadata

UCDs, utypes, xtypes, datatypes…

- IVOA standards
  - **UCD** – Unified Content Descriptors are the primary way to inform VO applications about how to interpret your data
  - UType
  - XType
  - Datatype

- Update your database table **tap_schema.all_columns** with UCD information to reap the benefits. Bonus points for adding UType and XType information

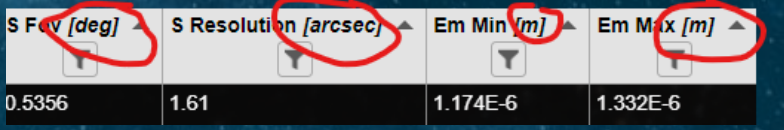
UCDs in ESASky

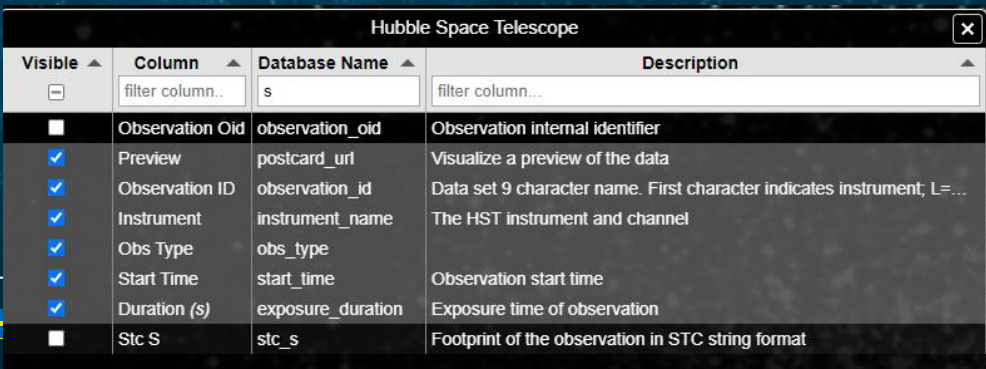
- *phys.size* → Allows ESASky to show user-friendly numbers like 20 MB, 1 GB, or similar, instead of just a number like 12345678 

- *pos.eq.ra* → RA field
- *pos.eq.dec* → Dec field
- *meta.ref.url;meta.preview* → Enable viewing of postcards within ESASky, instead of just a link in plain text
- *meta.dataset;meta.ref.url* → To enable download functionality within ESASky (including datalink browser, if the product is a datalink). So instead of showing an unclickable link in plain text, a download button is shown and given the appropriate behavior.
- *meta.ref.url* → for other URLs
- *time.start* or *time.end* → To show time and date instead of MJD

TAP Schema information in ESASky

- *principal* – Decide which columns to show the user. For example, showing the stc_s – column by default is usually not very useful to the user, and it takes up a lot of screen real estate. ALL columns are still loaded into ESASky, and the user can then manually choose which columns to show or hide. When a user downloads a table, all columns are downloaded.
- *column_index* – Order your columns. RA, Dec, RA error & Dec error should be close to each other. Columns without column index will be put at the end (in the same order as in the database).
- *unit* – Units are shown in the header ->
- *description* – Visible when hovering over a column header or when deciding what columns to show

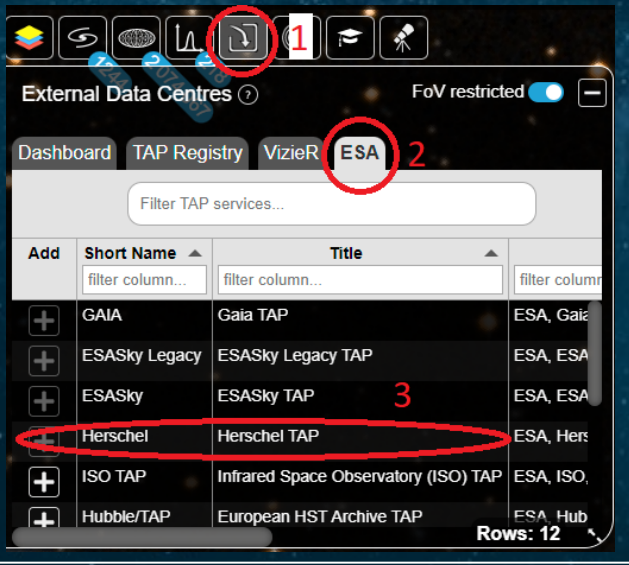




Validate in ESASky

- Go to https://sky.esa.int -> open browser console -> edit the bold part to the URL of your TAP -> paste message in browser console and press enter *postMessage({'event':'plotTapServiceWithDetails', 'content': {'name':'JWST', 'tapUrl':'**https://jwst.esac.esa.int/server/tap**', 'adql':'SELECT TOP 1 * FROM ivoa.obscore'}})*

- OR



Resources

- UCD standard
- List of valid UCDs
- Tool to help you find good UCDs
- Extra UCD info

If you need support:

Henrik Norman

henrik@winterway.eu