

**Herschel Legacy Product task force meeting #9**  
**19/09/2017- 14:00 CEST - Room C031**

**Minutes of Meeting.**

**Present:** KE, EPu, EV, IV, SFB, DT, JCS (p.t.), PGL (p.t.), AG

1. Review of action items

AI	Description	Actionee	Due date
HPDP8-AI1	Provide list of obsids concerned by PACS-S POC and PACS-S non-standard AOTs HPDPs	EP, KE	11-09-2017 <b>OBSOLETE – DESCOPED HPDP</b>
HPDP8-AI2	Provide list of obsids concerned by “HIFI anomalous obsid” and assess whether QSummary entries are warranted	DT	11-09-2017 <b>OVERDUE</b>
HPDP8-AI3	Provide list of obsids concerned by “PACS-S anomalous obsid” and assess whether QSummary entries are warranted	KE	11-09-2017 <b>See section 2a</b>
HPDP8-AI4	Check completeness of all README html files in the legacy repository	AG	23-07-2017 <b>STATUS?</b>
HPDP8-AI5	Rename the calibration tree ADP, and inform Eva about what to do with the PACS, SPIRE, and Herschel Operational Data ADPs (those won’t have “Full download” options).	DT	10-07-2017 <b>DONE – Email 06/07/2017</b>
HPDP8-AI6	Add the ADP in the data-product-overview cosmos page	EV	10-07-2017 <b>DONE</b>
HPDP8-AI7	New ticket to add column “Data Repository” in ADP interface <a href="https://issues.cosmos.esa.int/socci/browse/HSAPCR-450">https://issues.cosmos.esa.int/socci/browse/HSAPCR-450</a>	EV	Done 05-07-17 <b>DONE</b>
HPDP8-AI8	New ticket to remove “Line Catalogue” from HPDP Data Type list <a href="https://issues.cosmos.esa.int/socci/browse/HSAPCR-449">https://issues.cosmos.esa.int/socci/browse/HSAPCR-449</a>	EV	Done 05-07-17 <b>DONE</b>
HPDP8-AI9	Migrate HPDP attribute table into a GoogleDocs: <a href="https://docs.google.com/document/d/1a9LGolB92yqQoUIjDtmS_y00bd4B9Ghg_64Cmb9z79U/edit?usp=sharing">https://docs.google.com/document/d/1a9LGolB92yqQoUIjDtmS_y00bd4B9Ghg_64Cmb9z79U/edit?usp=sharing</a>	DT	10-07-2017 <b>DONE</b>

2. Status HSA 8.2/Prospect for 8.2:

8.2 has been released and features the interfaces for ADPs and HPDPs. Right now only the SPIRE-P HiRes, PACS-P Unimap and HIFI Spectral Scans are ingested.

Further ingestions are imminent as the corresponding README.xml files are being prepared.

There will be a meeting to discuss the plans for 8.3 on Friday 22<sup>nd</sup>. Among the contemplated items are:

- Development of a catalogue query tool (potentially both for source and line catalogues, as both are relevant to Herschel).
- Publication tool incorporation into the archive
- Small fix on category info (<https://issues.cosmos.esa.int/socci/browse/HSAPCR-476>)
- Small fix on reported size of ADP full download (<https://issues.cosmos.esa.int/socci/browse/HSAPCR-482>)
- Will also be looking at how to fulfill requirement to have Herschel products in the VESPA VO tool<sup>1</sup> via TAP
- Documentation updates: we noted in particular that some additional text should probably be added to document how we deal with catalogues

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

**a. Existing or on-going deliveries for HPDPs and ADPs/review of priorities**

**Highly-Processed Data Products:**

The following table summarizes the status, timeline and priority of currently contemplated HPDPs. Note that a certain number of HPDPs were de-scoped during the last ICS team meeting<sup>2</sup>, as reflected in the table.

HPDP name	Status	Expected delivery	Priority/ custodian
<b>HIFI</b>			
Expert-reduced Spectral SScans	Delivered	06/2017	1 / DT
Expert-reduced Spectral Maps	V2 delivered	<b>V3 end 2017</b>	1 / SFB
Flux Uncertainty error budget tables	Delivered	N/A	2 / DT
OFF spectra data products	Delivered	N/A	2 / DT,MR
Non-averaged level 2 (UPDP)	Delivered	N/A	2 / DT
Spectral line catalogue	On-going	10/2017	3 / DT
Fix of anomalous observations	<b>De-scoped</b>	<del>06/2017</del>	<del>3 / DT</del>
<b>PACS</b>			
PACS-S red leak range	Delivered	03/2017	1 / EP
PACS -S blue edge	TBD	09/2017	2 / EP
PACS-S unchopped baseline correction	TBD	11/2017	2 / KE
PACS-S ON-OFF spectra	On-going	09/2017	2 / KE
PACS-S POC	<b>De-scoped</b>	<del>09/2017</del>	<del>3 / EP</del>
PACS-S fix of anomalous	<b>De-scoped</b>	<del>10/2017</del>	<del>3 / KE</del>

