

OnboardFilter Info Availability

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Analysis Group Meeting

22 March 2004

Status of Filter

- Got latest filter code from JJ
 - Geometry update
 - Better Windows compatibility (with thanks to Navid also)
- Still have to use compiler directives to extract info for TDS
 - JJ is working on a way to put everything we need into a structure
 - We won't have to touch his code at all once that is done

Status of Info Availability

- Putting a few more things into the structure that already goes in TDS
 - Once it is in the TDS, the user will be able to write a UserAlg that emulates the OnboardFilter
- For persistency, Navid will also put necessary info...
 - (1) into a summary tree in the MeritTuple
 - (2) with detailed info into digi.root
 - A new dictionary file will be provided

TDS and ROOT file Content (proposed)

- In the ntuple summary
 - Number of towers triggered
 - Which towers were triggered (16 bit int)
 - Which ACD tiles over threshold (3, 32 bit words)
 - Energy that the filter sees (same as CalEnergySum)
 - The energy per layer (8 element array)
 - Any tracks found (Boolean: yes/no)

More Content

- Structure in digi.root
 - For each triggered tower:
 - Which x layers hit
 - Which y layers hit
 - Locations of x and y layer coincidences
 - For each projection:
 - Whether an x or y projection
 - x layers hit (corresponding to this projection)
 - y layers hit (corresponding to this projection)
 - Starting layer
 - Ending layer
 - Total number of layers hit
 - "intercept" → starting strip number
 - "slope" → number of strips between first layer and second layer hits (clusters)
 - For each x layer:
 - » The hit strips (clusters)
 - For each y layer:
 - » The hit strips (clusters)