

**Herschel HPDP and associated HUI interface needs meeting #5**  
**Legacy Product Task Force – 29/06/2016 – 2:00pm CEST – Room C031**  
**Minutes of Meeting.**

**Present:** KE, EPu, MR, IV, Samuel Gongora, LC (webex), JGC (webex), DT

1. Review of action items

AI	Description	Actionee	Due date	Comment
HPDP2-AI6	Distribute flow diagram for PACS HPDP generation – now re-scoped as a simplified version of the diagram for the HPDPs curate by Elena	EPu	February	Closed – see attached viewgraphs at link below
	<a href="http://herschel.esac.esa.int/twiki/pub/Public/HPDPDefinitionPage/flowDiagramsHPDPs.pdf">http://herschel.esac.esa.int/twiki/pub/Public/HPDPDefinitionPage/flowDiagramsHPDPs.pdf</a>			

2. Current status of HPDP objectives per instrument and their schedule

**a. Existing or on-going deliveries for HPDPs and ADPs**

*Deliveries considered final*

- HIFI non-averaged Level 2 spectra for pointed mode observations (delivered as a UPDP) – *has already been ingested in the archive*
- HIFI Uncertainty Table Data Products (delivered as HPDP)
- HIFI Trend Analysis Data Products (delivered as ADP)
- HIFI System Noise Temperature Data Products (delivered as ADP)
- HIFI Beam Data Products (delivered as ADP)
- SPIRE-S corrected products for background contamination in sparse mode observations (delivered as HPDP)
- SPIRE-S and SPIRE-P Beam Data Products (delivered as ADP)
- SPIRE-P filter transmission curve Data Products (delivered as ADP)

*On-going/partial deliveries*

- The Galactic Plane PACS-P JScanam King Size maps by Javier Gracia-Carpio is available on VOSpace (HiGAL\_PACS\_JScanam).
- Draft (prototype) delivery made for HIFI Spectral Map HPDPs

**b. Tracking of HPDP/ADP deliveries in Jira**

We will track the progress reg. deliveries of HPDPs and ADPs through dedicated DATA tickets in Jira. Tickets for HIFI, SPIRE and the Observatory have already been created – see:

<http://herschel.esac.esa.int/jira/browse/DATA-78>

<http://herschel.esac.esa.int/jira/browse/DATA-79>

<http://herschel.esac.esa.int/jira/browse/DATA-80>

There is an action on PACS to create similar tickets for the spectrometer and the photometer respectively – see action items at the end of the minutes.

The typical proposed Jira workflow is as follows:

- The product custodian is default assignee. Once a delivery item is available on the /home/updp disk repository (see also MoM of HPDP WG#4 for credential details), the ticket shall be assigned to M. Aberasturi for ingestion. In case of issues with the ingestion, interaction through Jira should reflect the incident and its further resolution (if necessary via re-assignment to the product custodian)
- Once the ingestion is performed successfully, the ticket is assigned to Pedro (this may change in the future) to add the corresponding entry in either the HPDP or ADP cosmos webpages.
- Once the above step is performed, the ticket shall be assigned back to the default product custodian for the (sub-)instrument of interest
- At each step, the table in the description section is updated to reflect the performed actions

### c. Round-table discussion for on-going HPDP definition and generation

#### PACS-P:

- **Jscanam HPDPs:**
  - Javier reports that he has not generated any new product since his initial delivery last month – these are FITS and PNG postcards. His delivery covers all Galactic Plane obsids, as well as those in the Orion and Gould Belts areas.
  - Now that the bulk of the 14.2 work is being (although he will still be busy with the PACS module handover work), he will focus primarily on the generation of a release note covering the data already delivered. If time permits, he will then look into the generation of additional fields like the LMC, SMC, the Virgo cluster, or Fornax (most likely de-scoping all cosmological fields, which will have a Unimap counter-part in any case).
  - We discussed whether it would make any sense to hand-over the know-how to potentially continue the generation of those HPDPs when Javier will no longer be available later in the summer. We agreed that this was not necessary.
- **Revisited deep cosmological fields with Unimap:** B. Altieri reported off-line that he and the team he is working with (at CEA Saclay) are done with 2 out of the 4 contemplated fields (GOODS-N and GOOD-S, ~300 and ~75 obsids resp.). The project has been somewhat in standby but it has recently resumed to tackle the other two fields (UDS and COSMOS deep field, ~70 and ~80 obsids resp.).
- **Mini scan-maps:** Luca has identified a series of observations taken as cross-scan maps, albeit with different phot. filters, resulting in the absence of level 2.5 products. The red observations are, however, available in both scanning directions hence level 2.5-type products can be generated.