<sup>1</sup> <http://euoplanet-vespa.eu/tools.shtml>

<sup>2</sup> [http://herschel.esac.esa.int/twiki/pub/HSC/ICSNewslettersPage/Notes\\_ICS\\_Team\\_Meeting29Aug2017.pdf](http://herschel.esac.esa.int/twiki/pub/HSC/ICSNewslettersPage/Notes_ICS_Team_Meeting29Aug2017.pdf)

observations			
PACS-S non-standard AOT	<b>De-scoped</b>	09/2017	3 / EP
PACS-S extremely bright sources	<b>As UPDP</b>	Unknown	3 / UPDP
HPPSC	V1 delivered	04/2017	1 /Konk.
PACS-P Unimap HPDP	Delivered	07/2017	1 / LC/DT
PACS-P JScanam HPDP	Delivered	03/2017	3 / JGC
PACS-P Mini-Scan level 2.5	<b>De-scoped</b>	NA	3 / LG
Unimap on cosm. fields revisited	<b>As UPDP</b>	Unknown	3/ UPDP
<b>SPIRE</b>			
SPIRE-S background correction	Delivered	2016, rev. 2017	1 / IV
SPIRE-S SECT and POCT calibration spectra	Delivered	12/2016	1 / RH
SPIRE-S high absResolution spectra	Delivered	12/2016	2 / RH
SPIRE-S non-averaged spectra	Delivered	12/2016	2 / RH, IV
SPIRE-P HiRes products	Delivered	01/2017	2 / IV
SPIRE-S spectral feature catalogue	V1 delivered	<b>V2 10/2017</b>	2 / IV
HSPSC	V2 delivered	<b>V3 ??/2017</b>	2 / IV
SPIRE-P level3 maps of Gal plane	<b>De-scoped</b>	Unknown	3 / ICC
SPIRE-S fix of anomalous observations	<b>De-scoped</b>	07/2017	3 / IV
SPIRE-P Improved Maps	On-going	09/2017	3 /DC, IV
SPIRE-P astrometry corrected maps	Delivered	06/2017	3 / IV

Some detailed inputs on specific HPDPs:

- The SPIRE de-striped maps will be gathered in one single “Improved Maps” HPDP that will merge de-striped maps based on an improved TimeLine Fitter, and those where unruly detectors have been discarded.
- Ivan has finally consolidated the data-set for the background subtracted SPIRE-S HPDP, where multiple products were available for given obsids. A single product has been selected for each obsid. As such this HPDP is now ready for release
- Mapping observations are now part of the V2 of the SPIRE SFC. Ivan is working on the release note and wiki pages updates. Once this is ready we will go through an informal acceptance meeting.
- We agreed the following roadmap for the blue edge HPDP:
  - week of Sep. 18<sup>th</sup>: EPu and KE will finalize the script
  - week of Sep. 25<sup>th</sup>: EPu will run the script on a TBD amount of obsids to gauge the time-scale of the whole processing. Meanwhile she will write the release notes, including representative postcards.
  - Week of Oct. 2<sup>nd</sup>: Depending on finding of the previous week, pass on the bulk processing to Daniela and hand-over the HPDP consolidation to KE (finalization of release note, product organization and copy to relevant places, prepare ingestion and other paperwork).

The following input was provided by Katrina reg. the obsids that would fall under the “PACS fix HPDP” (answer to **HPDP8-AI3**):

- 2 obsids with on and off positions swapped: 1 I have done and is on disc, the other is as easy
- 9 calibration obsids that stopped at 0 but at least 1 I could process manually (mostly automatic work) with the ipipe: either they do process (in which case they are HPDP) or not (in which case no change)
- 11 unchopped that did not work before but should now (PACS forgot about them and they never got added back to SPG list)
- 2 kayako tickets, I forget what for (possibly related to saturation)

We agreed that whenever possible QSummary will be added. Ticket **DATA-143** has been opened to track those. The corresponding action for HIFI (**HPDP8-AI2**) is still open.

Finally, in July we discussed the question of the Parallel wavelength range postcards. Some inquiry was needed with Juergen and the following came out:

- For line scans the prime wavelengths were included and any parallel wavelength ranges that were longer than 2 microns (not a clue why that limit was chosen).
- For range scans prime and parallel are always included (although there may be a 2 micron limit there as well, however, Juergen was not clear on that point).

Katrina will simply add a know issue entry, but no further action will be undertaken.

### **Ancillary Data Products:**

The following table summarizes the status, timeline and priority of currently contemplated ADPs. **In a nutshell, all contemplated ADPs have finally been delivered and made available in the dedicated repository area. They are also all available already through the HSA. ADPs are now in maintenance mode.**

ADP name	Status	Expected delivery	Priority/ Custodian
<b>HIFI</b>			
HIFI Trend Analysis Data Products	Delivered	N/A	3 / DT
HIFI Tsys Data Products	Delivered	N/A	3 / DT
HIFI Beam Data Products	Delivered	N/A	1 / DT
HIFI OBSW images	Delivered	12/2016	3 / DT
HIFI LCUSW and Safety tables	Delivered	12/2016	3 / DT
<del>ILT diplexer data products</del>	<b>De-scoped</b>	01/2017	3 / DT
ILT gascell data products	Delivered	03/2017	3 / DT
SEU monitoring data products	Delivered	01/2017	3 / DT
<b>SPIRE</b>			
SPIRE-S and SPIRE-P Beams	Delivered	N/A	1 / IV
SPIRE-P filter transmission curve	Delivered	N/A	1 / IV
SPIRE-S diffraction losses	Delivered	N/A	1 / IV
SPIRE OBSW images	Delivered	N/A	3 / RH

