

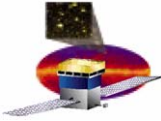
# **GLAST Large Area Telescope**

## **Instrument Flight Software**

**Monthly Status Review  
1 September 2004**

## **FSW/ISIS Demo**

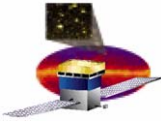
**Eric Hansen  
Stanford Linear Accelerator Center**



# FSW's ISIS Release

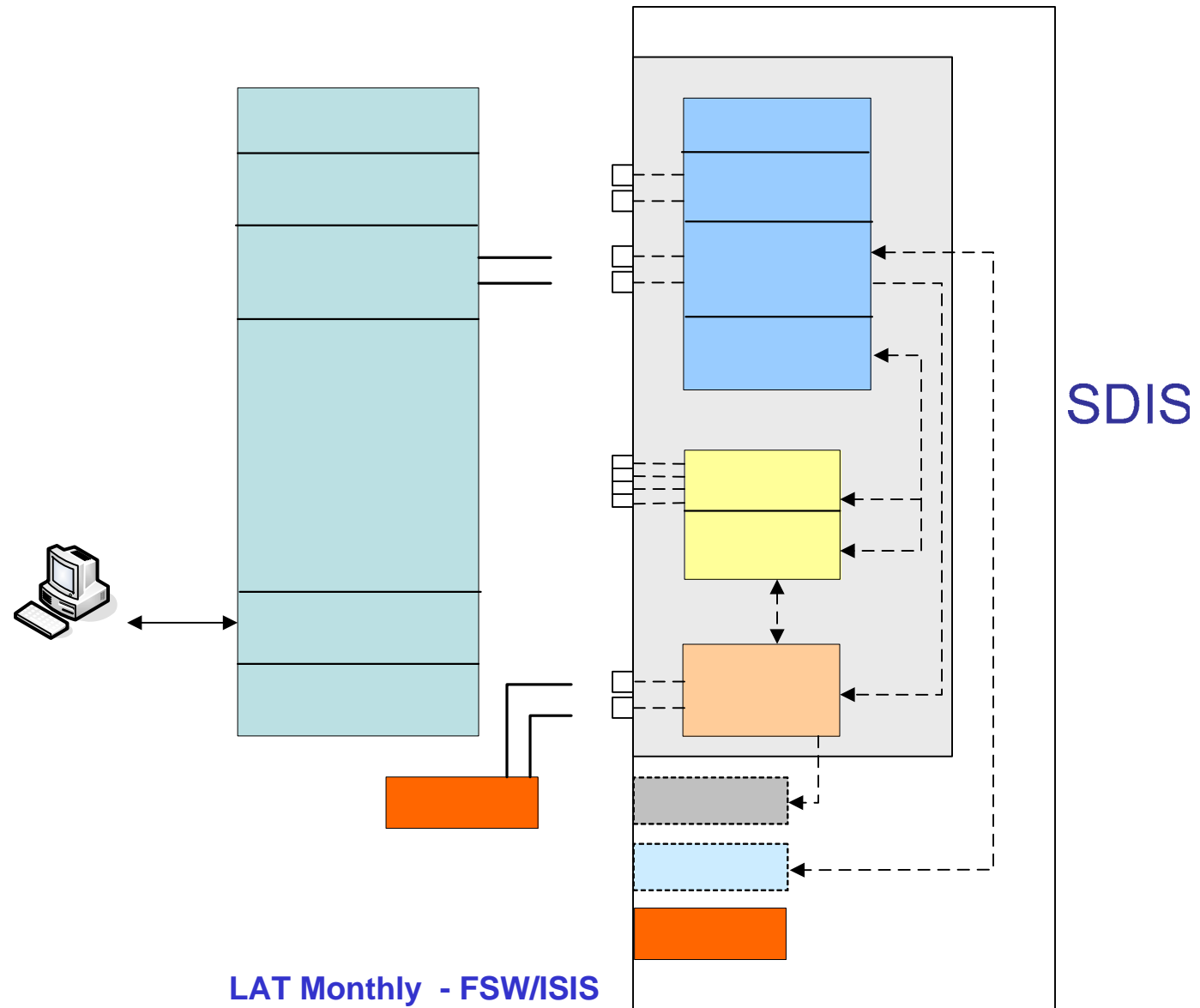
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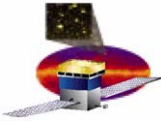
- **A specialized FSW release is an integral part of the ISIS delivery. This FSW release will provide the following functionality:**
  - **1553 Command Reception**
  - **1553 Command Delivery**
  - **1553 Command Verification**
  - **Attitude, Ancillary, Time Tone Command Processing**
  - **HKP Telemetry**
  - **Alert Telemetry**
  - **Diagnostic Telemetry**
  - **Software support to operate the Science Data Hardware Interface**
  - **Test Commands for Science Data Interface**
  - **Test Commands for Discrete monitor and control signals**
  - **Test Commands for Automatic Repoint Request**
  - **Boot Process and Boot Commands and Telemetry**
  - **Support for hardware-level control and monitoring of:**
    - **Power (Towers, ACD, EPUs)**
    - **Temperature Sensors**
    - **Voltage Signals**



# The Demo's Hardware Context

- FSW is operating in the context of two major collections of hardware:
  - Instrument to Spacecraft Interface Simulator (ISIS)
  - Spacecraft Data Interface Simulator (SDIS)





# Today's ISIS FSW Demo

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- **The ISIS is an interface simulator.**
  - **Thus, today's demonstration covers the major interfaces:**
    - **Operation of the 1553**
    - **Control of the discrete lines**
- **The 1553 interface demonstrations**
  - **Main power feed on command**
  - **Power to simulated tower loads**
  - **Control of heater switches**
  - **Alert telemetry**
- **Set and read discrete lines**