- **ADP:** Luca is currently working on the PACS-P beam products

### **SPIRE-P:**

- The SPIRE ICC will generate level 3-type products for the Galactic Plane observations. Unlike the JScanam HPDPs discussed above, these will be large tiles based on a TBD size criterion (e.g. 15 degree overlap). Although the ICC has formally ended, we expect these products to be delivered in the course of the summer. The WP custodian is Andreas Papageorgiou from Cardiff.
- The above effort will not consider the LMC or SMC as those are now available as level 3 from the SPG
- The SPIRE ICC also initially considered the possibility to distribute as HPDPs products of observations affected by isolated instrumental issues. In the end this will not be possible and the observations caveats will be reported in the Quality Summary

### **SPIRE-S:**

No new HPDP identified – please refer to DATA-79 for a complete list of contemplated products.

We noted that a large fraction of the remaining HPDPs and ADPs due for SPIRE will be addressed as deliverable of an EXPRO contract to start at the beginning of September with Rosalind Hopwood (as off-site contractor).

### **HIFI:**

One new HIFI HPDP to deal with the handful of HIFI observations that suffered from some overlooked problems in the 14.1 products – these are tracked under HIFI-6380.

Other than that, no new products identified. On-going work mostly focused on generation of expert-curated Spectral Maps (custodian P. Morris) and deconvolved OFF-spectra (custodian M. Rengel).

### **PACS-S:**

With 14.2 now essentially ready, it is finally possible to identify which HPDPs are still deemed necessary to address given the status of the SPG for the final PACS-S pipeline products:

- **Data in the red leak range (>190  $\mu\text{m}$ ):** those products can be generated in an automated fashion. Samuel Gongora (ESAC trainee) is currently working on it and results are expected on the short term. This is considered top-priority since the products in this range are now totally masked in the SPG products.
- **Data in the blue leak range (<55  $\mu\text{m}$ ):** although no de-leaked RSRF exist in this range, and therefore neither line nor continuum can be properly calibrated, there is some interest in still generating data in the few obsids

that explicitly requested this range to register detection/non-detection. It is still TBD in which category those products end up (HPDP vs UPDP) – Pedro and Eva will be put in the loop (**HPDP-AI2**).

- **Un-chopped observations:** the initial HPDP list contemplated 3 flavours of the un-chopped issue. Only one is kept (systematic calibration subtraction). The other 2 will be the topic of dedicated technical notes.
- **POC spectra for off-centred pt-like sources:** Most of the effort is on identifying the off-centred point-like sources – rest is essentially automated.
- **Non-standard AOT observations:** mostly calibration observations, those are currently ignored by the pipeline and only process up to level 0. 890 obsids have been identified, with ~2/3 on calibration monitoring and repeatability programme.
- **Anomalous obsids:** observations that could not properly process due to some instrumental anomaly, but that contain useful products. Considered low-priority
- **Very bright source:** a one-off case that will be delivered by P. Royer
- **Background subtracted observations:** de-scoped – will be tackled at Quality summary level.
- **Line catalogue:** still in the list but considered low priority (nice-to-have)
- **ADPs:** Elena is currently working on the PACS-S beam products

### 3. AOBs

We should have our next meeting in about 3 months, i.e. beginning of September. This will be the moment to check the first prototype for HSA 8.0, and take stock of progresses following our current master plan. We should avoid the last week of September because of the JWST workshop.

Elena recalls that 14.2 introduced a new observation summary product, in the form of an html file (PACS-6781). She indicated that it would be most welcome that this summary becomes visible in the new HSA interface, typically as complementary information to what is already displayed in the “details” tab.

### 4. New action items:

AI	Description	Actionee	Due date
<b>HPDP5-AI1</b>	Raise DATA Jira tickets to track deliveries of PACS-S and PACS-P HPDPs and ADPs	EPu, LC	July 8 <sup>th</sup>
<b>HPDP5-AI2</b>	Check with Pedro and Eva what would be the best category for PACS-S products in the blue leak region below 55 microns	EPu, DT	Sept 2016 (for next meeting)
<b>HPDP5-AI3</b>	Update HPDP twiki page to reflect latest overview of expected products for each instrument where applicable	All	July 15 <sup>th</sup>