
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 script (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 294 times