Trend monitoring data products	Delivered	N/A	3 / IV
CDMS simulator	De-scoped	Best effort basis	3 / RH, IV
Noise spectra for SPIRE-S	Delivered	03/2017	3 / IV, RH
<b>PACS</b>			
PACS-P and PACS-S Beams	Delivered	04/2017	1 / LC, EP
PACS-P filter transmission curve	Delivered	04/2017	1 / LC
PACS OBSW (CDU and SPU)	Delivered	12/2016	3 / ICC
Trend monitoring data products	Delivered	12/2016	3 / ICC
SEU monitoring/log	Delivered	12/2016	3 / ICC
PACS-S calibration source spectra	Delivered	07/2017	3 / DT

### **b. Generation and delivery of README files for HPDP ingestion into the HSA**

Each HPDP custodian is responsible for the generation of README xml files required to ingest the corresponding products into the archive in the desired format. Together with this xml file, all products aimed at being ingested need to be provided in a single directory (typically on the updp account) and in a flat structure. This includes the Release note.

The README file is essentially a list of structures (“taset”) gathering all files (data, images, etc) that shall be associated with a given obsid. Those will be provided together when e.g. a user will download the set of data associated with an obsid showing up in a query result on the HPDP panel. The taset contains different keywords allowing to specify the products of interest, as well as the postcards, with provision for multiple postcards, but only one serving as main postcards (i.e. the one displayed as the equivalent of the browse product).

In order to ease the generation of this README file, esp. for HPDPs where thousands of obsids need to be registered in the file, Ivan has prepared an automatic generation script in Python. The script in its latest version, and a set of instructions can be found on the HPDP wiki page:

[http://herschel.esac.esa.int/twiki/pub/Public/HPDPDefinitionPage/make\\_hpdp\\_xml\\_v3.py.txt](http://herschel.esac.esa.int/twiki/pub/Public/HPDPDefinitionPage/make_hpdp_xml_v3.py.txt)  
[http://herschel.esac.esa.int/twiki/pub/Public/HPDPDefinitionPage/README-make\\_xml.md](http://herschel.esac.esa.int/twiki/pub/Public/HPDPDefinitionPage/README-make_xml.md)

Please have a go at the script with your HPDPs and check with Eva that the generated output is fit for the purpose. Contact Ivan in case the script does not allow to map all files contemplated in your HPDPs, or if you need additional functionalities in the script.

### **c. Status of legacy repository**

Essentially covered by action **HPDP8-AI4**. Alvar has sent a very extensive sanity check report that contains:

- Spell checks: David will take care of the updates - **HPDP9-AI1**
- Broken links: David will contact the concerned custodians to fix it - **HPDP9-AI2**

- Reformatted html README files: Alvar provided a file with the refurbished files but they were not replaced yet. DT requested access to the hsclegscy@heropl02 for Alvar.

Proposal is to service points 1 and 2 first, then have Alvar redo the html reformatting and copy them over (**HPDP9-AI3**).

#### d. Status of announcement of HPDPs/ADPs to the user community

Dedicated Cosmos pages have been prepared in support for the announcement in eNews of the availability of the corresponding HPDPs. These concern:

- <https://www.cosmos.esa.int/web/herschel/pacs-jscanam-mosaics-hpdp>
- <https://www.cosmos.esa.int/web/herschel/pacs-unimap-mosaics-hpdp>
- <https://www.cosmos.esa.int/web/herschel/hifi-spectral-scans-hpdp>
- <https://www.cosmos.esa.int/web/herschel/spire-high-resolution-maps>

We will try to ingest all those HPDPs and only then will we make the announcement. The target is for Sept 29<sup>th</sup> at latest. We will still wait for V2 of the SFC to announce it (*note post meeting: the last 3 have been ingested as of Sept. 20<sup>th</sup>*).

#### 4. Discussion: Legacy Data Products

The new attributes Better/Alternative/Complementary will fulfill the initial idea for having Legacy Data Products. **As such no extra work is needed on this item.**

#### 5. AOBs/next meeting

The next and last HPDP tag-up meeting should take place in December 2017. It will essentially be a wrap-up of the whole Legacy Product Task Force activity with a focus on the hand-over to the HSC team that will still be active in 2018.

#### 6. New and old action items:

AI	Description	Actionee	Due date
HPDP9-AI1	Fix typos on README.html following input from Alvar	DT	29/09/2017
HPDP9-AI2	Fix broken links on README.html following input from Alvar	DT/IV	29/09/2017
HPDP9-AI3	Reformat all README.html and copy to repository	AG	06/10/2017
HPDP9-AI4	Update README.xml for HiRes in order to use the html release note instead of the markdown	IV	29/09/2017