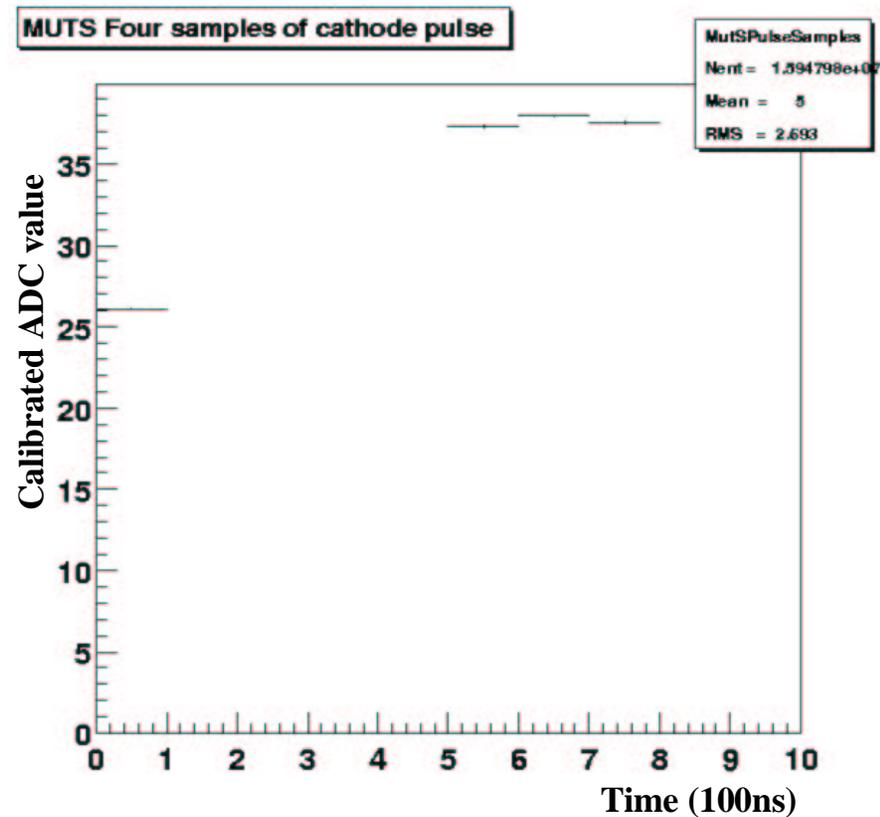


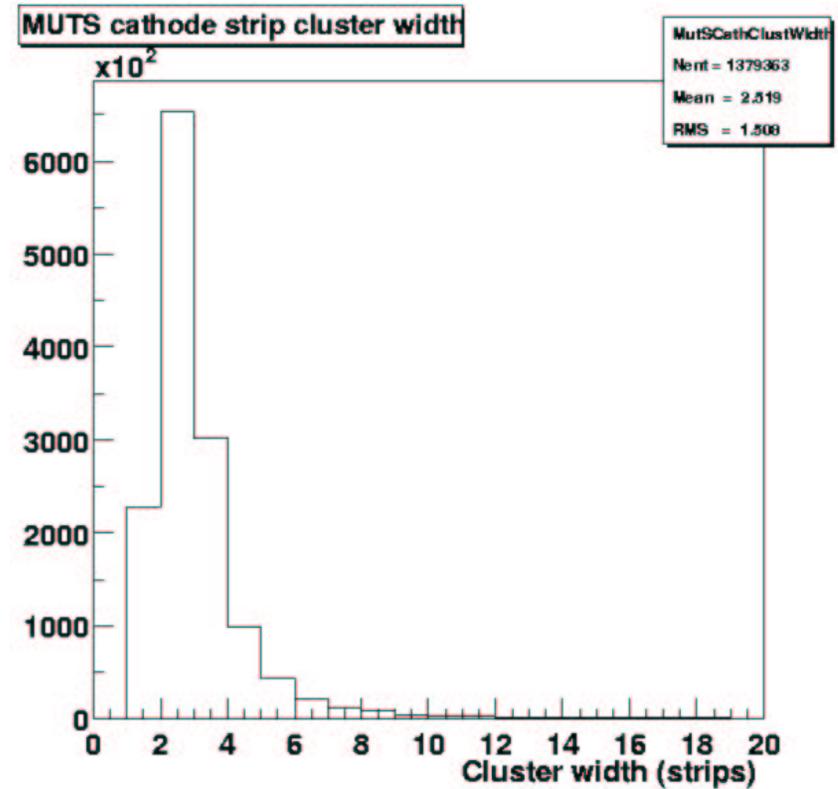
MUTR QA Software

There are many (18) histograms produced by the MUTR QA software.
Some of them are...

