



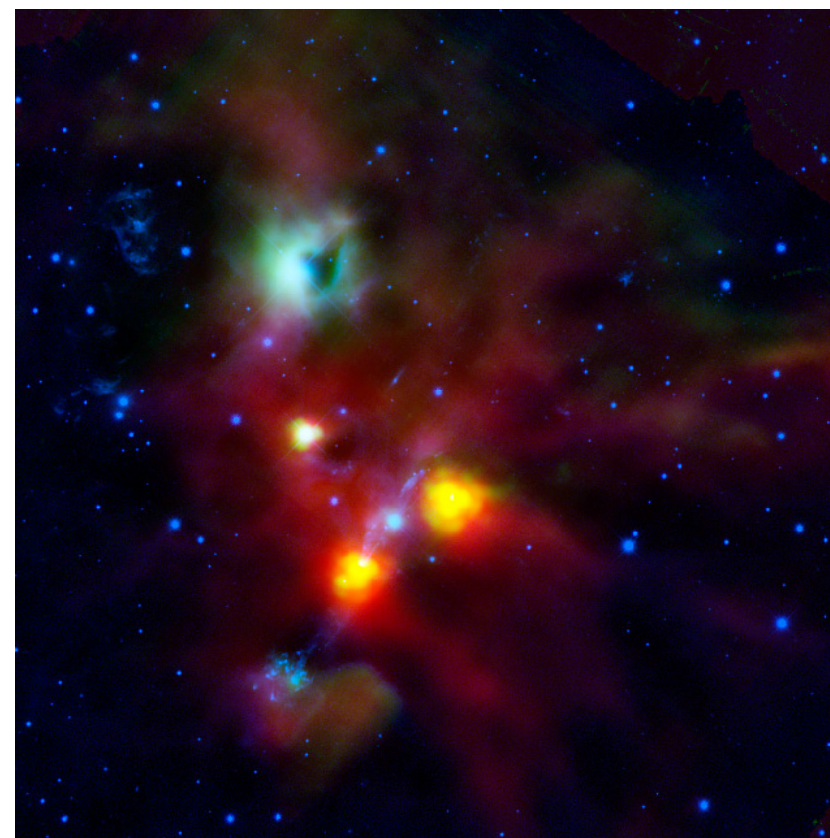
Herschel Data Processing Status and Plans

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Outline

- Overview of Herschel Data Processing
- Data Processing Status
- Schedule for future HCSS versions
- Reactions to HUG recommendations
- Priorities of DP development
- Bulk reprocessing
- Wishes and Questions



