Data Access Overview

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Data Access: Basic Concepts

- One data repository: The Herschel Science Archive (HSA)

- Two ways to access the data:
  - Directly from the HSA UI (and then importing it into HIPE)
  - Accessing the data in HSA through HIPE

- Two different data structures:
  - Tar file from the HUI
  - Local stores

- Who has rights to access proprietary data?

  The PI and all the Co-users (~~Co-Is~~)

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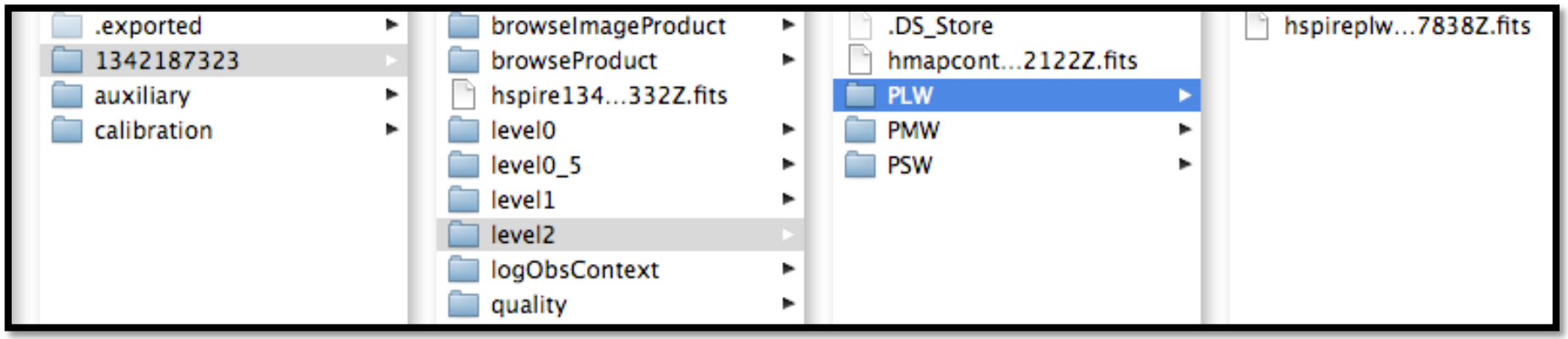
Data Access: HSA User Interface

Retrieving data from the HUI: (Always log-in required even for public data)

- **Direct retrieval:**
  - **Direct ftp download of the data to the user disk**
  - **Observation per observation**
  - **One tar file per observation**

- **Shopping basket retrieval:**
  - **Request to the HSA that process it and send you an e-mail**
  - **Ftp retrieval of data from an ftp area**
  - **A single tar file (compressed or not) with all the observations requested**

Structure of the tar file: Tree structure of the ObservationContext in directories



