

HSA Report

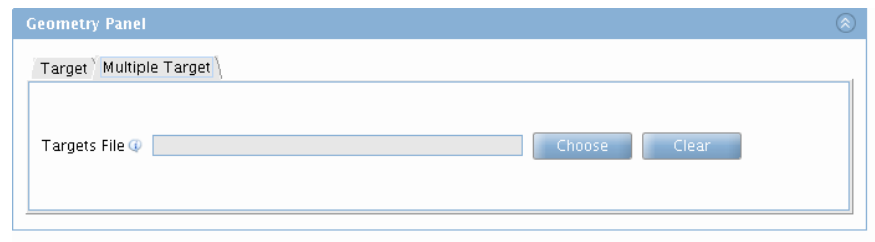
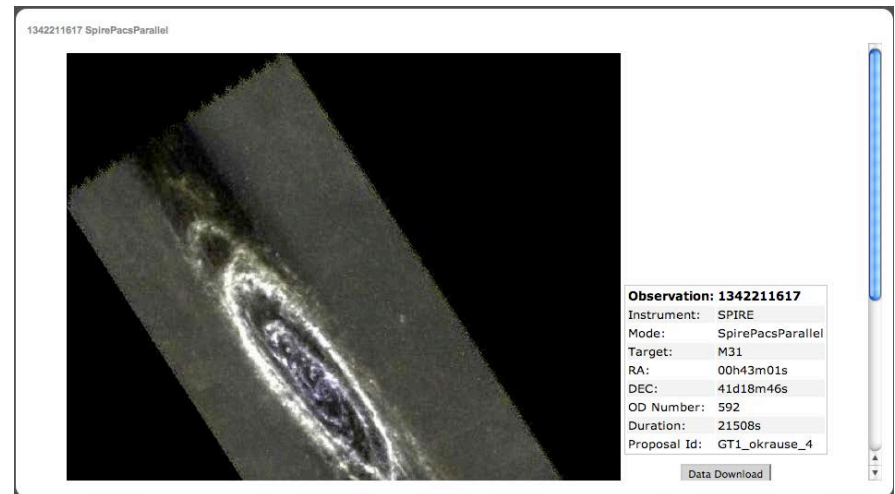
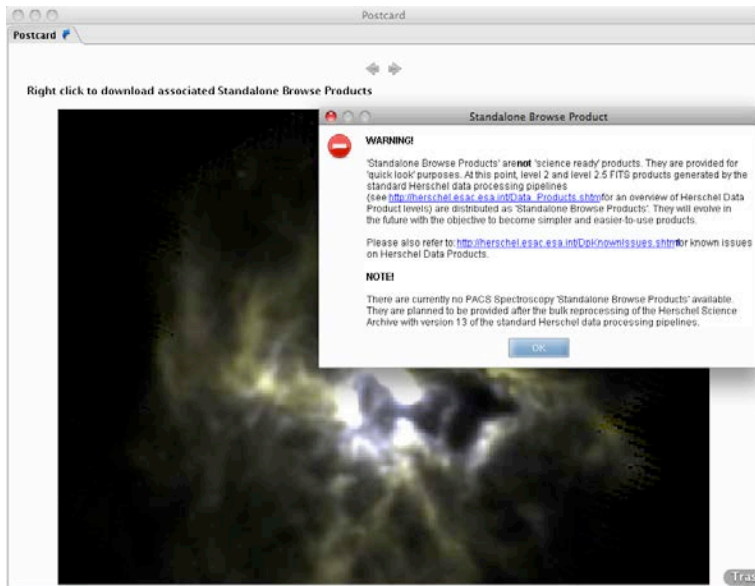
HUG#8 22-23 May 2014

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SRE-OAH**

Current HSA version (5.2.1)



- **HSA 5.2.1** (Patch version of HSA 5.2/March 2014):
 - Distribution of standalone browse products through the HUI and the postcard gallery (→ publication tool, observing log in Vizier...)
 - List of target names and/or coordinates for searching the HUI



Current HSA version (5.2.1)



Standalone browse products are high level data intended for 'quick look' purposes and can be downloaded quickly, without downloading big tarballs of Herschel data. They can be accessed by right-clicking on the postcards that accompany most search results.

Currently, they are basically level2 and level2.5 products produced by the Pipeline

The currently offered 'Standalone Browse Products' are the following FITS products generated by the standard Herschel data processing Pipelines:

HIFI: Level 2 products for HIFI Single Point observations and Level 2.5 products for HIFI Mapping and Spectral Scan observations.

PACS 'Standalone Browse Products' are currently provided only for photometric observations (including the PACS component of SPIRE/PACS Parallel observations). Level 2.5 products are provided when available (generated with the MadMap and PhotProject map makers for observations processed with HCSS 11.1, and with JScanam when processed with HCSS 12.1), and Level 2 products otherwise.

SPIRE: Level 2 products processed with the extended source version of the pipeline for SPIRE photometric observations and Level 2.5 products for the SPIRE component of SPIRE/PACS parallel mode observations generated also with the extended source version of the pipeline. Unapodised Level2 products for SPIRE spectroscopic observations.



