

IMACS: Inamori-Magellan Areal Camera and Spectrograph

Pre-Ship Review
28 May 2003

Description of software systems

Software overview:

What is included:

- low level motion control (motors, encoders, air cylinders, etc)
- monitoring of all sensors (pressures, temps, voltages)
- engineering/development graphical interfaces
- testing and debugging graphical interfaces
- top level graphical user interfaces (schematic and table-driven)
- detector control and data readout
- quick-look image tool
- slit mask cutting suite
- guide camera / telescope interface

NOT included:

- data reduction pipe-line, data reduction tools

Software overview:

- Instrument Control:

The IMACS control system is responsible for controlling the IMACS instrument. It constitutes the interface between observer and all IMACS related hardware (science arrays, motion controllers and sensors)

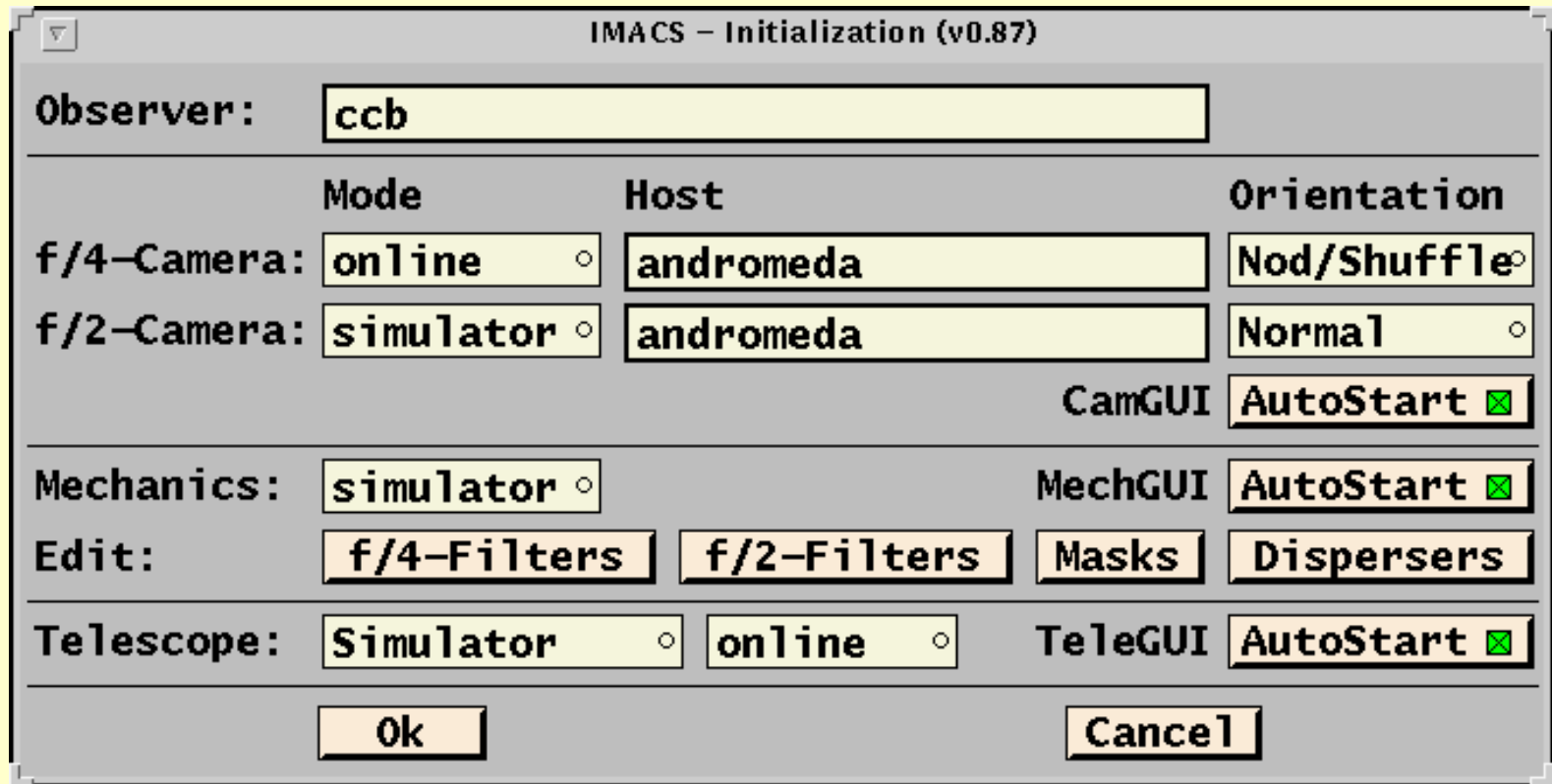
- Design Philosophy:

- All code is ANSI C and runs under both Linux and Solaris.
- Graphical components make use of the X11 libraries without any special extensions to ensure high flexibility and compatibility over all platforms.