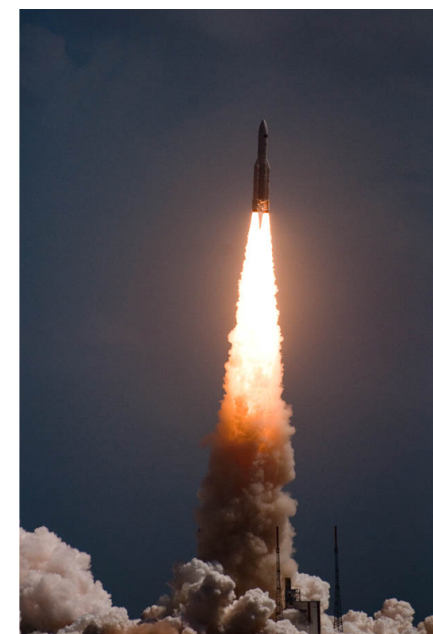
NGC 1999 observed by Herschel

ESA / PACS & SPIRE Consortium, Tom Megeath,
NASA/JPL-Caltech/Univ. of Toledo



Overview of Herschel Data Processing

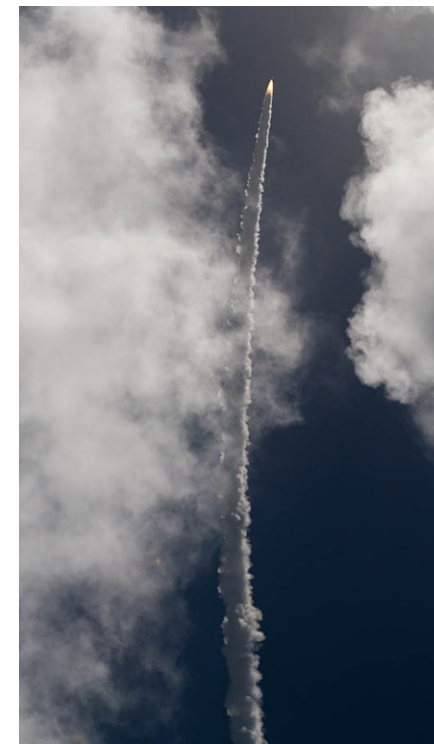
- The system combines for the first time data retrieval, pipeline execution and scientific analysis in one single environment
- All tools for data reduction and analysis, e.g. also the expert applications for e.g. instrument calibration are part of the Data Processing System. Therefore the community has access to the same system as the instrument experts
- The Herschel Data Processing software is coded in Java/ Jython to be license free and portable for different operating systems
- Formal support is provided for Windows XP, Vista and Windows 7, Linux, Mac OS X 10.5 ("Leopard") and Mac OS X 10.6 ("Snow Leopard")
- Herschel Science Centre (ESA), the Instrument Control Centres (HIFI, PACS and SPIRE) and NHSC jointly manage and contribute to the Herschel Data Processing System





Overview of Herschel Data Processing

- Herschel Data Processing is a major project, with over 200 contributors and currently 60 full-time equivalents working on calibration, coding, documentation, quality control, testing and tutoring
- Very distributed development – we work 24/5 (and often 24/7) on Herschel Data Processing System
- 300 data processing related software tickets are raised – and resolved – each month
- A major HIPE version is released around each three months. This is currently HIPE 5.0
- Minor HIPE versions (currently 5.3) are released around each three weeks. These serve also as the operational version to generate the standard products
- All releases can be downloaded via http://herschel.esac.esa.int/HIPE_download.shtml
- Latest HIPE developer releases are available via http://herschel.esac.esa.int/CIB_disclaimer.html



Data Processing Status

- **HCSS 6.0 was branched off 11th of January; the release of HCSS 6.0 is forecasted to 1st of March. The HCSS validation procedure was reviewed to speed up the validation process, e.g. we had co-location of astronomers and key developers at ESAC during the acceptance test period.**
- **Few highlights of HIPE improvements**
 - **Gathering user feedback**
 - Sending crash reports
 - Possibility to leave comments on HIPE and documentation
 - **Autocompletion in the console has been improved**
 - **Jobs can be shown and cancelled individually via status progress indicator**
 - **Support of plug-ins**
 - **Updates of documentation start-up page, links to data reduction guides from Help menu**

Highlights of HIFI improvements for HCSS 6

- Purity of band 5b
- Configurable HIFI pipeline
- Spectrum Toolbox stabilisation (SpectrumExplorer, SpectrumFitter and all Spectral Tools integrated in HIPE)
- Introduction of HIFI Cookbook (in 5.0) and continued documentation updates
- Trend monitoring for HIFI Housekeeping parameters and pipeline processed results



Highlights of PACS improvements for HCSS 6

- **Interactive pipeline scripts**
 - Restructuring of menus reflecting observation type and astronomer's science case (extended/point source, raster/pointed, ...)
 - Overhaul of interactive pipeline scripts, convenient end-end processing to publication-quality spectra and maps
 - chopped spectroscopy (line scans, SEDs)
 - photometer scan maps
 - Two-stage with masking high signals before highpass filter
 - Madmap fully available and working on scan/cross-scan pairs
 - Significant improvements in the SSO astrometry
 - chopped photometry
- **Spectrum explorer / PACS products integration: Spectrum explorer and tools (fitting, ...) can now be used for all PACS products**
- **Wavelength calibration based on in-orbit data / polynomial fits to grating position-wavelength relation**
- **Cross-scan pipeline processing combines two observations into a higher quality mosaic**
- **Pipeline quality flagging**
 - Speedbump detection (photometer scan maps)
 - DecMec anomaly H_SC-70 detection
- **Reference documentation and data reduction guide**
- **Reduction of size of user build**
- **Notification when new calibration files are available**

