



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.

Acd SUBSYSTEM

AcdTileCount
AcdTotalEnergy
AcdDOCA
AcdActiveDist
AcdGammaDOCA

GLOBAL

AcdNoTop
AcdNoSideRow0
AcdNoSideRow1
AcdNoSideRow2
AcdNoSideRow3

AcdActDistTop
AcdActDistSideRow0
AcdActDistSideRow1
AcdActDistSideRow2
AcdRibbonActiveDist

PIECES

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

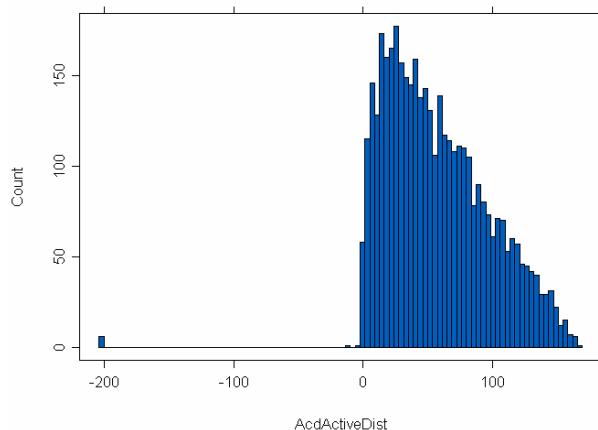
Actually it is the distance to the closest edge of a Hit Tile
It is computed such that:

ActiveDistance = 0 right at the edge

> 0 if inside

< 0 if outside

= -200 No Hit Tile



Cal SUBSYSTEM

CalEnergySum
CalEnergyCorr
CalEneSumCorr
Cal_Energy_LLCorr

Energy

CalLeakCorr2
CalEdgeSumCorr
CalTotSumCorr

Energy
Corrections
Factors

CalCsIRLn
CalTotRLn
CalCntRLn
CalDeadTotRat
CalDeadCntRat
CalTPred
CalDeltaT

Material Audit From
G4Propagator

CalTwrEdge
CalLATEdge
CalTENrm
CalTwrGap

Geometry

CalTrackSep
CalTrackDoca
CalTrackAngle
CalX0 CalY0 CalZ0

Tracker
Driven
Items

GLAST

CalELayer0 CalELayer1
CalELayer2 CalELayer3
CalELayer4 CalELayer5
CalELayer6 CalELayer7
CalLyr0Ratio
CalLyr7Ratio
CalBkHalfRatio

Layers

CalXtalsTrunc
CalXtalRatio
CalXtalMaxEne

Crystals

CalLongRms
CalLRmsRatio
CalTransRms

**Shape &
Size**

CalMIPDiff
CalMIPRatio

MIP

CalXEcntr
CalYEcntr
CalZEcntr
CalXDir
CalYDir
CalZDir

**Cal Trajectory
Centroid &
Direction**

Mc SUBSYSTEM

McId
McCharge
McEnergy
McLogEnergy

Particle Type
& Energy

McXErr McYErr McZErr
McXDirErr McYDirErr McZDirErr
McDirErr
McTkr1DirErr
McTkr2DirErr

Image Resolution

McX0 McY0 McZ0
McXDir McYDir McZDir

Trajectory

McEFrac
McOpenAngle

Pair Specific
Parameters

McTkrExitEne

Energy Leaving
Tracker

Tkr SUBSYSTEM

TkrNumTracks

TkrSumKalEne
TkrSumConEne
TkrEnergy
TkrEnergySum
TkrEnergyCorr
TkrEdgeCorr

**Energy
Information**

TkrHDCount
TkrTotalHits
TkrThinHits
TkrThickHits
TkrBlankHits

Hit Counting

TkrRadLength
TkrTwrEdge
TkrTrackLength

**Trajectory
Geometry**

Tkr1Chisq
Tkr1FirstChisq
Tkr1Hits
Tkr1FirstHits
Tkr1FirstLayer
Tkr1DifHits
Tkr1Gaps
Tkr1FirstGaps

Image Resolution

Tkr1Qual
Tkr1Type
Tkr1TwrEdge
Tkr1PrjTwrEdge
Tkr1DieEdge
Tkr1TwrGap
Tkr1KalEne
Tkr1ConEne
Tkr1KalThetaMS

Best Track Description

Tkr1CovDet
Tkr1SXX Tkr1SXY Tkr1SYY

COV

Tkr1ToTFirst
Tkr1ToTAve Tkr1ToTTrAve
Tkr1ToTAsym
Tkr1ChisqAsym

TOT

Tkr1ErrAsym
Tkr1SSDVeto

Tkr1XDir Tkr1YDir Tkr1ZDir
Tkr1Phi Tkr1Theta
Tkr1X0 Tkr1Y0 Tkr1Z0
Tkr1ThetaErr Tkr1PhiErr

Tkr1 Trajectory

Tkr2TkrAngle
Tkr2TkrHDoca

Topology