- The IMACS control system consists of five modules:

- System Setup Tool
- Instrument Motion Control
- Instrument Status Display
- Science Array Control
- System Status Database

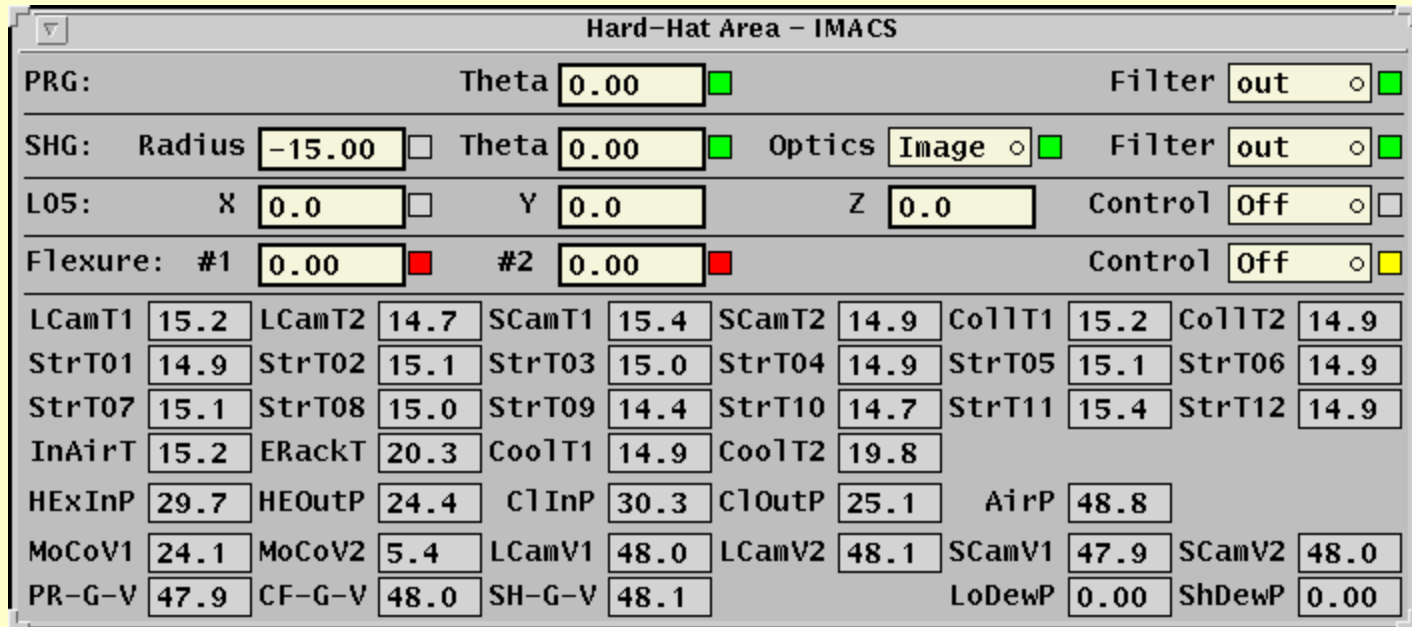
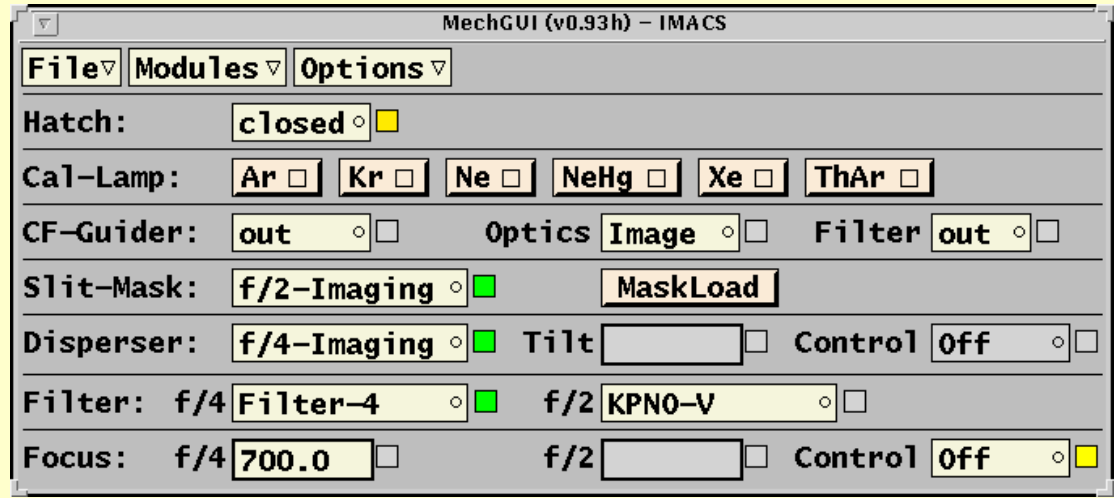
Software overview:



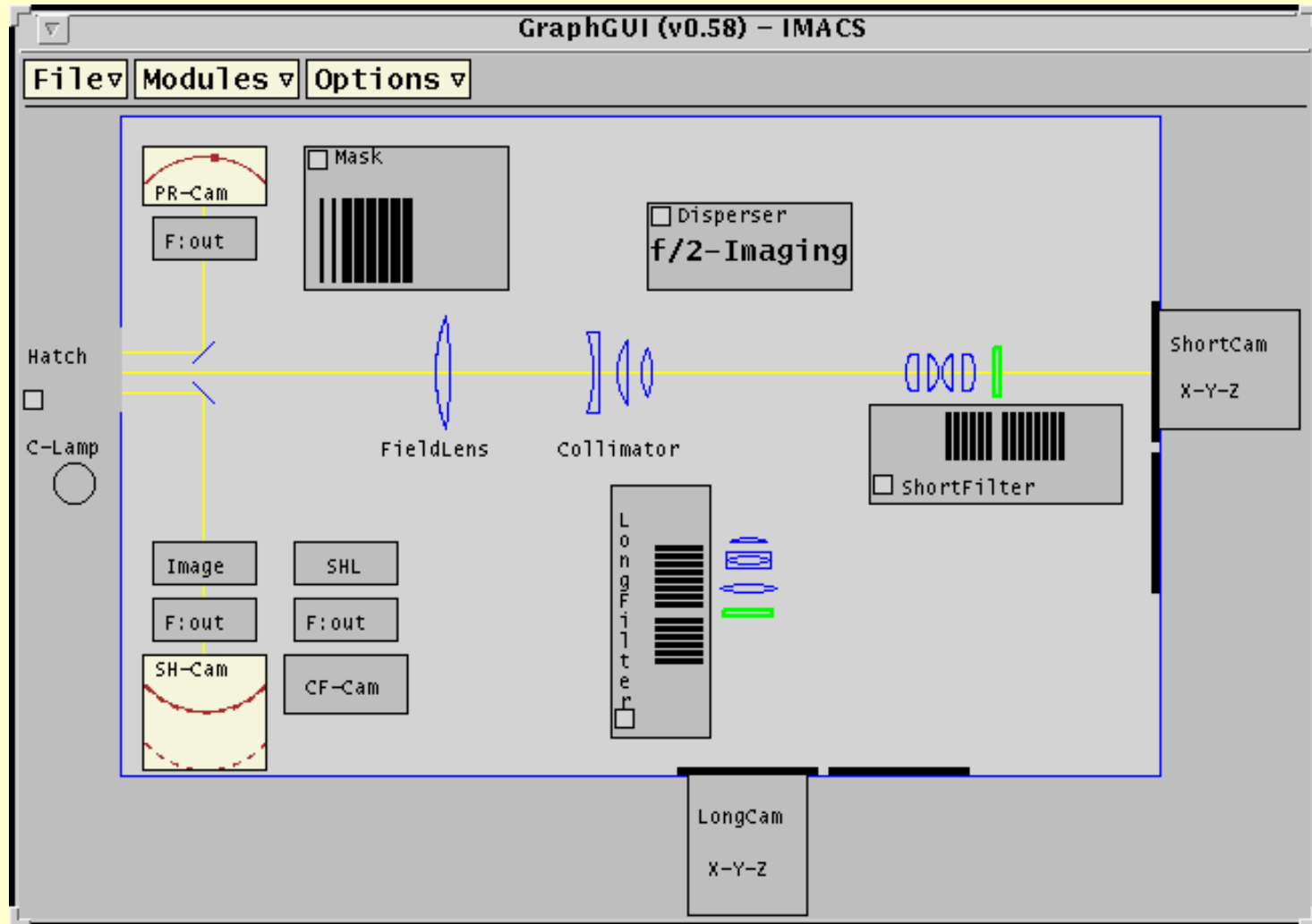
System set-up tool

Software overview:

Instrument motion control:
Mechanical GUIs

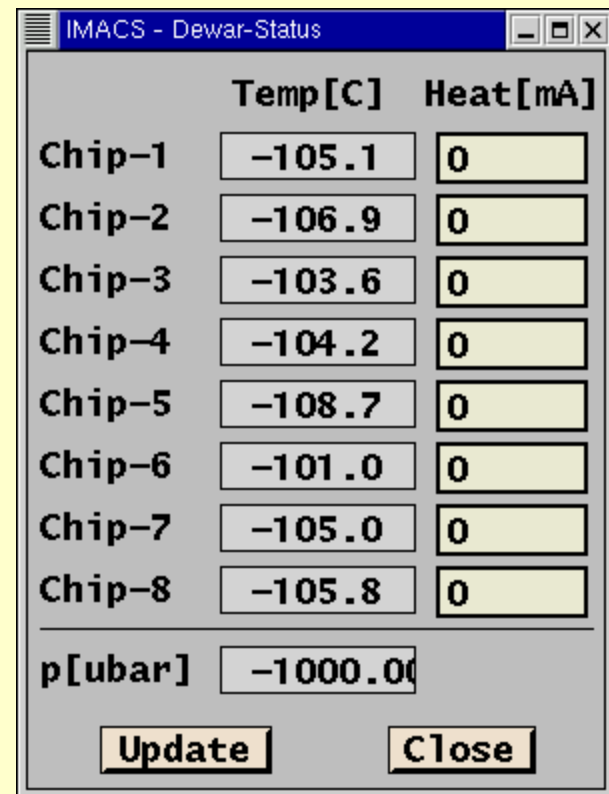
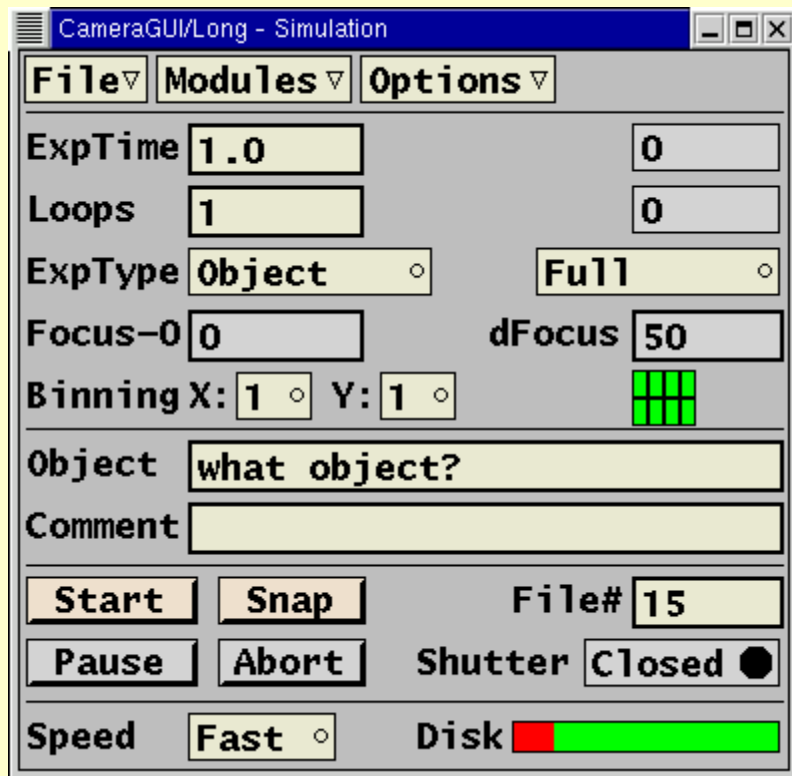


Software overview:



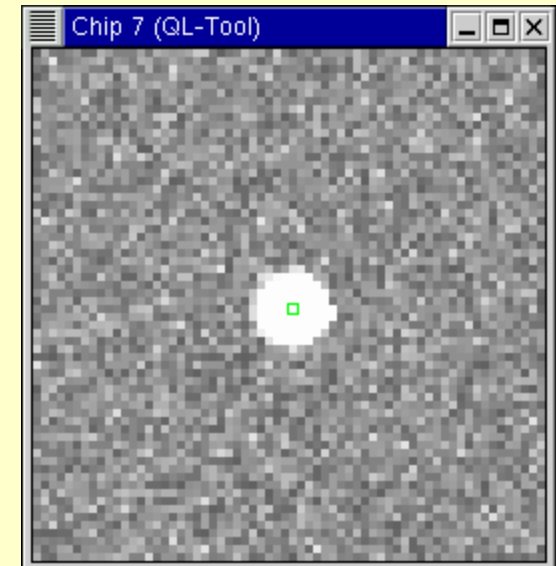
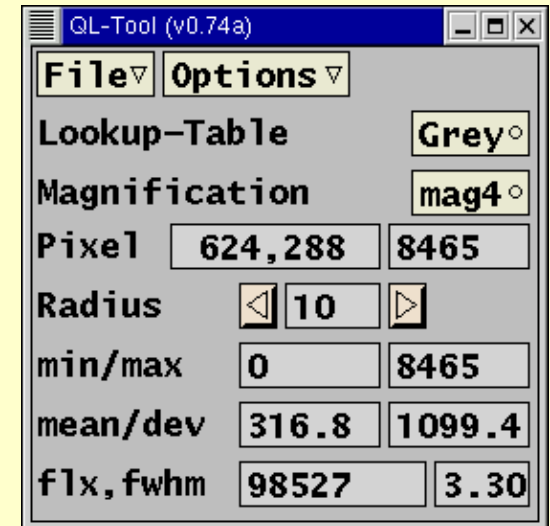
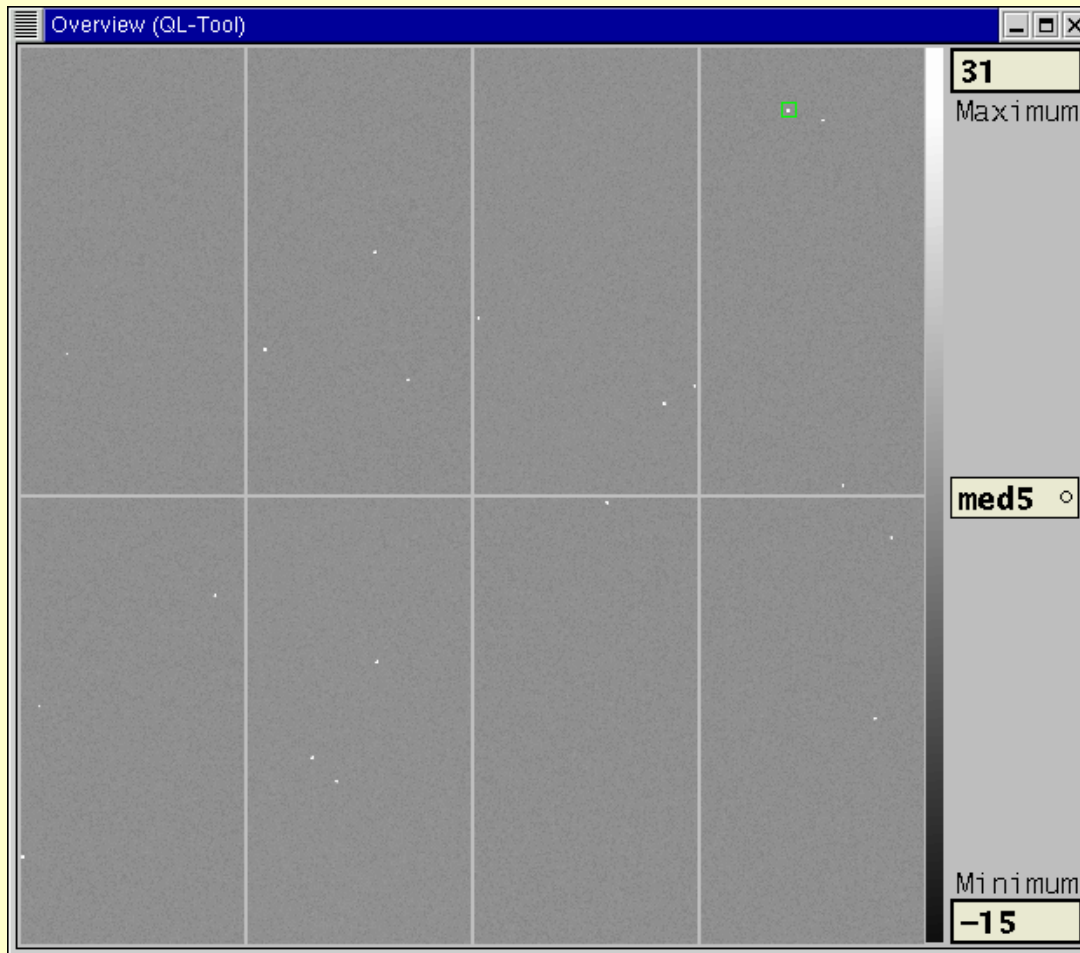
Instrument status display - Astronomer's GUI

Software overview:



