Hall C Expert Howto

Experiment: HKS

Detector map file for analyzer

T. Miyoshi

May 22, 2004

Abstract

This document discribes how to make detector map file for analyzer.

1 e01011.map

e01011.map is a text file in MAPS directory. The file specifies ROC number, detector id, slot number, maps which indicates relationship between module channel and detector location. Please check previout example and read this document.

2 Rules

The order of values is as follows:

ROC = roc id

Detector = detector id

slot = slot number

a,b,c,d

a= module channel number(0-32,0-63,or 0-96)

b= Detector plane number

c= Detector channel/wire number

d= ADC+(0)/ADC-(1)/TDC+(2)/TDC-(3)

3 ROC id, detector ID

First, you must write ROC number and detector id.

Detector ID	Number
HDC	1
Hscin	2
AC	3
WC	4
Hmisc	5
Gmics	6
EDC	11
EHODO	12

4 Module mask

Before you write channel the maps, you must set module mask.

Module	Nsubadd	MASK	BSUB
F1TDC	64	FFFFx	16
1877 TDC	96	FFFFx	17
1875A/1872A TDC	64	FFFx	16
1881M ADC	64	1FFFx	17

5 Maps

Then, you specifies slot number and channel number in the module. For chamber data, you write 3 numbers in a column. For the other detector, you write 4 numbers in a column. The first 3 numbers show module channel number,detector plane number, and detector channel or plane number. The 4th number indicates module type adc or tdc. Positive (or right) counter's ADC is 0, negative (or left) counter's ADC is 1, Positive (or right) counter's ADC is 2 and negative (or left) counter's ADC is 3.

6 Comment

It is recommended that you write comment at the number so that everybody recognize them quickly. Comment starts ! mark.

For example:

```
12, 10, 3, 2 !TDC ROC#7 Sl#22 Ch#12 KSCIN pl#10 id sig#3 [TDC]
13, 10, 7, 2 !TDC ROC#7 Sl#22 Ch#13 KSCIN pl#10 id sig#7 [TDC]
14, 10, 4, 2 !TDC ROC#7 Sl#22 Ch#14 KSCIN pl#10 id sig#4 [TDC]
15, 10, 8, 2 !TDC ROC#7 Sl#22 Ch#15 KSCIN pl#10 id sig#8 [TDC]
```