Four digitized samples from the cathode pulse

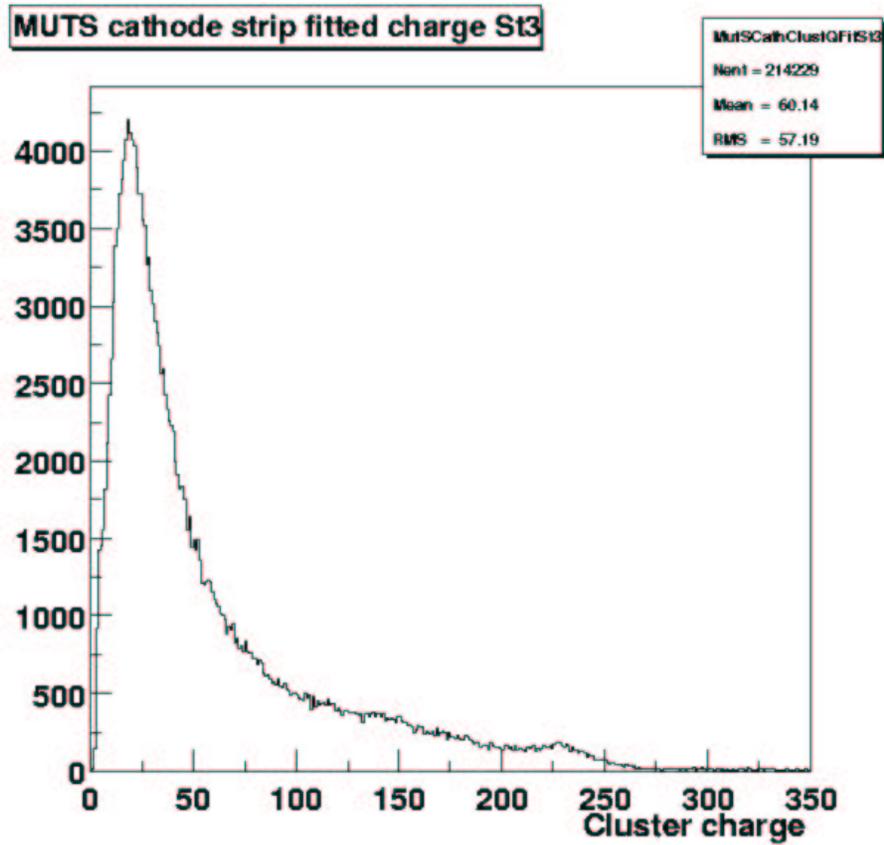


Cathode strip cluster width

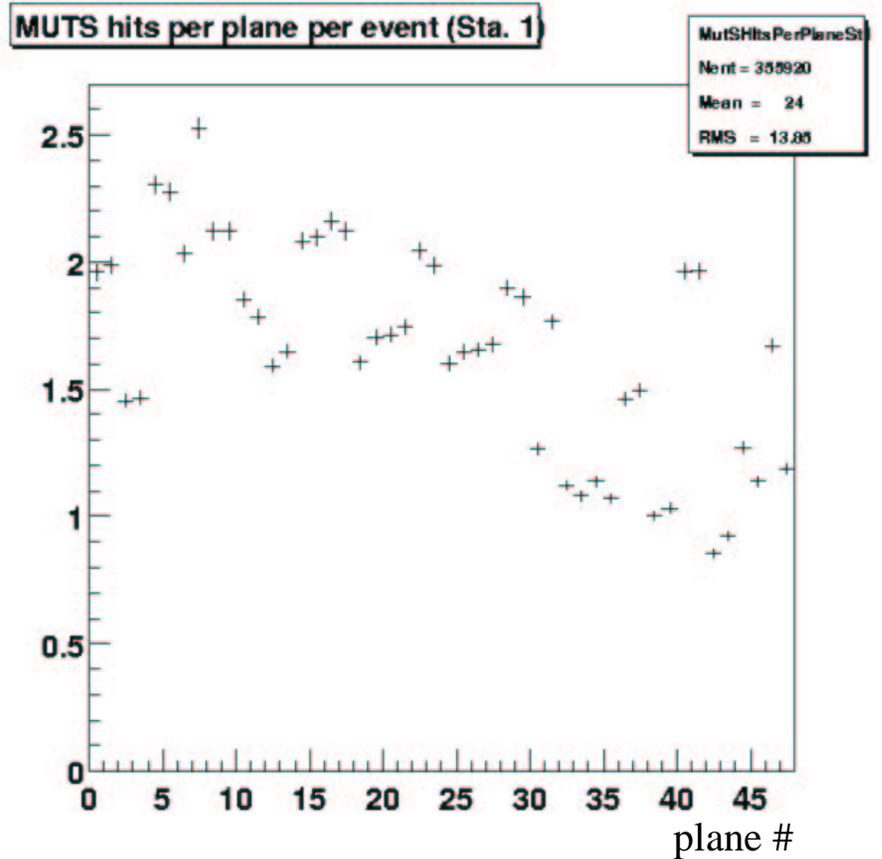


MUTR QA Software

Fitted charge of cathode strip clusters

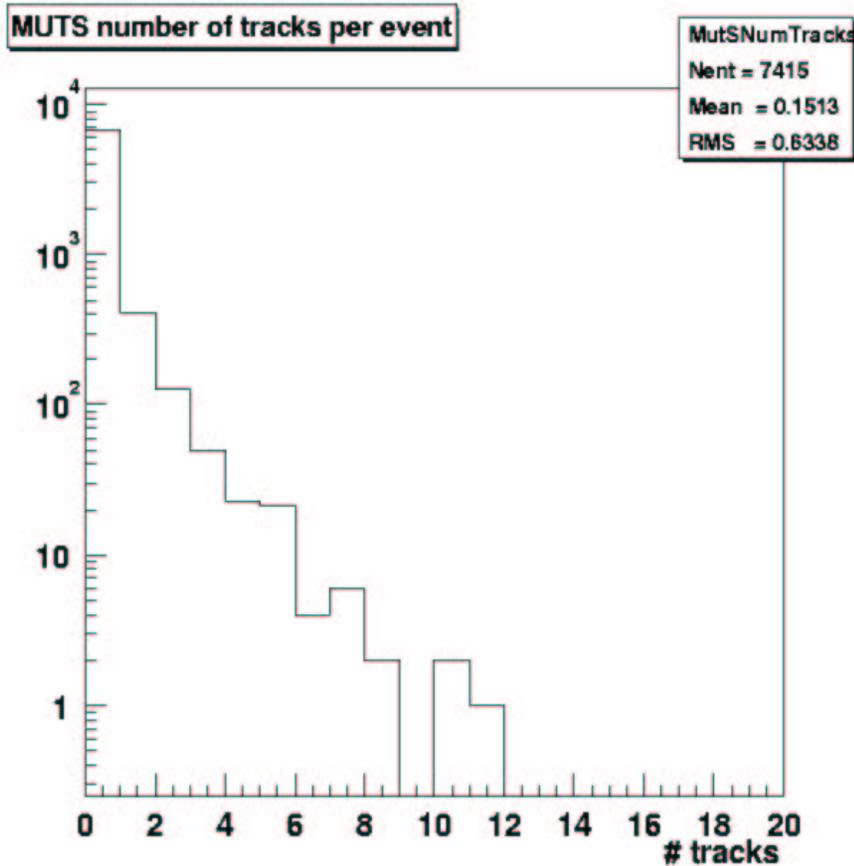


