EIS ONBOARD SOFTWARE STATUS

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- **EIS<->S/C System Design**
  - EIS self contained for inst control & obs tables
  -> Promoted packet telemetry and command i/f's
  -> Promoted fast data link to MDP.

- **EIS Internal software design**
  - CCD windowing concept adopted.
  - Time-tabled & real-time (e.g flare coord) control concept developed.
  -> Observing tables design proposed.

- **Software Requirements Documented (v0.4)**
  - Identified req categories
  - Identified req items
  -> Parameters identified and estimated where possible. Require refining by end of year
  -> Met with RAL for SOHO CDS experiences for reqs. To be incorporated in EIS reqs doc.

- **Processor & Development System Selection**
  -> Estimates produced for processing requirements
  -> Participating in development system evaluation

- **Data Compression**
  - Limited Progress/Lack of scientific involvement.
  -> Prelimary look at JPEG and wavelet compression.
  -> Promoting use of lossless compression as standard
  -> Promoting movie mode for heavy lossy compression

- **Science**
  -> Flare pre-trigger data store concept investigation.

- **Effort**
  -> Allocation of expanded effort for Breadboard evaluation phase underway.
  -> Evaluation of total effort based on requirements doc underway. May lead to prioritisation of requirements.

- **Next steps/and Requirements for..**
  -> Need s/c i/f definitions in order to begin any major software design and instrument scientific capabilities analysis.
  (Especially max/min EIS-MDP data transfer rates, decision on packet telemetry concept and details)
  - Affects data compression requirements.
  - Affects processing rate reqs and thus selection of processor.

  -> Need firmer information on key EIS subsystems such as number of CCDs, aperture exchange mechanism parameters and control requirements.
  Also on temperature control requirements, dependent on carbon fibre selection for telescope structure.

  -> Require scientific input & evaluation & decisions on data compression schemes, flare coordination mode (especially wrt pre-flare concept which could have major effect on RAM requirements for EIS) & movie mode proposal.

  -> Require a planned evolution of software requirements (BB freeze) to proceed to confident evaluation & design.

  -> Need to select development system and processor to proceed with BB evaluation and software design.