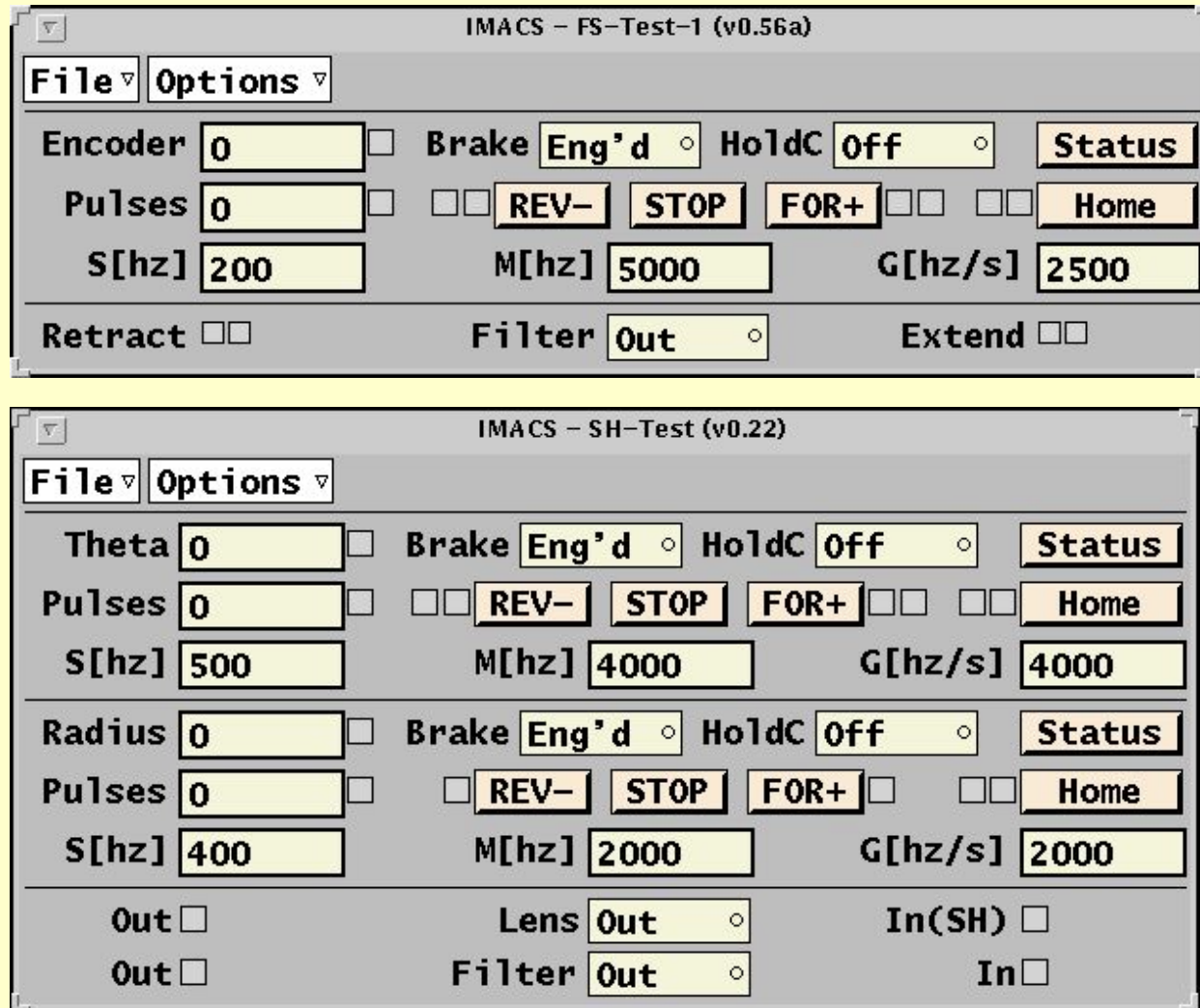
Science array control - astronomer's GUIs

Software overview:



