Tracker TDS Issues
Quick Summary

• Problems with current system:
  – Some pieces (properly) reside in Event, some still in TkrRecon
  – Pieces in TkrRecon combine data with methods to find/fit tracks
  – Only pieces in Event are (properly) part of the PDS
  – Not all desired data available in PDS
  – Inflexible to desires of different types of reconstruction algorithms

• Want:
  – Separate the data from the methods (the Gaudi way!)
  – All data part of classes defined in Event and part of PDS
  – Standard interface to results for ACD/CAL and “casual” users
  – Flexibility to allow easy addition of new/different data for alternate reconstruction algorithms
Current Track Fit Output Structure

Event::TkrFitTrackCol (DataObject)

- Event::TkrFitTrack
- Event::TkrReclInfo
- ContainedObject

- Event::TkrFitPlane
- Event::TkrFitHit
- Event::TkrFitPar
- Event::TkrFitMatrix

This part explicitly declared in TDS

This part implicitly part of TDS

Contains data and methods for associating hits to tracks and for controlling the track fit
Proposed Track Fit Output Structure

**Event::TkrTrackBaseCol**
(ObjectVector<TkrTrackBase>)
(DataObject)

**Event::TkrKalFitTrack**

**Event::TkrFitPlaneCol**
(ObjectVector<TkrFitPlane>)

**Event::TkrFitPlane**

**Event::TkrTrackBase**

**Event::TkrFitHit**

All declared explicitly in the TDS

**Event::TkrFitPar**

**Event::TkrFitMatrix**