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Heliophysics Portal — Multi-Instrument Database of Solar Flares

- Development of the helioportal web site with a multi-instrument database of solar flares
  - To facilitate studies of solar flare radiation physics we have developed an Interactive Multi-Instrument Database of Solar Flares, which is being integrated into the Helioportal at the NASA Ames.
  - This web-accessible database allows the user to search for uniquely identified flare events based on (1) their physical descriptors and (2) the availability of observations by a particular set of instruments, in order to investigate their radiation properties, including EUV and X-ray radiation.
  - Currently, the data from three primary flare lists (NOAA, NASA, and Lockheed-Martin) and a variety of other event catalogs from spacecraft and ground-based observations have been integrated into the database.

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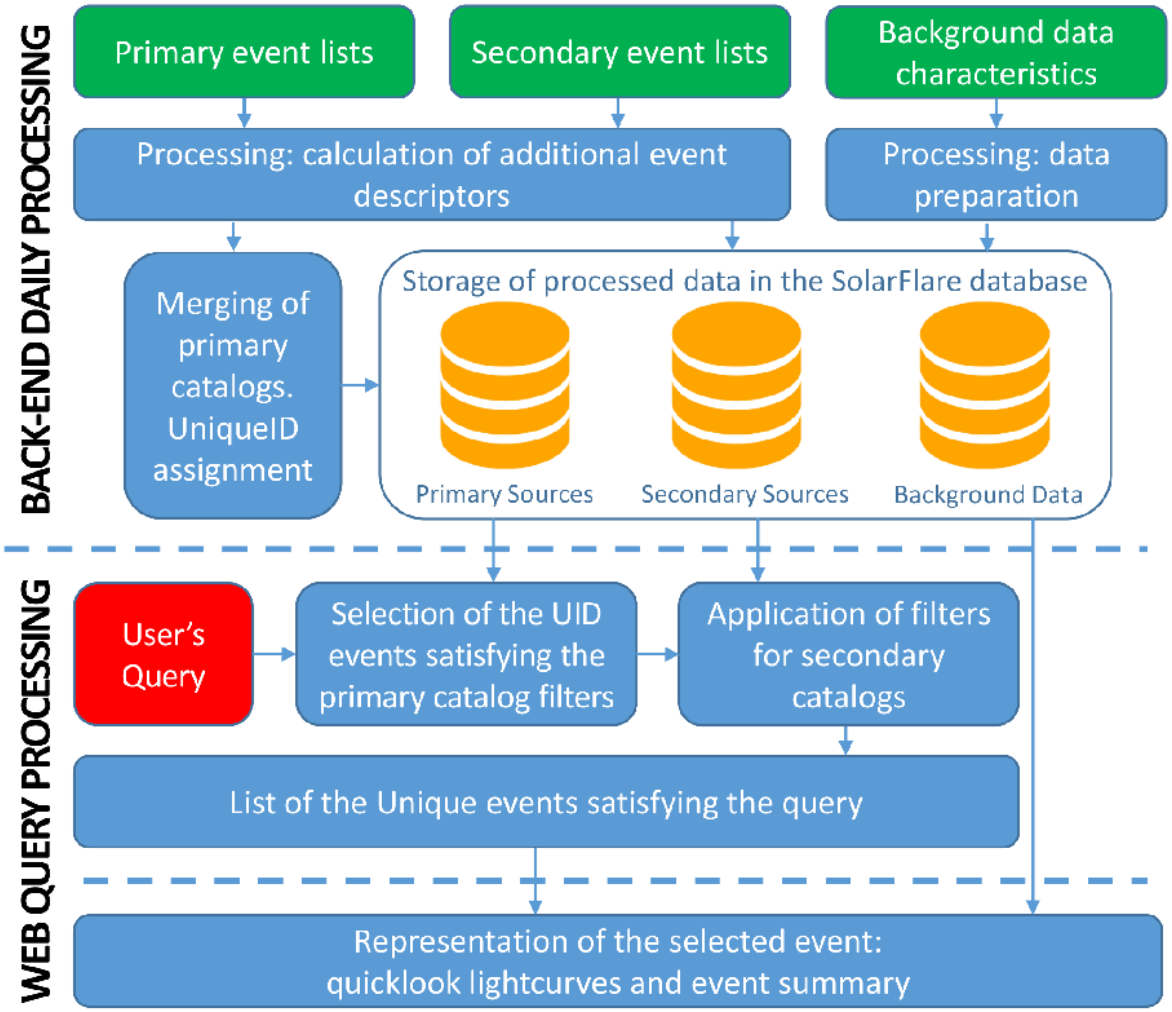
- The multi-instrument database of solar flares is essential for modeling the impact of solar flares to improve
  - Statistical studies of short- and long-term effects of ionizing radiation;
  - Physical flare models;
  - Flare prediction.

Current availability:

- Fully functional database prototype is available at http://solarflare.njit.edu
- Upcoming Heliophysics portal at NAS http://helioportal.nas.nasa.gov



Database Architecture.