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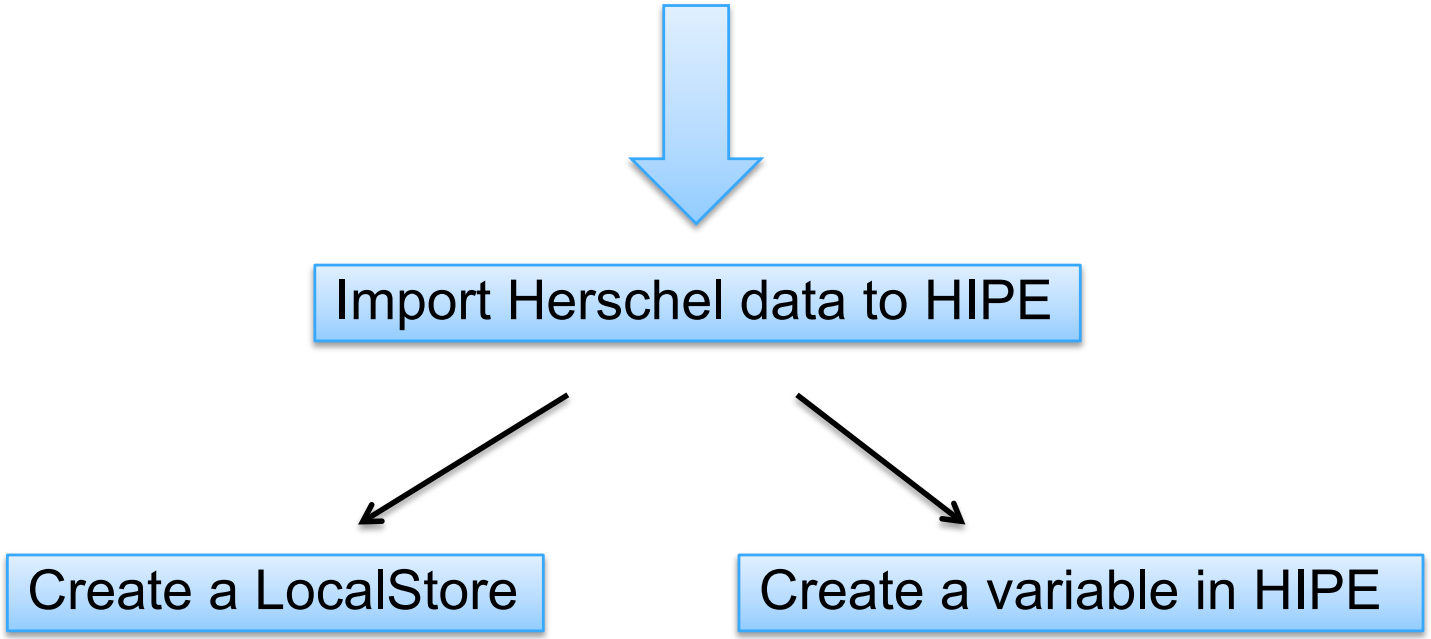
Data Access: Importing HSA tar file to HIPE

- HIPE only understands LocalStore format data
- HSA tar data has to be converted to LocalStore format



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Data Access: Importing HSA tar file to HIPE

- Currently: The Import view only works with tar files containing the **whole Observation Context** ➔ Option "ALL" in HUI when retrieving data
  (Individual FITS files (e.g. Level2) can be read into HIPE with a simple fitsReader task)

- The Import view requires the **.exported** directory inside the tar provided by the HSA.
  If you want to share your data be sure the tar file is complete.

