SPIRE PHOTOMETER LARGE MAP

BASIC TUTORIAL: DATA AND PIPELINE PROCESSING

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OUTLINE

- Start HIPE

- Get the data

- Quick look at the data

  – Observation Context

  – Level-2

  – Calibration files used

- Run the standard pipeline

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GET THE DATA

- Import Herschel data to HIPE

- or Send products from the HSA to HIPE

- or just register the pool
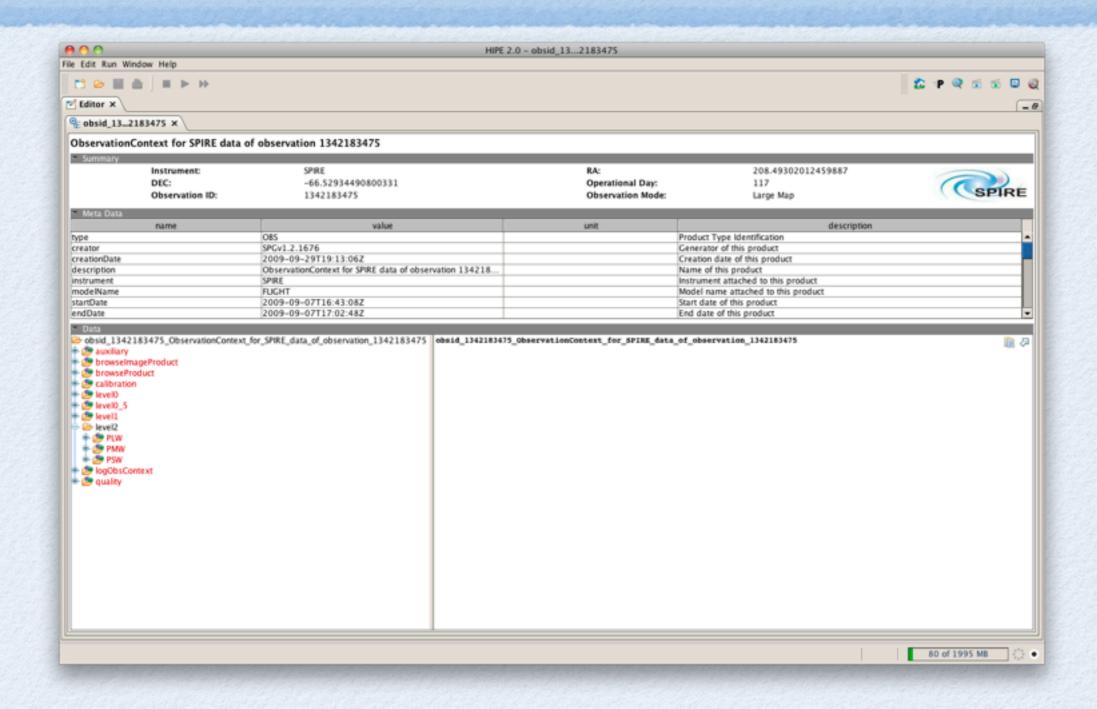 (the data already in the local store)

Import data to HIPE demo (not to be used!)

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REGISTER A POOL

- HIPE => PAL

  – Create new store and register the pool in it

  – Query the store for observation contexts (from Product Browser view)

  – Select the observation context (double click)

  Load pool and browse

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BROWSE THE OBSERVATION CONTEXT

Browse obsContext demo

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INSPECT LEVEL-2 PRODUCTS

- Maps, colours, error map, coverage/hit map.

- Save the maps to fits files.

Browse level-2 demo

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INSPECT CALIBRATION PRODUCTS

- *Browse Calibration*

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LOAD PIPELINE SCRIPT AND START THE PROCESSING

- There are different sections in the script

- We'll skip level-0 to level-0.5 and level-0.5 to level-1

- We'll do the browseProduct - three colour image, as this is not done in the version of the context

- Then at the end we'll save the observation to a pool

Run the pipeline

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WHAT CAN WE CHANGE IN THE PIPELINE?

- Level-0 to level-0.5: nothing

- Level-0.5 to level-1: few things

  – an alternative deglitching or the standard deglitching parameters.

- Level-1 to level-2:

  – alternative baseline removal,

  – different map resolution.

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CHANGE THE MAP RESOLUTION

- *Map resolution*

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- *DTE demo*

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SPIRE Photometer Large Map calibration issues
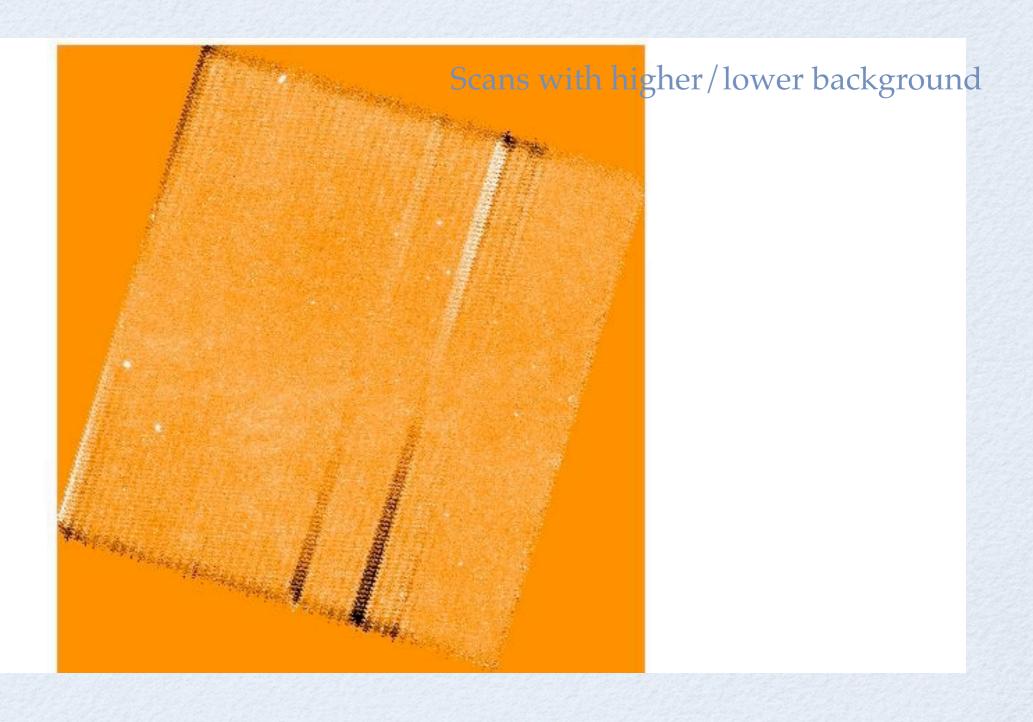
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WHAT CALIBRATION

- Early phases of the mission

  - Glitches

  - Saturated bolometers (bright sources)

  - Improper temperature drift correction and baseline removal

  - Pointing offsets

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TEMPERATURE DRIFT

Scans with higher/lower background

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TEMPERATURE DRIFT

Scans with higher/lower background

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THE END