Highlights of SPIRE improvements for HCSS 6

- Jump detection in signal timelines, allowing better temperature drift correction
- New phase correction algorithm improves small-scale spectral shape
- Improved spectral cube creation is now done with the photometer naive map-maker
- Baseline correction/destriping algorithm. Work on this area is ongoing
- Level 1 spectral products now contain all measured extended flux-calibrated spectra rather than the average spectra per detector
- Level 2 spectral cubes are now created by averaging flux values within each pixel in the output map

HIFI Data Processing Status for HCSS 6.0

AOT	Observing Mode	L2 Product Science useful	QC Avail (Flags/Docs)	HSA Browse Product	HIPE scripts Usable	Planned/needed improvements
Single Point	DBS	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product: expected in v7.0
Single Point	Freq./Pos Switch	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product expected in v7.0
Single Point	Load Chop	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product expected in v7.0
Spectral Scan	DBS	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product expected in v7.0
Spectral Scan	Freq./Pos Switch	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product
Spectral Scan	Load Chop	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product
Mapping	DBS Cross/Raster	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product
Mapping	OTF Freq./Pos Switch	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product
Mapping	OTF Load Chop	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product

green : OK (for current state of the mission) orange: limited shortcomings red: not available/not useful

HIFI Data Processing Status for HCSS 6.0

AOT	Observing Mode	L2 Product Science useful	QC Avail (Flags/Docs)	HSA Browse Product	HIPE scripts Usable	Planned/needed improvements
Single Point	DBS	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product: expected in v7.0
Single Point	Freq./Pos Switch	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product expected in v7.0
Single Point	Load Chop	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product expected in v7.0
Spectral Scan	DBS	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product expected in v7.0
Spectral Scan	Freq./Pos Switch	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product expected in v7.0
Spectral Scan	Load Chop	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product expected in v7.0
Mapping	DBS Cross/Raster	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product expected in v7.0
Mapping	OTF Freq./Pos Switch	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product expected in v7.0
Mapping	OTF Load Chop	Yes	Yes	No	Yes	QC Area: spur flagging: expected in v7.0 Browse Product expected in v7.0

Do you concur with this assessment?

green : OK (for current state of the mission) orange: limited shortcomings red: not available/not useful

PACS Data Processing Status for HCSS 6.0

AOT	Observing Mode	L2 Product Science useful	QC Avail (Flags/Docs)	HSA Browse Product	HIPE scripts Usable	Planned/needed improvements
Photometer	Scan Map	Yes L2.5 under test.	Yes	No	Yes	2 nd order deglitching/highpass filter Speed bump flag/QC flag threshold Browse Product
Photometer	Point Source (not recommended observing mode)	Yes L2.5 under test.	Yes	No	Yes	2 nd order deglitching/highpass filter Speed bump flag/QC flag threshold Browse Product
Photometer	Parallel	Yes L2.5 under test.	Yes	No	Yes	2 nd order deglitching/highpass filter Speed bump flag/QC flag threshold Browse Product
Line Spec	Pointed Mapping	No	Yes	No	Yes	calibration the RSRF/extended sources flatfielding QC flag threshold Browse Product
Range Spec	Pointed Mapping	No	Yes	No	Yes	calibration the RSRF/extended sources flatfielding QC flag threshold Browse Product
Unchopped	Pointed Mapping	No	Yes	No	Yes	calibration the RSRF/extended sources flatfielding QC flag threshold Browse Product

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PACS Data Processing Status for HCSS 6.0

