A Guide Tour Through nTuple Land

Objective: To provide a initial look at what analysis variables are currently present in the merit-ntuple

Most of the variables are created in the AnalysisNTuple package

- Collection of classes labeled xxxValsTool
- At least one such class per subsystem including Mc, High Level Stuff, Multi-system (Evt), etc.
- TAKE A LOOK - THESE WERE CREATED WITH A MIND TO PROVIDING AN EXAMPLE OF HOW TO DID INFORMATION OUT OF THE MC & RECON.
DOCA: Distance of Closest Approach
(Between Track Trajectory and Hit ACD Tile Center
simple line-point minimum distances)
Defaults (No Hit Tile) = 2000 (Historic)

ActiveDist(ance): Trajectory inside/outside Hit Tile

Actually it is the distance to the closest edge of a Hit Tile
It is computed such that:

ActiveDistance = 0 right at the edge
> 0 if inside
< 0 if outside
= -200 No Hit Tile
Cal SUBSYSTEM

CalEnergySum
CalEnergyCorr
CalEneSumCorr
Cal_Energy_LLcorr

CalLeakCorr2
CalEdgeSumCorr
CalTotSumCorr

CalCsIRLn
CalTotRLn
CalCntRLn
CalDeadTotRat
CalDeadCntRat
CalTPred
CalDeltaT

CalTwrEdge
CalLATEdge
CalTENrm
CalTwrGap

CalTrackSep
CalTrackDoca
CalTrackAngle
CalX0 CalY0 CalZ0
| **Mc SUBSYSTEM** | **McX0 McY0 McZ0**  
| McXDir McYDir McZDir |
| **Particle Type & Energy** | **McId**  
| **McCharge**  
| **McEnergy**  
| **McLogEnergy** |
| **Pair Specific Parameters** | **McEFrac**  
| **McOpenAngle**  
| **McTkrExitEne** |
| **Image Resoultion** | **Energy Leaving Tracker**  
| **McXErr McYErr McZErr**  
| **McXDirErr McYDirErr McZDirErr**  
| **McDirErr**  
| **McTkr1DirErr**  
| **McTkr2DirErr** |
**Tkr SUBSYSTEM**

- **TkrNumTracks**
- **TkrSumKalEne**
- **TkrSumConEne**
- **TkrEnergy**
- **TkrEnergySum**
- **TkrEnergyCorr**
- **TkrEdgeCorr**

**Hit Counting**
- **TkrHDCount**
- **TkrTotalHits**
- **TkrThinHits**
- **TkrThickHits**
- **TkrBlankHits**

**Trajectory Geometry**
- **TkrRadLength**
- **TkrTwrEdge**
- **TkrTrackLength**
- **Tkr1Chisq**
- **Tkr1FirstChisq**
- **Tkr1Hits**
- **Tkr1FirstHits**
- **Tkr1FirstLayer**
- **Tkr1DifHits**
- **Tkr1Gaps**
- **Tkr1FirstGaps**

**Energy Information**
- **TkrSumKalEne**
- **TkrSumConEne**
- **TkrEnergy**
- **TkrEnergySum**
- **TkrEnergyCorr**
- **TkrEdgeCorr**

**Image Resolution**
Tkr1Qual  Tkr1CovDet
Tkr1Type  Tkr1SXX  Tkr1SXY  Tkr1SYY
Tkr1TwrEdge  Tkr1ToTFirst
Tkr1PrjTwrEdge  Tkr1ToTAve  Tkr1ToTTrAve
Tkr1DieEdge  Tkr1ToTAsym
Tkr1TwrGap  Tkr1ChisqAsym
Tkr1KalEne  Tkr1ErrAsym
Tkr1ConEne  Tkr1SSDVeto
Tkr1KalThetaMS

Best Track Description

Tkr1XDir  Tkr2TkraAngle
Tkr1YDir  Tkr2TkraHDoca
Tkr1ZDir  Tkr1Trajectory
Tk1Phi  Tkr1Theta
Tkr1X0  Tkr1ToTFirst
Tkr1Y0  Tkr1ToTAve
Tkr1Z0  Tkr1ToTTrAve
Tkr1ThetaErr  Tkr1ToTAsym
Tkr1PhiErr  Tkr1ChisqAsym

Topology

GLAST