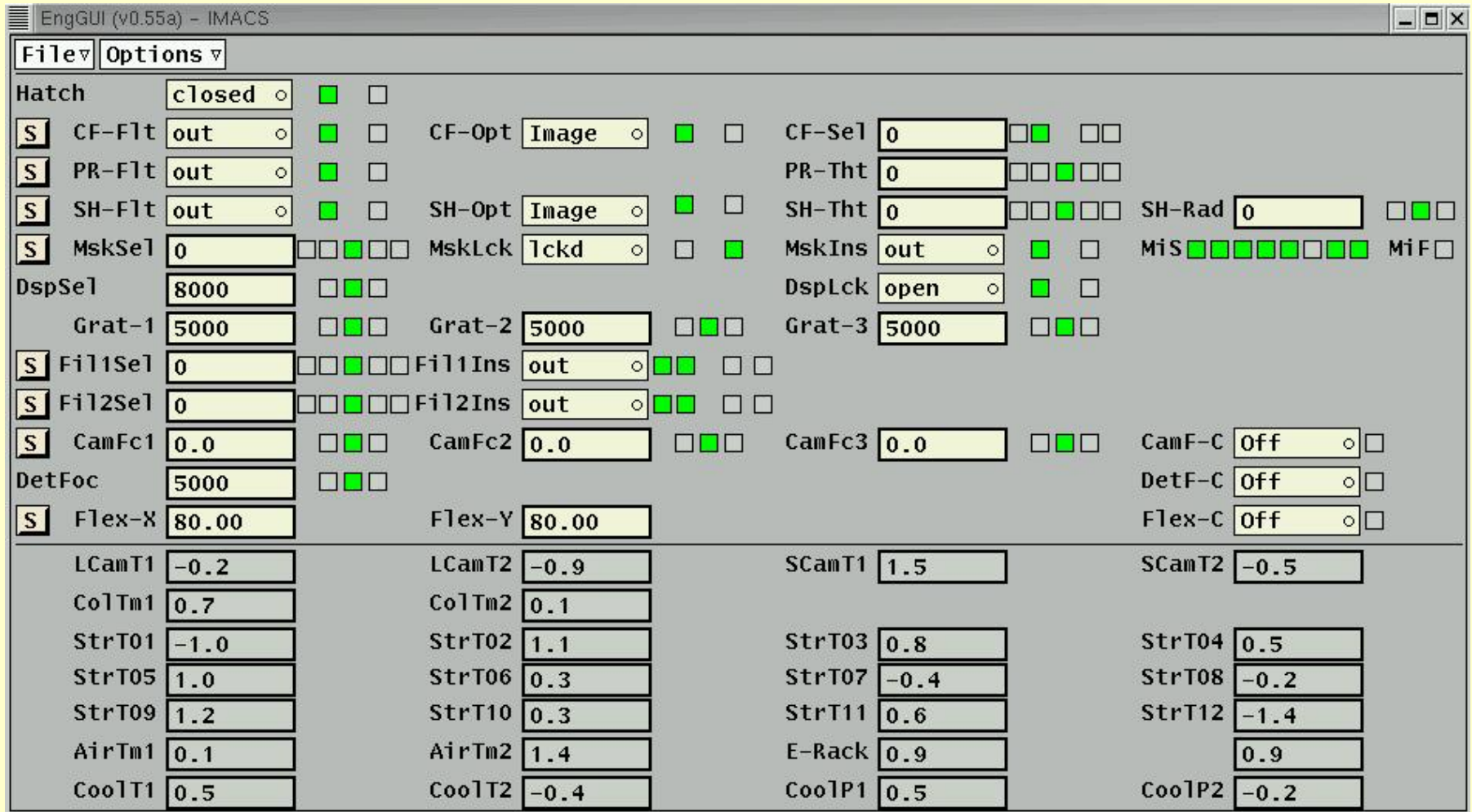
Quick-look tools

Software overview:



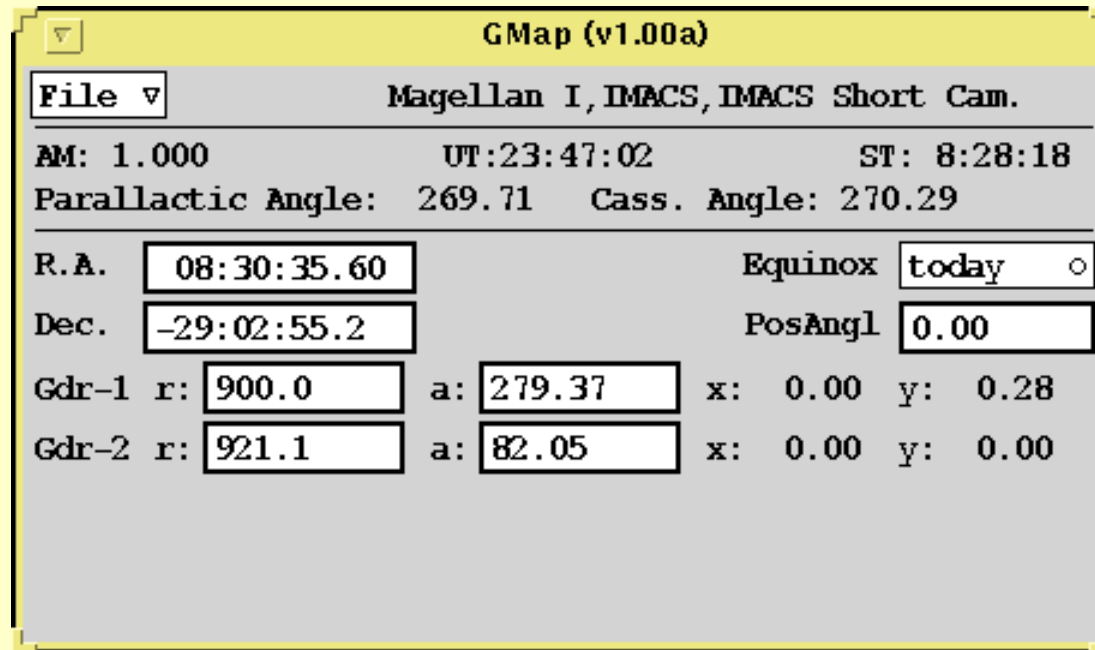
Low-level control GUIs - filter server, SHGC test GUIs

