Transient Histogram Model

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1.0 Purpose and Functionality

The transient histogram model (THM) describes the representation of histogram/statistical data in the memory. It is intentionally as close as possible to the Transient Event Model (TEM) in design and (eventually) interface.

THM consists of class definitions and relationships between statistical data objects. It contains:

- Identification of statitical data.

- ...

- ...

The THM must allow conversion to standard hbook forms of histograms so that users may continue to use existing libraries (HBOOK/HPLOT) from within their applications. The HEM must also be capable of storing any reference histograms poroduced by the current version of SICb.

The THM must only be capable of storing objects derived from the "Statistical Data Class" - this class will contain the identifiers for statistical data.

2.0 Access and Interfaces.

Algorithms wishing to find, create/delete, or register statistical data must always do so through the Histogram Service (StatDataSvc). . If these objects are not available in the transient histogram store then a request is sent to the persistent histogram service to see if they exist in the persistent world.

3.0 Dependencies

- **Transient Data Store:** An instance of this store will be used to store statistical data only.

- **CLHEP / LHC++:** These will provide the basic histogram classes.