AOT	Observing Mode	L2 Product Science useful	QC Avail (Flags/Docs)	HSA Browse Product	HIPE scripts Usable	Planned/needed improvements
Photometer	Scan Map	Yes L2.5 under test.	Yes	No	Yes	2 nd order deglitching/highpass filter Speed bump flag/QC flag threshold Browse Product
Photometer	Point Source (not recommended observing mode)	Yes L2.5 under test.	Yes	No	Yes	2 nd order deglitching/highpass filter Speed bump flag/QC flag threshold Browse Product
Photometer	Parallel	Yes L2.5 under test.	Yes	No	Yes	2 nd order deglitching/highpass filter Speed bump flag/QC flag threshold Browse Product
Unchopped	Pointed Mapping	No	Yes	No	Yes	calibration the RSRF/extended sources flatfielding QC flag threshold Browse Product
Range Spec	Pointed Mapping	No	Yes	No	Yes	calibration the RSRF/extended sources flatfielding QC flag threshold Browse Product
Unchopped	Pointed Mapping	No	Yes	No	Yes	calibration the RSRF/extended sources flatfielding QC flag threshold Browse Product

Do you concur with this assessment?

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SPIRE Data Processing Status for HCSS 6.0

AOT	Observing Mode	L2 Product Science useful	QC Avail (Flags/Docs)	HSA Browse Product	HIPE scripts Usable	Planned/needed improvements
Photometer	Point Source (POF2)	Yes	Yes	Yes	Yes	Calibration of extended sources (baseline removal) QC flag thresholds under revision
Photometer	Large Map (POF5)	Yes	Yes	Yes	Yes	Calibration of extended sources (baseline removal) QC flag thresholds under revision
Photometer	Parallel (POF9)	Yes	Yes	Yes	Yes	Calibration of extended sources (baseline removal) QC flag thresholds under revision
Photometer	Small Map (POF10)	Yes	Yes	Yes	Yes	Calibration of extended sources (baseline removal) QC flag thresholds under revision
Spectrometer	SOF1	Yes	Yes	Yes	Yes	Bright source mode pipeline QC flag thresholds under revision
Spectrometer	SOF2	Yes	Yes	Yes	Yes	Bright source mode pipeline QC flag thresholds under revision

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SPIRE Data Processing Status for HCSS 6.0

AOT	Observing Mode	L2 Product Science useful	QC Avail (Flags/Docs)	HSA Browse Product	HIPE scripts Usable	Planned/needed improvements
Photometer	Point Source (POF2)	Yes	Yes	Yes	Yes	Calibration of extended sources (baseline removal) QC flag thresholds under revision
Photometer	Large Map (POF5)	Yes	Yes	Yes	Yes	Calibration of extended sources (baseline removal) QC flag thresholds under revision
Photometer	Parallel (POF9)	Yes	Yes	Yes	Yes	Calibration of extended sources (baseline removal) QC flag thresholds under revision
Photometer	Small Map (POF10)	Yes	Yes	Yes	Yes	Calibration of extended sources (baseline removal) QC flag thresholds under revision
Spectrometer	SOF1	Yes	Yes	Yes	Yes	Bright source mode pipeline QC flag thresholds under revision
Spectrometer	SOF2	Yes	Yes	Yes	Yes	Bright source mode pipeline QC flag thresholds under revision

Do you concur with this assessment?

green : OK (for current state of the mission) orange: limited shortcomings red: not available/not useful



Miscellaneous

- We performed 7 user/developer workshops (HIFI, HIPE general, PACS photometry and PACS spectroscopy, SPIRE photometry and SPIRE spectroscopy).
These workshops were considered very helpful by all participants – for the users as they learned from the experts, and for the experts as they understood the needs/problems of the users
- NHSC Workshop “An introduction to Herschel Data Processing for new users” was held during the last two weeks. It went very well
- Astronomer Acceptance Testing of HIPE 6 was held last two weeks. The minutes can be found at:

HIFI:

<http://herschel.esac.esa.int/twiki/bin/view/Hcss/HifiHcss6AstronomerAcceptanceTesting>

PACS:

<http://herschel.esac.esa.int/twiki/bin/view/Hcss/PacsHcss6AstronomerAcceptanceTesting>