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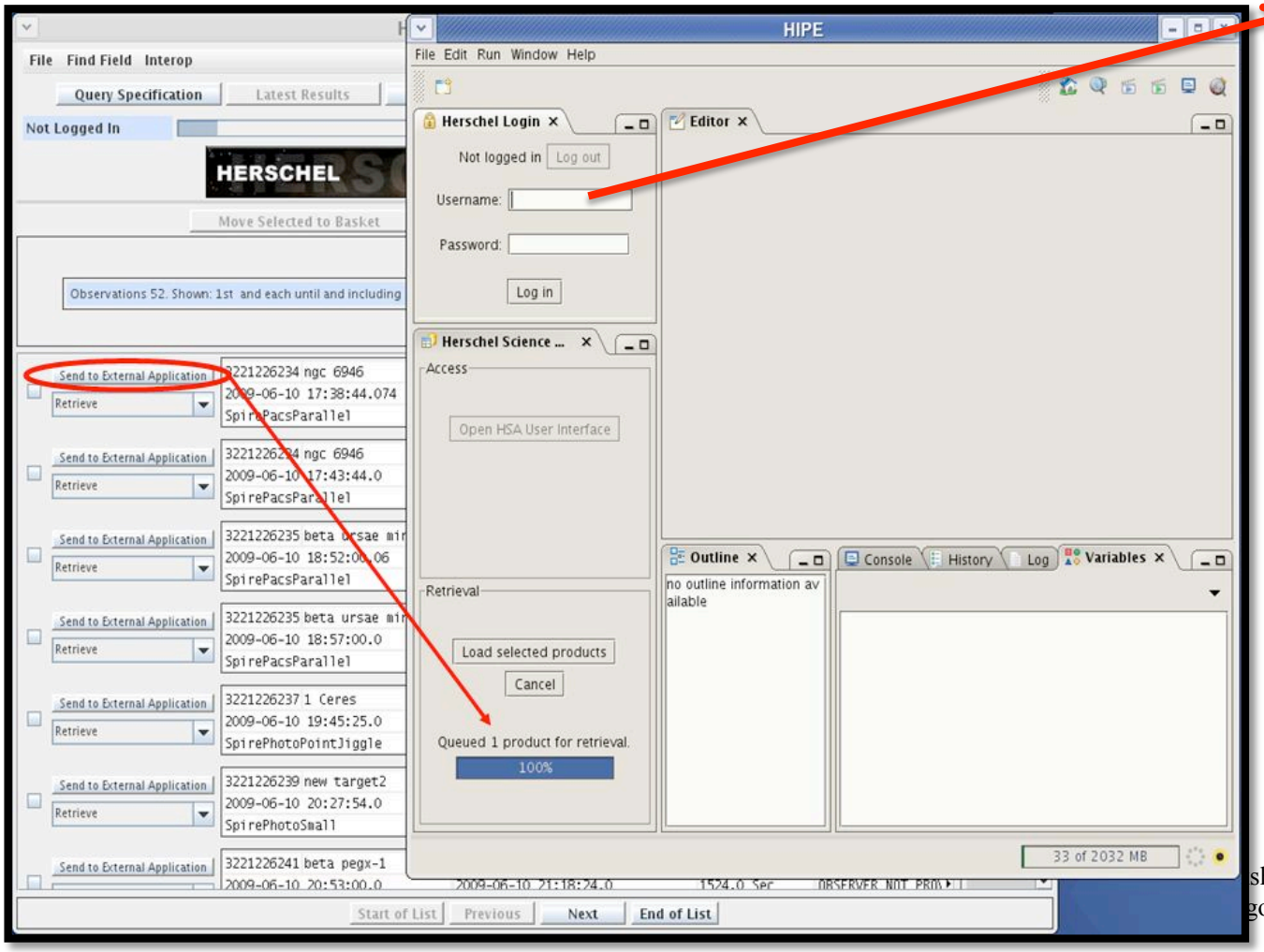