Mean number of fitted cathode clusters per event for each cathode plane

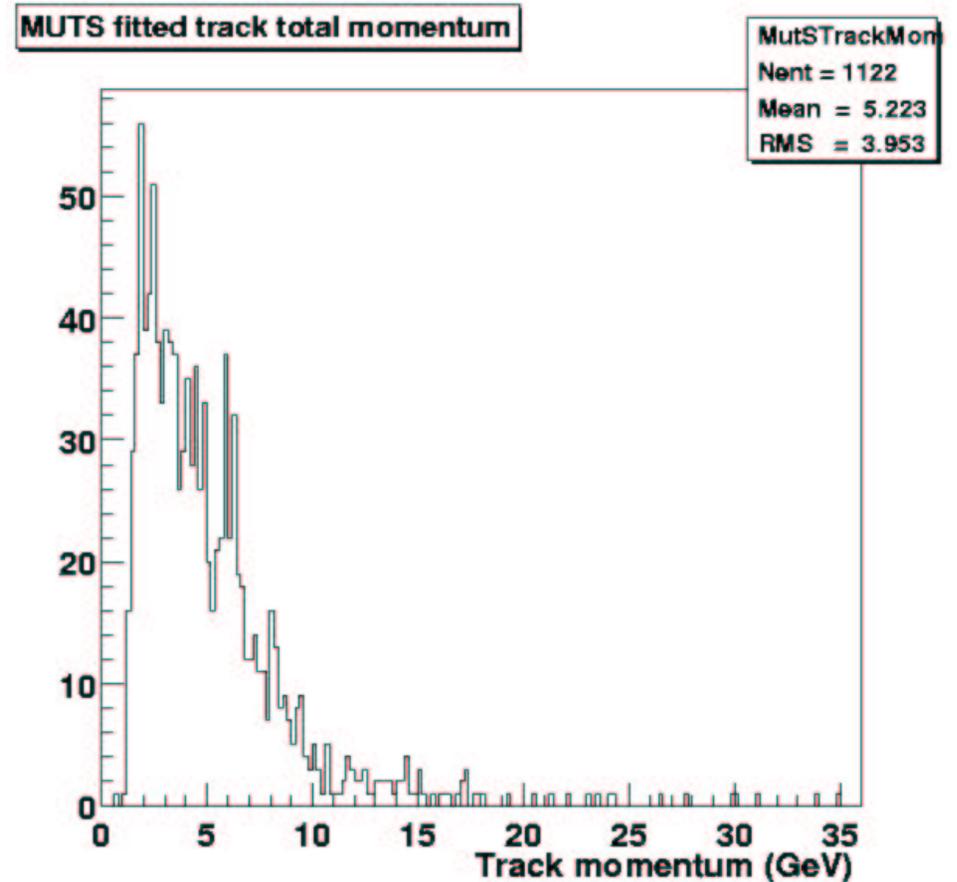


MUTR QA Software

Number of fitted tracks per event



Fitted track momentum



In addition to the histograms, two NTuples are written out. One holds the location and hit average (% of events for which the strip was hit) for any hot strips, and a second holds the location and hit average for all strips that were not hot or dead (the "good" strips).