- For HCSS 12 (already implemented in HSA 6.0 beta1):
 - PACS photometry are now level2.5 JScanam products
 - SPIRE Parallel mode are level2.5 products

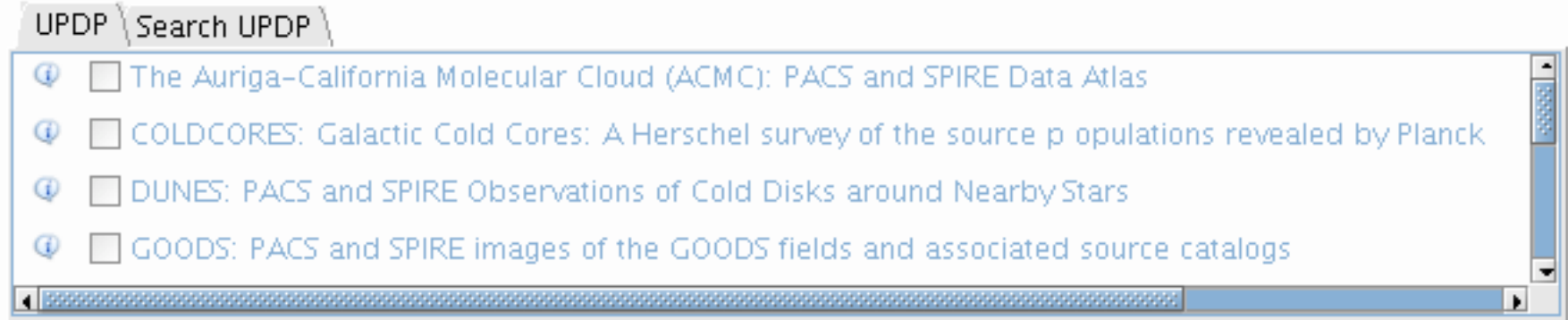
- For HCSS 13:
 - PACS photometry will be unimap maps
 - PACS spectroscopy will be the new generated level2 and level2.5 products. They depend on observing mode (*Chopped line, chopped short range spectroscopy, SED scans*: single pointing or undersampled maps, *Chopped line, chopped short range spectroscopy*: nyquist or oversampled maps, ...). Many different products.

The next version (6.0)



- Update the database:
 - Adding new metadata from the bulk exercise done in HCSS 12 & 12.1 to improve the header products information
 - The database will be populated during the bulk reprocessing with HCSS 12.1
- Improve the mechanism for ingestion of UPDPs (versioning, additional formats...). Currently there are 12 sets available in the HSA, one more pending ingestion and many more in preparation

User Provided Data Products Panel (UPDP)



- HSA 6.0beta1 was installed the 30th of April and is currently under testing with HCSS 12.1RC1

The next version (6.1)



- Advanced Search Panels in the HUI per instrument which will allow to perform complex queries on observation settings

Accepted values are in the range 0 to 234
The number fields can take single numbers, series of numbers, ranges or expressions involving comparison operators.
The syntax for ranges is to place two full stops between the minimum and the maximum.
E.g. 0..234 means: any value from 0 to 234 incl.
To enter a series of values enter them separated by commas. E.g. 234,0 means: values 234 or 0.
To use expressions put an operator before or after the value.
E.g. <= 234 means: all the values smaller or equal to 234
E.g. >4 means: all the values greater than 4 E.g. !=4 means: all the values not equal to 4

SPIRE Expert Panel

Photometry | **Spectroscopy**

Observation Mode **i** Any Small Map Large Map Parallel Mode MULTIPLE

Bias Mode **i** Any Nominal Bright MULTIPLE

Scan Speed **i** Any Nominal Slow Fast MULTIPLE

Scan Direction **i** Any Nominal Orthogonal Scanab MULTIPLE

Number of scans **i** 0 to 234

Position Angle **i** 0 to 360

Length of map (arcmin) **i** 0 to 930

Height of map **i** 0 to 930

Info button

Combo box with fix choices

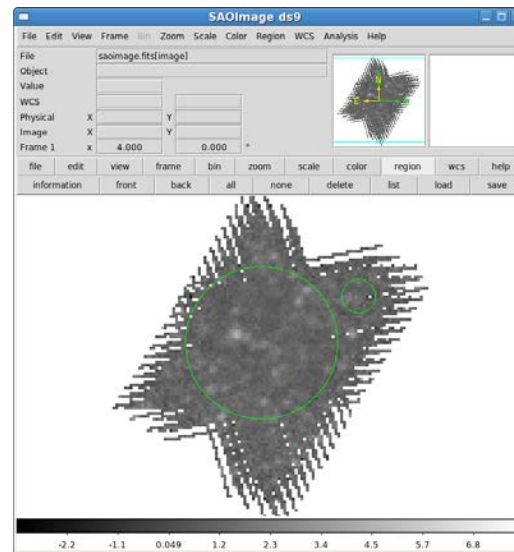
Blank field for the user to enter values. Numbers indicate allowed range

- Add queries in the HUI by: NAIFID, SPG version, Processing level...
- Improve the HTTP error messages

The future (7.0 and beyond)



- Link to publications from the HUI:
Every observation will be linked to the paper(s) in which it is used *ala* ISO
- Improve the geometrical searches → Better approach to the actual FoV per observation



Discussion is on-going on the best approach between a simple rectangular footprint or a very detailed polygon with hundred of sides. Balance between the accuracy of the searching and the query performance

The future (7.0 and beyond)



- Register Herschel products in VO and opening of standalone browse products with VO tools from the HUI directly:
 - Discussion on the VO compatibility of our products
 - Standalone browse products are going to be the VO Herschel registered products? One or several?
 - From standalone browse products to standalone legacy products (“Good products for doing science without any need of using a Herschel specific tool and VO compatible”)
- Ingestion of HPDPs (== Catalogues like the HPSC, calibration models...)
- Uplink + TM products ingestion into the HSA. Versant products are going to be stored in the HSA. The Data processing will use the HSA instead of Versant as the initial source. Discussion on-going...



- Prototype which includes Herschel, Planck, XMM-Newton and Hubble images started end of January
- Ready around summer (June/July) this year
- Exploration through an interactive all-sky visualization engine is being developed
- Herschel all-sky maps and accurate footprints are being generated from Herschel observations