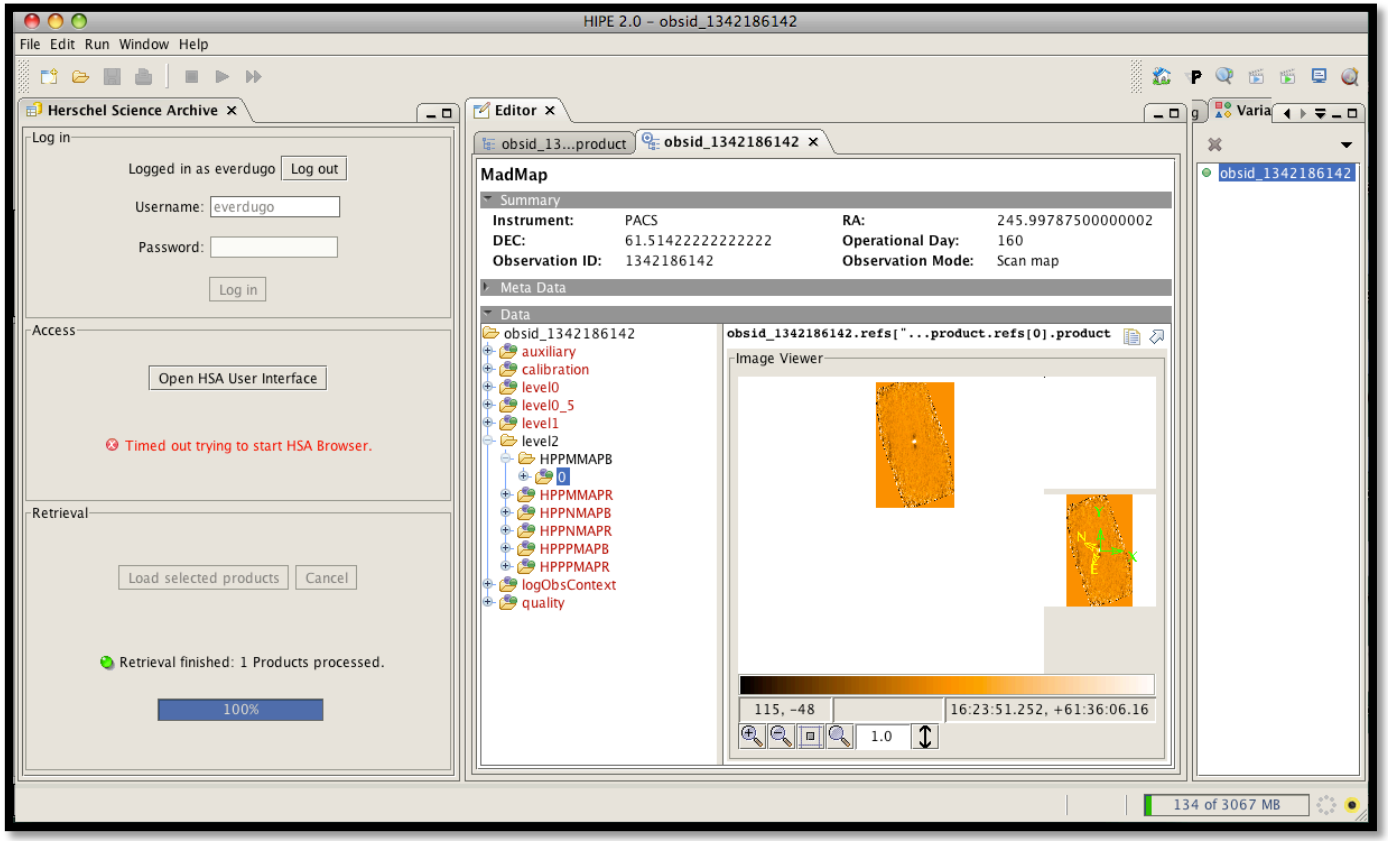
Data Access: Through HIPE (I)

