

Scenario Analysis.

Iain Last

1.0 Scenario.

Appl-12:

An algorithm wishes to make histograms on a per-run basis and analyse several runs within a single job and analyse several runs within a job. The histograms are to be stored.

2.0 Assumptions.

- The events are being analysed one at a time and the run number is stored with the event.
- How the events are retrieved is not important - they are accessible before the algorithms are used to analyse them.
- 1D histogram.
- At end of analysis job everything marked for storage can and is made persistent.

3.0 Method.

1. Algorithm asks EventDataService for the current run number.
2. Algorithm calculates variable to be histogrammed.
3. Algorithm builds unique identifier for histogram based on run number and variable being histogrammed.
4. Algorithm asks Transient Histogram Service (THS) if a histogram with above ID already exists.
5. If histogram doesn't exist algorithm creates it with the unique ID, registers it with the THS and marks it for persistent storage.
6. Algorithm asks THS for the histogram.
7. Algorithm adds variable to histogram.