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Centro Nazionale di Ricerca in HPC,
Big Data and Quantum Computing

Metadata round table

Massimo Costantini - INAF - Trieste

Spoke 3 General Meeting, Elba 5-9 / 05, 2024

Metadata

Data sources have to provide the list of metadata to be labelled, imported, filtered, queried and viewed as result.

	A	B	C	D	E	F
1	NAME	LABEL	TO BE IMPORTED	TO BE FILTERED	TO BE QUERIED	IN RESULTS VIEW (DEFAULT)
2	NAXIS_HDU0		Y	N	N	N
3	EXTEND		Y	N	N	N
4	CHECKSUM_HDU0		Y	N	N	N
5	DATASUM_HDU0		Y	N	N	N
6	TELESCOP		Y	N	Y	Y
7	INSTRUME		Y	N	Y	Y
8	EQUINOX		Y	N	Y	Y
9	RADECSYS		Y	N	N	N
10	DATE		Y	N	Y	Y
11	DATE_OBS	Observation start date	Y	Y	Y	Y
12	DATE_END	Observation end date	Y	Y	Y	Y
13	TSTART	Start MET (s)	Y	Y	Y	Y
14	TSTOP	End MET (s)	Y	Y	Y	Y
15	TIMESYS		Y	N	N	N
16	TIMEUNIT		Y	N	N	N
17	GPS_OUT		Y	N	N	N
18	MJDREFI		Y	N	N	N
19	MJDREFF		Y	N	N	N
20	OBSERVER		Y	N	Y	Y
21	FILENAME		Y	N	Y	Y
22	ORIGIN		Y	N	N	N
23	CREATOR		Y	N	N	N

Fermi

Example of mandatory fields component.

Both fields have to be filled in to enable the search button.

The screenshot shows a web browser window with the URL `localhost:8084/ui/#/fermi`. The page title is "jPortal" and the user is logged in as "Massimo Costantini". The interface includes a sidebar with navigation options: Help, Settings, Observation (Fermi, Gaia), Simulation (Pluto, Ramses), and a main content area. The main content area has tabs for "Search", "ADQL", and "Results". Under the "Search" tab, there is a "Vertical" dropdown menu and a "Spacecraft" dropdown menu. Below these are two mandatory fields: "* Obs start date" and "* Obs end date". Each date field consists of a date input (format: mm/dd/yyyy) and a time input (format: --:--:-- --). To the right of each date field is a "Start MET (s)" or "Stop MET (s)" input field. The "Search" button is disabled, indicating that the mandatory fields are not yet filled in.

ADQL

Editor to modify and resubmit the query.

The screenshot shows a web browser window with the URL `localhost:8084/ui/#/fermi`. The page title is "jPortal" and the user is logged in as "Massimo Costantini". The interface includes a sidebar with navigation options: "Help", "Settings", "Observation" (with sub-items "Fermi" and "Gaia"), and "Simulation" (with sub-items "Pluto" and "Ramses"). The main content area has tabs for "Search", "ADQL", and "Results". The "ADQL" tab is active, displaying a rich text editor with a toolbar and a text area containing the following SQL query:

```
SELECT *  
FROM Spacecraft  
WHERE ((dateObs > '2024-05-05 00:00:00.0000' AND dateEnd < '2024-05-06 00:00:00.0000') OR (dateObs <= '2024-05-05 00:00:00.0000' AND dateEnd >= '2024-05-05 00:00:00.0000') OR (dateObs <= '2024-05-06 00:00:00.0000' AND dateEnd >= '2024-05-06 00:00:00.0000'));
```

Gaia

Due to the huge amount of data and the number of columns, performance could be a problem.

The screenshot shows a web browser window with the URL `localhost:8084/ui/#/gaia`. The application header includes a hamburger menu, the text "jPortal", and the user name "Massimo Costantini". A left sidebar contains navigation items: "Help", "Settings", "Observation" (with sub-items "Fermi" and "Gaia"), and "Simulation" (with sub-items "Pluto" and "Ramses"). The main content area has tabs for "Search", "ADQL", and "Results", with "Search" selected. A "Horizontal" dropdown menu is open, showing "CompleteSource" selected. Below this, there are several input fields and range selectors for parameters: "sourceId" (empty), "alpha" (Min: 1.61364, Max: 1.63109), "alphaStarError" (Min: 0.0119842, Max: 971.737), "delta" (Min: 0.389658, Max: 0.395537), "deltaError" (Min: 0.0101086, Max: 734.994), "muAlphaStar" (Min: -280.5, Max: 287.5), "muAlphaStarError" (Min: 0.0, Max: 206.8), "muDelta" (Min: -148.85, Max: 200.139), and "muDeltaError" (Min: 0.0, Max: 206.1). The bottom of the page shows the start of a parameter "nuEffLeadInAstro".



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Thanks for your attention!