- HUI functionality: **Send to external Application**
- HIPE perspective: **Herschel Science Archive**
- **PLASTIC/SAMP** connection between the two



Data Access: Through HIPE (II)

- A variable called obsid_xxxxxxx appears in HIPE which contains the whole ObservationContext
- All files can be inspected ➔ This requires internet connection to HSA opened at all time
- **THE DATA is NOT in YOUR DISK YET!**



Data Access: Through HIPE (III)

- How to save your data?
  - GUIs: **PAL Storage Manager + Save Products to Storage**
    - It guides you on the process of creating Pools and Storages
    - You can save several observations in one go
  - Right click on the observation variable and select **Send to LocalStore** ➔ A different GUI is opened
    - Per observation

Data is saved in LocalStore Format

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Data Access: Pools & Storages (I)

- Products Pools are data storage areas that could be:
  - On your local machine ➔ **LocalStore**
  - A remote pool:
    - » Herschel Science Archive
    - » Versant database
    - » A pool to share in a remote computer

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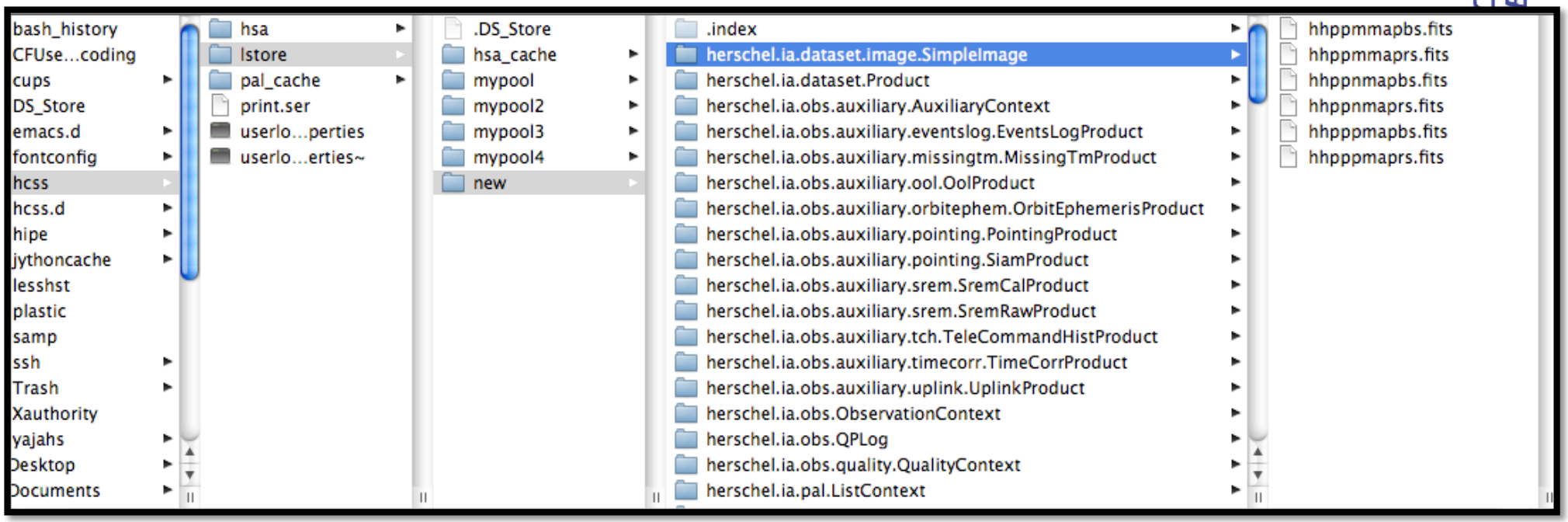
Data Access: Pools & Storages (II)