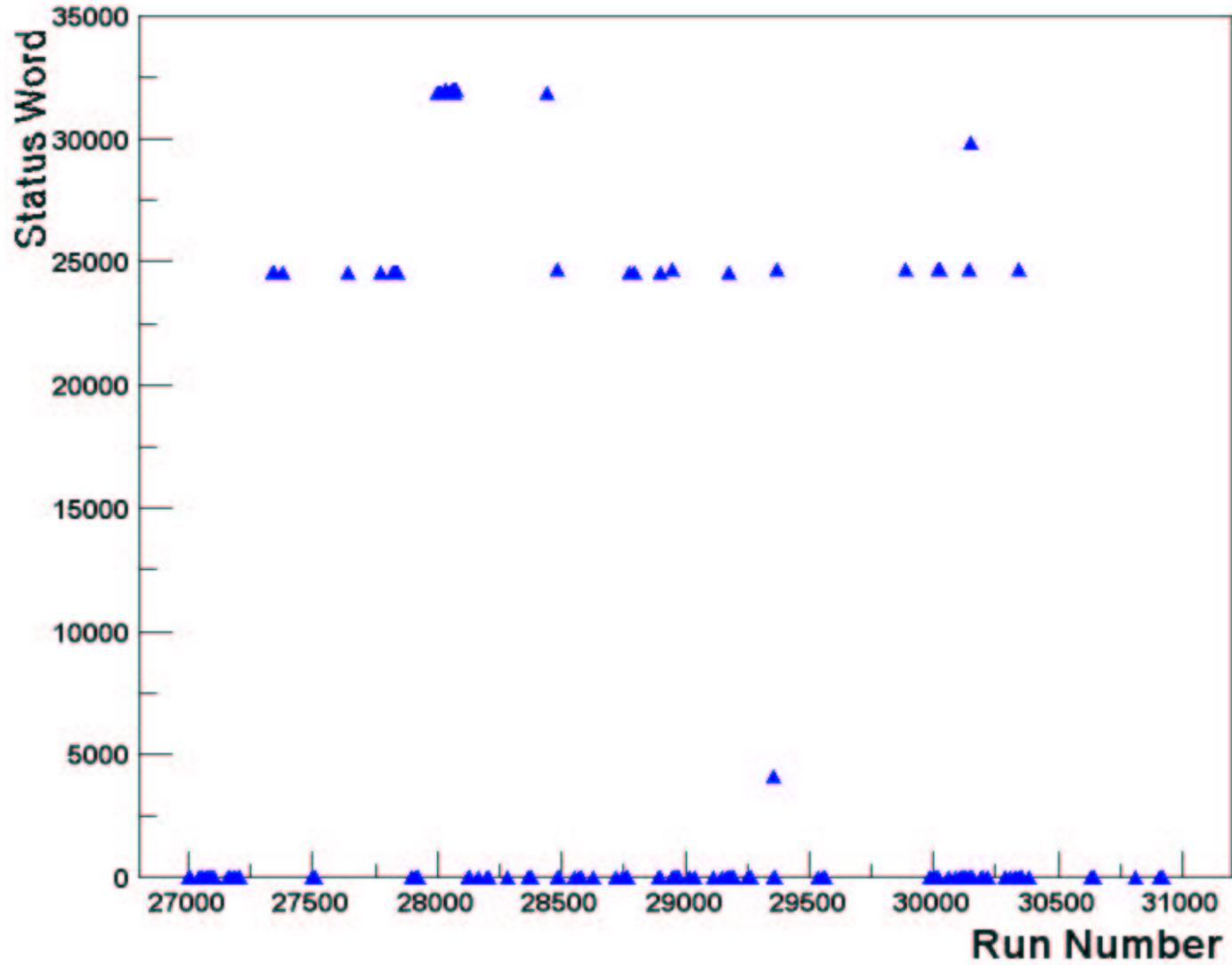
MUTR QA Software

MUTR uses a 15 bit status word:

<u>bit</u>	<u>meaning</u>
1 (1)	overall status indicator (0=good, 1=bad)
2 (2)	questionable data
3 (4)	gain is okay?
4 (8)	timing is okay?
5 (16)	cluster width is okay?
6 (32)	fitted cluster charge is okay?
7 (64)	peak charge of clusters is okay?
8 (128)	number of fitted clusters/event for station 1 is okay?
9 (256)	number of fitted clusters/event for station 2 is okay?
10 (512)	number of fitted clusters/event for station 3 is okay?
11 (1024)	number of dead/hot cathode planes on station 1 is okay?
12 (2048)	number of dead/hot cathode planes on station 2 is okay?
13 (4096)	number of dead/hot cathode planes on station 3 is okay?
14 (8192)	mean fitted track momentum is okay?
15 (16384)	percentage of events with tracks found is okay?

MUTR QA Software

Status word vs. Run Number



MUTR QA Software

Results from QA output generated so far (203 Au runs):

<u>Status word</u>	<u>Occurance</u>	<u>Meaning</u>
0	78%	Data okay, passed all tests.
24577	9%	No tracks found, all other tests passed.
31841	4%	Many dead planes, no tracks found.
24677	3%	Very low gain, no tracks found.
31969	2%	Many dead planes, no tracks found.
24685	1%	Timing was incorrect, no tracks found.
6 others	< 0.5% each	Miscellaneous

Using the status words for analysis:

- status word = 0 indicate the best runs and includes a large fraction of the data.
- bits 1,2,3,4,5,14,15 = 0 is probably a reasonable criteria for identifying good data.
(status word & 24607) = 0
- bits 11,12,13 = 1 indicate a run with an abnormal number of dead/hot channels,
but may still be usable data.
- other bits are probably not critical but provide more detailed information about the run.