SPIRE:

<http://www.herschel.be/twiki/bin/view/Hcss/SpireHcss6AstronomerAcceptanceTesting>

Schedule for future HCSS and HSA versions

- | | |
|------------------------|--------------------------------|
| ➤ 14 – 18 March 2011 | DP Workshop @ ESAC |
| ➤ 5th of April 2011 | Branch-off point for HCSS 7.0 |
| ➤ Spring 2011 | Release of eHSA 4.0 |
| ➤ 28th of June 2011 | Branch off point for HCSS 8.0 |
| ➤ 4th of October 2011 | Branch off point for HCSS 9.0 |
| ➤ 17th of January 2012 | Branch off point for HCSS 10.0 |



Foreseen improvements for HCSS

The major part of the in-persona meeting Herschel Data Processing Management Group Meeting #79 was dedicated to address the recommendations of Herschel Users' Group meeting #1. All your recommendations were accepted, and are part of our work plan.

Our detailed response was presented in the Project Scientist's report to the Herschel Users' Group.

For your reference I address HDPMG's reaction for each DP relevant recommendation.

HUG recommendations and DP development priorities

- **Recommendation 4.1 (DP general):** In addition to the current standing committees and discussion groups, the HSC should consider facilitating a small number of working groups or "tiger teams" to solve specific data processing and/or calibration problems which are imposing science bottlenecks for many projects. These teams should be limited in size, comprising expert members of a few KP teams along with experts from the instrument teams and/or the HSC

The expertise lies in the calibration steering group who will take an active role to follow this up

HUG recommendations and DP development priorities

- **Recommendation 4.2 (DP general): The Committee endorses the current policy of the HSC to support the user releases of HIPE as the primary software for observers, while making available the developer releases on a shared risk basis. User releases should be documented with release notes which summarise all changes and advise on which types of data should be considered for reprocessing. More complete documentation for the developer releases is not practical**

The Community Support Group is planning the creation of instrument-specific pages with high-level user information on calibration and data processing. HDPMG will raise internal tickets to improve the information in the web pages for Data Processing. We will continue our support for both HTML and PDF



HUG recommendations and DP development priorities

- **Recommendation 4.3 (DP general):** The current web pages on data processing should be expanded to include data processing manuals for all of the instruments, "cookbooks" providing guides to the most commonly used scripts, and a page with links to user-contributed software

HDPMG recommends that that the top-level documentation should be improved to refer to scripts as cookbooks. We will continue to annotate our scripts to explain Herschel data processing so they are self-explanatory, and can be adapted to the needs of individual scientific goals. The existing HIFI cookbook will be maintained, as the PACS and SPIRE Data Reduction Guide as 1st level document for reducing PACS and SPIRE data

HUG recommendations and DP development priorities

- **Recommendation 4.4 (DP general): The Committee welcomes the expansion of the DPUG to include outside Herschel users, and the planned user survey. The HUG is prepared to assist by reviewing the survey questionnaire and discussing the results with the DPUG Chair at all future meetings**

The questionnaire was distributed out, and the first answers arrived already. HDPMG welcomes HUG's assistance to assist reviewing the results of the user's questionnaire, and HUG's invitation to the DPUG chair.

HUG recommendations and DP development priorities

- **Recommendation 4.5 (DP general): Regular communication between the DPUG and this Committee should be established, with regular reports and from the DPUG Chair at the HUG meetings, and possibly with the appointment of an outside DPUG member to the HUG**

HDPMG welcomes a strengthened communication. In addition DPUG would welcome if a HUG member could attend DPUG meetings

HUG recommendations and DP development priorities

- **Recommendation 4.6 (DP general):** The HSC might review the status of the Data Processing Interest Groups, and either reinvigorate the groups or disband them (in which case their functions will need to be addressed elsewhere). The data processing workshops remain a highly valued activity by the observer community, and should continue as long as demand remains

HDPMG completely supports to continue the data processing workshops as long as demand remains. As Spitzer's Interest Groups died of a lack of community contributions HDPMG and DPUG discussed which course of action to take. We decided to feed the Data Processing Interest Lists with specific issues like sending out advanced user scripts, or a list of various mapping packages, and review the situation later. One other option is a password-protected Twiki page that we can allow registered users to access.



