

The Herschel Documentation Legacy

Exploiting the Herschel Science Archive On-line Workshop
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Background on the problem – why are we doing this?

1. Why do we need a documentation legacy?
2. What do we mean by “legacy documentation”?
3. How have we conserved the legacy documentation?
4. Documentation conservation and legacy requirements

Implementation – what are we providing to users?

5. Welcome to the Herschel Legacy Documentation Archive (**HELL** – The **Herschel Explanatory Legacy Library**).
6. Release schedule.

Why do we Need a Documentation Legacy?

- Our mission statement



Experience from previous space missions (e.g. IRAS, or Apollo) is that people will be working with Herschel data in new & innovative ways for several decades.


- In 30 years time, even the youngest members of the Herschel Operations team will have retired.
- Documentation will be the only available resource to understand how data was obtained.
 - Nobody will be able to pick up the telephone, or send an e-mail and ask “What happened on OD-324? There is something odd about the PACS data for TT Cyg taken that day.” (A SIAM issue)
 - Collective memories are already fading rapidly 3 years after End of Helium, as the distance from events increases.
 - *The figure of **Mission Archeologist** is becoming increasingly important.*

We have a duty to identify and preserve the most essential information required to be able to understand the Herschel mission and its data as far into the future as is required.



How have we conserved “Legacy documentation”?




1. Take stock of what is available and where it is.
 - i. Around 100 000 Herschel documents were generated in total  Too much information! We have to be selective about what we keep.
2. Decide what needs to be conserved and what can be neglected.
3. Decide what is missing (and who should provide it).
4. Compile the documentation.
5. Prioritise the content
 - i. Not everything is equally important – The “slush pile” is maintained on a best efforts basis only.
 - ii. Decide what is the most essential reading for a future users to understand Herschel and its data.
6. Decide how to present the documentation
 - i. File format – all text or PDF so that it is platform independent.
 - ii. Tagging – with common keywords.
 - iii. A simple directory structure.



How have we conserved “Legacy documentation”?



7. Decide the requirements for what the Legacy Library should do and how they should be satisfied.
8. Understand the available repositories and infrastructure and their potential issues.
 - Can we satisfy our requirements?
 - If not, are the compromises that we have to make acceptable?
 - Can we adapt our wishes to reality?
9. Design and populate successively:
 - A sandbox library (get a feel for the contents).
 - A draft library (try different structures and see how they work in practice). Semi-public – used “in house”. Internal feedback,
 - A first version of the final user interface.
10. Make the user interface available to the community (initial release) and request feedback.  **We are here now.**
11. Make further updates and user releases until end of POPS.



User Requirements for the Herschel Explanatory Legacy Library: HELL



- **HELL** is a library of essential Herschel technical documentation
- **HELL** hangs from 4 Explanatory Supplement volumes, similar to the ISO Explanatory Supplement
 - One volume for each instrument and a volume for the spacecraft.
 - Each volume provides a complete top-level overview to the user that points the user to where to find further information, if needed.
- **HELL** is arranged in 3 tiers of importance
- As a first approximation, the top two tiers are the reference lists for the 4 Explanatory Supplement volumes.
 - **Tier 1** is a small number (<20) of the most essential reference documents for each instrument. **Top level references.**
 - **Tier 2** a rather larger number (a few tens) of more technical documents for obtaining deeper knowledge. **Useful knowledge.**
 - **Tier 3** is the most technical or historical documentation of strictly limited readership to understand an issue in detail (a few hundred documents maximum). **Keep these just in case.**



Implementation



- Instruments provided spreadsheets with their inventory of documents in their ICC wrap-up. These spreadsheets are updated regularly.
 - A few documents still TBW – usually papers in preparation – identified and a responsible and target date for completion identified.
 - Links in spreadsheet to all available documents.
- There is a portal to **HELL**:
<http://www.cosmos.esa.int/web/herschel/legacy-documentation>
- Step into **HELL**. Each instrument page has the same structure:
<http://www.cosmos.esa.int/web/herschel/legacy-documentation-observatory>
- And the first document listed is the relevant Handbook, e.g.
[Satellite and Observatory Handbook](#)
- Followed by the up-to-date complete documentation table:
<http://herschel.esac.esa.int/twiki/bin/view/Public/ObservatoryDocsEditableTable>
- And, below, all the relevant documentation.



- **The HELL pages with (almost) final population**
 - **Top level Portal**
 - <http://www.cosmos.esa.int/web/herschel/legacy-documentation>
 - **Instrument Portals**
 - <http://www.cosmos.esa.int/web/herschel/legacy-documentation-observatory>
 - <http://www.cosmos.esa.int/web/herschel/legacy-documentation-hifi>
 - <http://www.cosmos.esa.int/web/herschel/legacy-documentation-pacs>
 - <http://www.cosmos.esa.int/web/herschel/legacy-documentation-spire>
- **New documents and revisions will be added throughout most of 2017 as documentation reaches its final state.**



Release Schedule



1. **DP Workshop** (October 31) – Public release of HELL v1 to the community. Our own **Version 3**.
2. **Last ICC shutdown** (Dec 31) – Additional content & upgrades go public. Our **Version 4**.
3. **Deadline for major new content** – End of June 2017 (end of dedicated instrument support at HSC). Anything later on a best-efforts basis only.
4. **December 31st 2017**: HSC closes down – End of dedicated work on HELL, although small updates will continue, as necessary, on a best-efforts basis.
5. **From January 1st 2018** – Everything is taken over by the ESAC Post Operations and Archives Division, who will maintain the pages and their links in perpetuity.

