Operational optimization is specially important for a mission like Herschel, as it has a limited lifespan of ≈3.5 years due to its cryogenic nature. Up to now, Herschel has executed more than 7,000 observations and other 20,000 are already in the queue. HILTS is a Java tool useful to analyze the present, current and future status of the mission and to optimize the project’s scientific return, providing visualization, querying and long term scheduling capabilities.

**Automatic Scheduler**

HILTS is capable of generating Long-Term schedules. Due to operational restrictions, a reference observation cycle pattern has been defined. HILTS schedules observations in time frames ranging from weeks to months days following the pre-defined pattern. Visibilities and operational constraints are also considered.

**Uniform design**

HILTS extensively uses the Model-View-Controller paradigm. It is composed by seven panels, which are customizible thanks to the underlying docking window manager (Infonode):

- **Time/Schedule panel** where the executed & scheduled observations are displayed along with the visibilities and observing mode stocks.
- **An interactive Sky Panel**, where observations, slews, and the various constraints are displayed.
- **Query panel**, where up to 20 combinable query criteria are selectable. Any change is propagated in real time to the remaining panels.
- **Proposal and Requests table panel.**
- **Catalogues panel**, with the current active catalogues.
- **Status panel**

**Pointing History**

Herschel pointing history for a given operational day

**VO-aware**

HILTS uses the SAMP protocol to interoperate with other VO tools (like e.g. CDS Aladin).

**Automatic Scheduler**

HILTS is capable of performing complex HTML/JS statistical reports. Google presentation API has been used for most of this functionality.

**Reports/Statistics**

AKARI, IRAS and user catalogues are supported. This has been used for spotting observations to be used as fillers during the daily communication period.

**Catalogues support**

ADASS XX, Boston
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Questions? want a Demo?... Ask me!