HUG recommendations and DP development priorities

- **Recommendation 5.1 (HIFI): An important issue raised by users is the continued support for exporting data to other formats, in particular the CLASS software which is widely used for reduction and analysis of heterodyne sub-mm data. Such an export is recommended to be provided for all observing modes, including deconvolved spectral scans**

The export of all HIFI observing mode data to the CLASS package has been available via the HiClass software package since the beginning of the mission with the exception of a deconvolved spectral survey spectrum. The ability to also export the deconvolved HIFI spectrum is being investigated with a goal release in HCSS 7.



HUG recommendations and DP development priorities

- **Recommendation 5.2 (HIFI):** Currently, a number of observations are affected by baseline ripples. In specific high-continuum, line-rich sources it is nearly impossible to remove such ripples, since no clear baseline is present in the observations. It is recommended that further work is being put into removing these ripples in the **Level 1 products**

Removing a baseline in a line-rich environment is a very challenging task. The HIFI task “fit-fringe” is continuously updated with the latest knowledge. Looking into alternative calibration schemes is an ongoing work package within the HIFI ICC. An initial report is expected within the next few weeks.

HUG recommendations and DP development priorities

- **Recommendation 5.3 (HIFI):** The absolute instrument calibration is currently limited by the sideband gain calibration. For bands 1, 2 and 5, this calibration causes uncertainties of less than 10%, while it is <30% for the diplexer bands 3, 4, 6 and 7. The calibration of these bands is based on what was obtained from ground tests, and it is recommended that more effort be put into calibrating these bands. If the target calibration uncertainties have evolved since the pre-launch target of 3%, it would be helpful to pass on the information to observers

HIFI spent efforts to understand the in-flight sideband gain calibration. The real tool is investigation of ground-based investigations. A significant advancement of our knowledge of the side band ratio will be achieved with the results of an ongoing PhD project

HUG recommendations and DP development priorities

- **Recommendation 6.1 (SPIRE):** The highest observers priority for SPIRE is improved calibrations and data processing for FTS spectroscopy, for single-pixel and fully sampled mapping applications

The SPIRE FTS group is working on these issues There should be a big improvement for 6.0 already. The pipeline does not work yet well for bright sources. This temperature based pipeline might be available in HCSS 7 or 8.



HUG recommendations and DP development priorities

- **Recommendation 6.2 (SPIRE):** Processing and calibration of SPIRE scan maps is in a relatively mature state, but a priority for many projects is improved calibrations (with uncertainties) and tests of mapping of extended diffuse emission

A group led by B. Ali (NHSC) was set up during the calibration WS to deal with PACS extended emission. The group dealing with SPIRE extended emission has a cross-calibration effort with Planck and is led by B. Schulz (NHSC). This is an ongoing exercise that might well continue into the post-operational phase

HUG recommendations and DP development priorities

- **Recommendation 7.1 (PACS):** The highest priority for PACS imaging is the calibration and external validation of mapping of extended emission. This problem might well benefit from the "tiger team" working group approach recommended earlier

The issues surrounding PACS extended-source calibration appear to be understood. Currently it is believed that the resolution resides in using an adequate PSF in deconvolution. New pixel calibration files are expected to be delivered in approximately 1 month, together with updated PSFs and a new point source extraction algorithm, adapted to new updates PSFs. In addition a workshop is planned to discuss this issue with Key Programme members in ESAC in April 2011.