A LocalStore Pool in your disk:

- By default is always under:

  users_home_directory/.hcss/lstore/

- Pools are subdirectories on that location
- Structure of a pool:



Data Access: Pools & Storages (III)

Pool1

Versant

Pool3

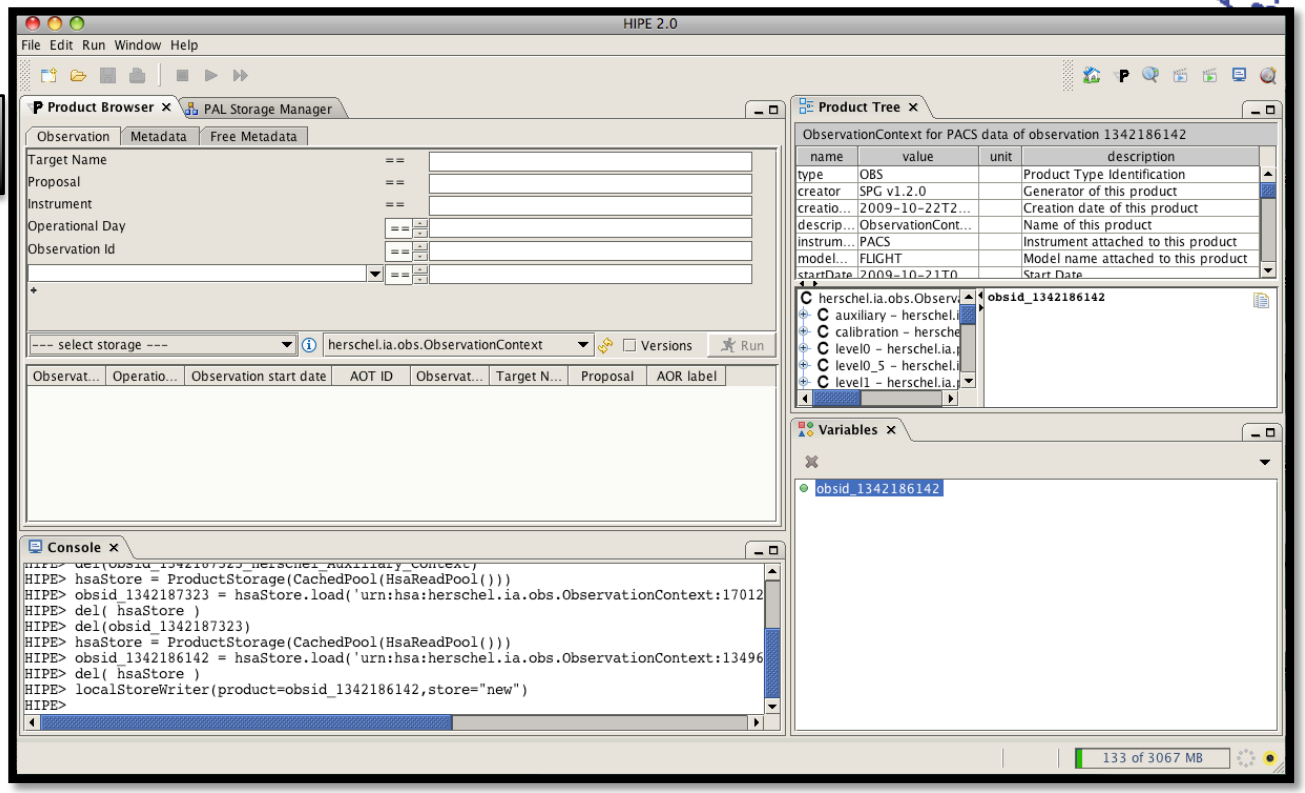
Pool4

HSA