Software overview:



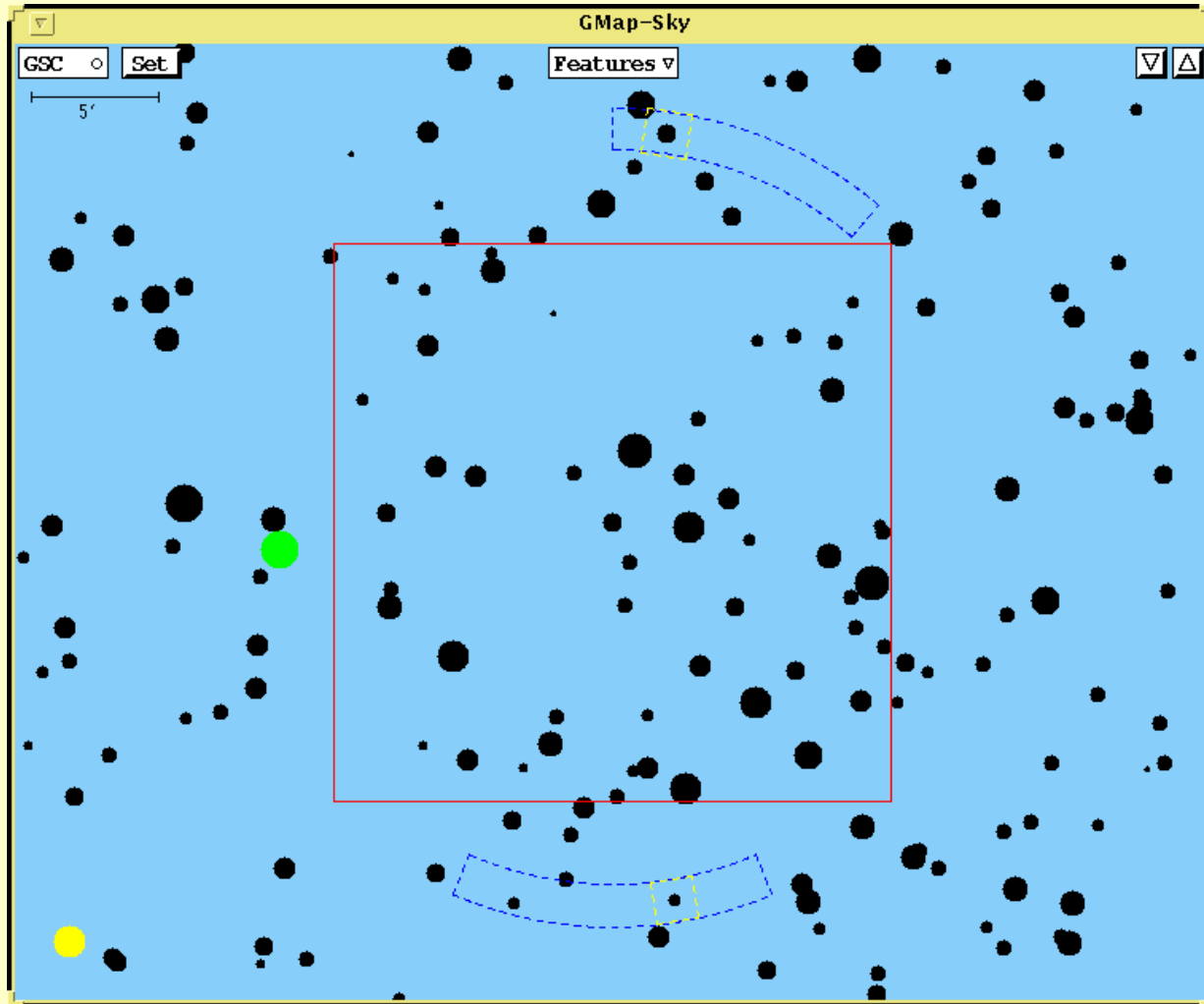
Top level engineering GUI

Software overview:



GMAP - guide camera control GUI

Software overview:



GMAP - guide camera display GUI

Software overview:

SlitMask Interface -- Ver. 1.90

File ▾

Data File: Observer:

Title:

R.A. Equinox: ◦

Dec. Slit Pos. Ang.

Temperature

Instrument Details:

Instrument: ◦ Disperser:

Filter: ◦ -- Center Wavelength:

Slit Specifications: (ArcSeconds)

Width: Lengths: -- Slit/Hole

Align Hole Size:

Slit mask cutting interface