HUG recommendations and DP development priorities

- **Recommendation 7.1 (PACS):** The highest priority for PACS imaging is the calibration and external validation of mapping of extended emission. This problem might well benefit from the "tiger team" working group approach recommended earlier

The issues surrounding PACS extended-source calibration appear to be understood. Currently it is believed that the resolution resides in using an

See presentation by B. Altieri later today

adapted PSF in the reduction. The pixel calibration files are expected to be delivered in approximately 1 month, together with updated PSFs and a new point source extraction algorithm, adapted to new updates PSFs. In addition a workshop is planned to discuss this issue with Key Programme members in ESAC in April 2011.



HUG recommendations and DP development priorities

- **Recommendation 7.2 (PACS):** The highest priorities for PACS spectroscopy are the release of scripts and software for the end-to-end processing of spectra (full-range scans in particular), and the associated calibrations, including flux and spectral response calibrations. Calibration and processing of a real spectral mapping is also needed

This is addressed in HCSS 6.0 for chopped spectra. We hope that a tool for unchopped spectroscopy can be provided in 2 months, with the tested version ready for HCSS 7.0. This also includes spectroscopy of extended sources. Specific measurements were taken and are currently analysed. Models of PSFs will be released in this timescale, too

HUG recommendations and DP development priorities

- **Recommendation 7.3 (PACS):** Other important priorities for PACS imaging include improved removal of artefacts including striping from scan maps and astrometric issues (elongated images) for moving target observations

Software tools (MADMap and photproject) exist in HIPE 6.0. In addition there is also the external scanamorphous tool. In one IPIPE script we provide the functionality to process moving target observations. Further improved functionality should be available with HCSS 7.0

HUG recommendations and DP development priorities

- **Recommendation 7.4 (PACS):** In order to ensure full exploitation of the spectroscopic capabilities of PACS and SPIRE the Project should endeavour to enable end-to-end processing of calibrated full-range spectra with both instruments (if possible in 2D) in advance of the OT2 AO call

Following an initial analysis this seems to be a documentation issue. We hope to provide the documentation by HCSS 7

Foreseen improvements for user tools, HIPE and pipeline system

- **Reduce HIPE freezes and hangs**
- **Improvement of calibration and data reduction pipelines**
- **Improvement of user friendliness**
- **Data manager for Herschel spectra to improve the robustness of spectrum explorer interface**
- **Taskvariable association and useful tooltips**
- **Simplified data input/output. Access to reprocessed data.**
- **Addition of useful example scripts to the build**
- **Combination of data from the different Herschel instruments**

Foreseen improvements for user tools, HIPE and pipeline system

- **Harmonization of final spectra and VO. Workflow between Herschel products/HIPE and VO**
- **Publication quality plots**
- **Upgrade to Jython 2.5**
- **Improved automatic testing to increase confidence in developer builds and speed-up delivery cycle for releases to the community**
- **Improvement of code quality so the system will be maintainable with the reduced manpower we can expect during post-operations**

Foreseen improvements for HIFI

- Spectral maps (OTF and DBS Raster)
- Inclusion of uplink information how the map has been carried out on the sky
- Implementation of rotated maps (non-square RA / Dec grid)
- Exporting the deconvolved HIFI spectrum to CLASS
- Implementation of browse products and postcards for the Herschel Science Archive

Foreseen improvements for PACS

- **Calibration and mapping of extended emission**
- **Tool to handle unchopped spectroscopy, including spectroscopy of extended sources and models of PSFs**
- **Flatfielding for spectroscopy**
- **Improved removal of artefacts including striping from scan maps and elongated images for moving target observations**
- **Improvement of quality control criteria and rules**
- **Implementation of browse products and postcards for the Herschel Science Archive**

Foreseen improvements for SPIRE

- **Baseline correction/destriping algorithm (photometer)**
- **2nd level deglitching (photometer)**
- **Correction of electrical crosstalk**
- **Zero point calibration of scan maps**
- **Bright source mode pipeline (spectrometer)**
- **Documentation how to perform end-to-end processing of calibrated full-range spectra with PACS and SPIRE**

