Subject: Scalers in prespec software Posted by Michael Reese on Wed, 31 Aug 2016 11:41:00 GMT

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There is a feature in the prespec package, that allows to plot a ratio of two scaler values (s1 and s2) over time.

If the s2 is just the time (the time can be interpreted as scaler value that is increased with a constant frequency), then a plot of the rate of s1 over time is obtained. The keyword for this is

rate s1:s2 resolution, duration

where resolution determines how wide the bins of the rate-histogram will be, and duration says how much time (in units of s2) the rate-histogram covers.

For example, If one adds the following lines to the file "Daq/scaler.config" in the analysis scritp (the one that was running online analysis during 2014 campaign)

processor Blub/test1 UTILS.Pair first <- Daq/Scaler.trlo41_line3_09_ACC_TRIG10_part_sc41_reduced second <- Daq/Scaler.time rate first:second 1.0,100 in test end

processor Blub/test2 UTILS.Pair first <- Daq/Scaler.trlo25_line2_09_Free_TRIG10 second <- Daq/Scaler.time rate first:second 1.0,100 in test end

processor Blub/test3 UTILS.Pair first <- Daq/Scaler.trlo25_line2_09_Free_TRIG10 second <- Daq/Scaler.trlo41_line3_09_ACC_TRIG10_part_sc41_reduced rate first:second 1000.0,1000000 in test end

The following will appear in Go4 (from the lowest histogram, one can read that the ratio of the two scalers is around 1.3)

File Attachments

1) scaler_in_prespec.png, downloaded 965 times