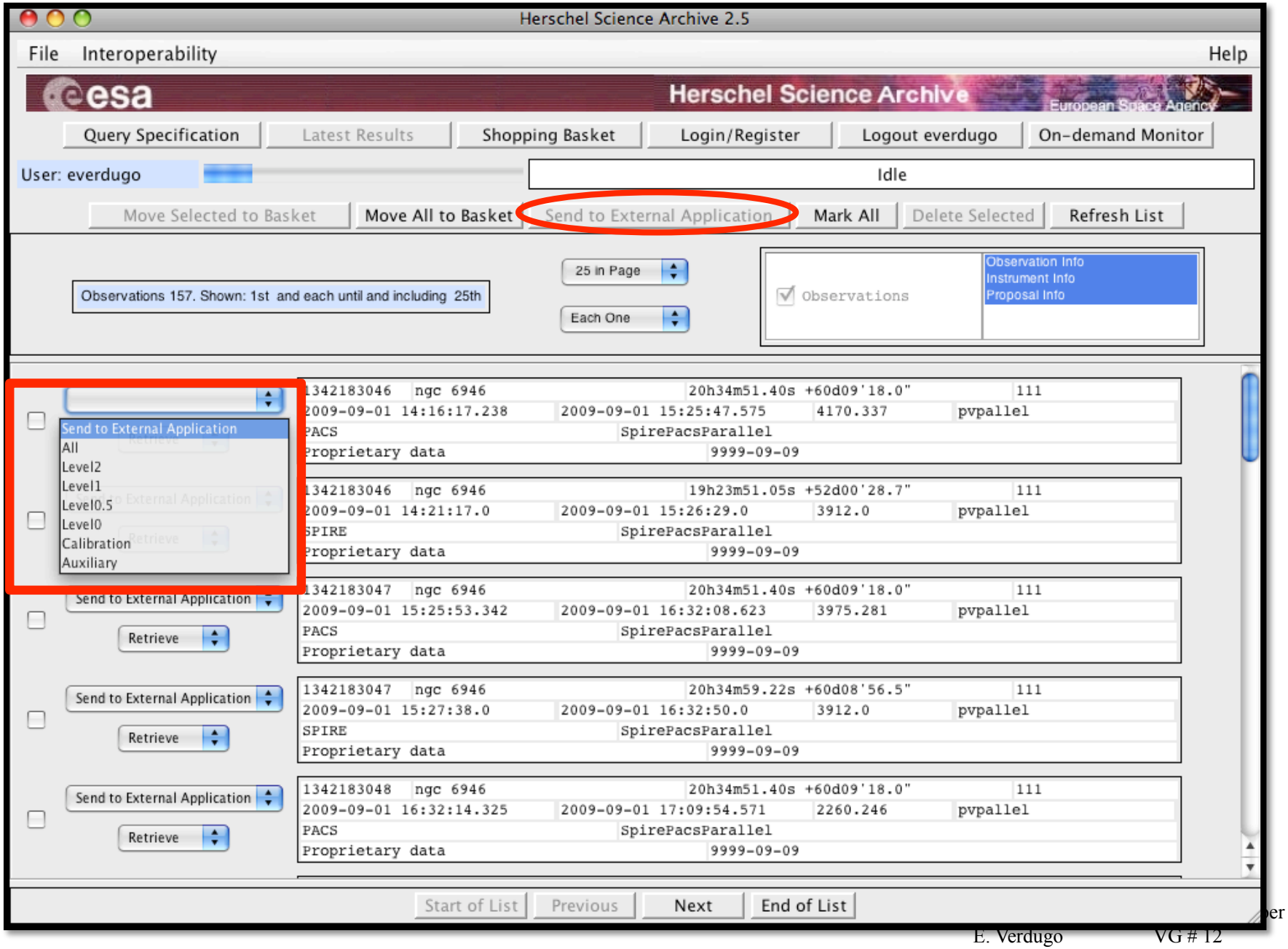
STORAGE

Mini database

New HIPE Product Browser perspective



Data Access: News on HSA 2.5



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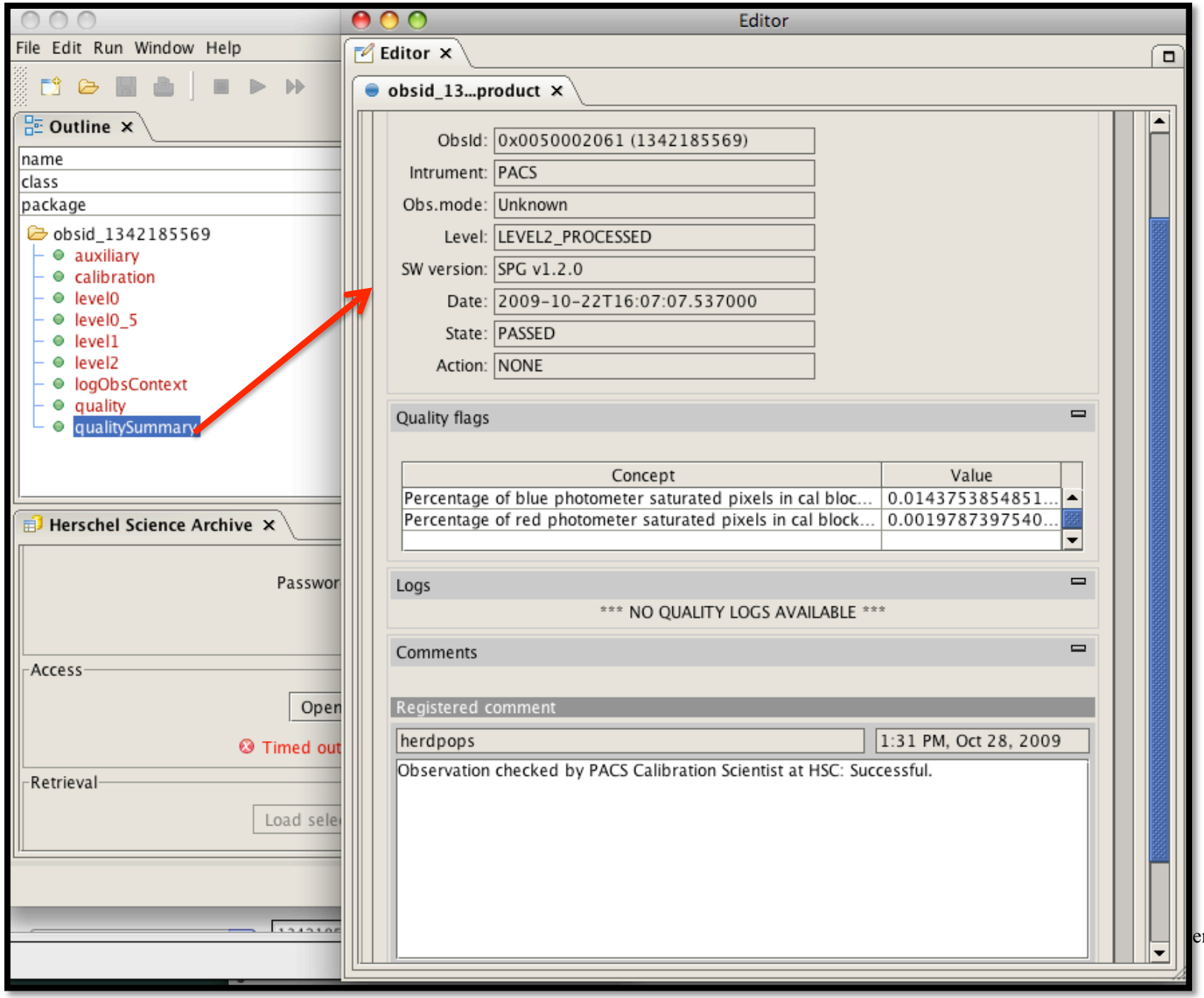
Data Access: Quality Information



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