Bulk and on-demand reprocessing

- Currently we perform a bulk reprocessing twice a year using an even HCSS version (HCSS 4, 6, 8, ...)
- The goal is to process 12 ODs/day
- With HCSS 2.0 we could process 8 ODs/day
- With HCSS 4.1 we were hampered by several problems, reducing the throughput to 4 ODs/day
- Bulk reprocessing with HCSS 4 is nearly complete
- Significant improvements in GRID software and access to the Herschel Science Archive should lead to a much faster reprocessing with HCSS 6
- Users can request reprocessing of observations with the latest operational release using on-demand processing



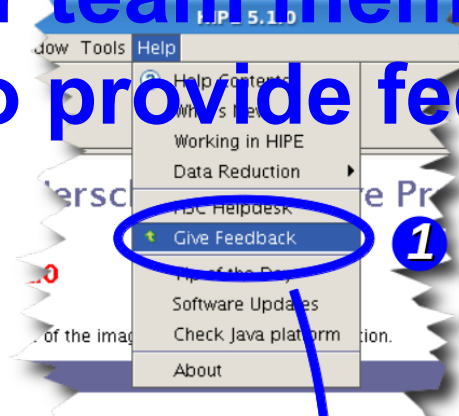
**What else can
you do for HIPE?**

Encourage your team members and colleagues to provide feedback

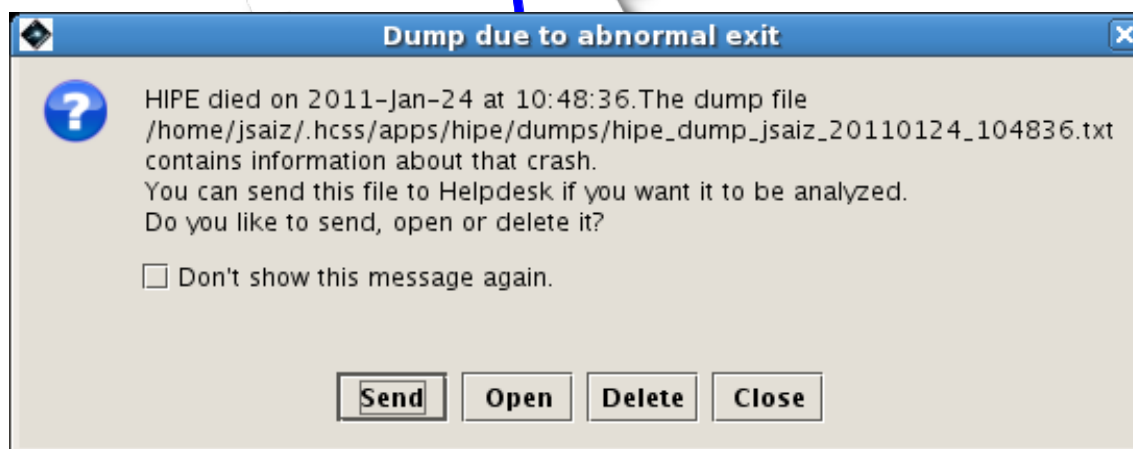
... on documentation

... on HIPE

... on HIPE crashes



1 Click here



Dear HSC Helpdesk:

2 Enter feedback

Operating System: Linux 2.6.18-194.3.1.el5 (amd64)
HIPE Build #: 5.0.1894
HIPE Version: 5.0.1894

HIPE



Encourage timely contact to the (N)HSC helpdesk in case of issues, questions and suggestions

Encourage replies to the DP Questionnaire

Encourage participation in the Herschel Data Processing Interest Lists and User's Group.

Encourage participation in the HIPE user/developer workshops

Encourage collaboration to HIPE development as contributor and tester

creating "Welcome" view

My questions to the Herschel's User Group

- **At the beginning of the data processing development we set the goal that the higher-level data products shall be Virtual Observatory compliant and, as soon as possible, directly suitable for scientific exploitation. What are your expectations regarding quality of products generated by the standard processing pipeline?**
- **Would you be interested that we provide a choice of pipelines for on-demand processing where a user can select a mode tuned to the relevant science goal?**
- **How important would you consider looking into memory requirements/performance improvements for PACS processing?**

Your questions to me?

