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

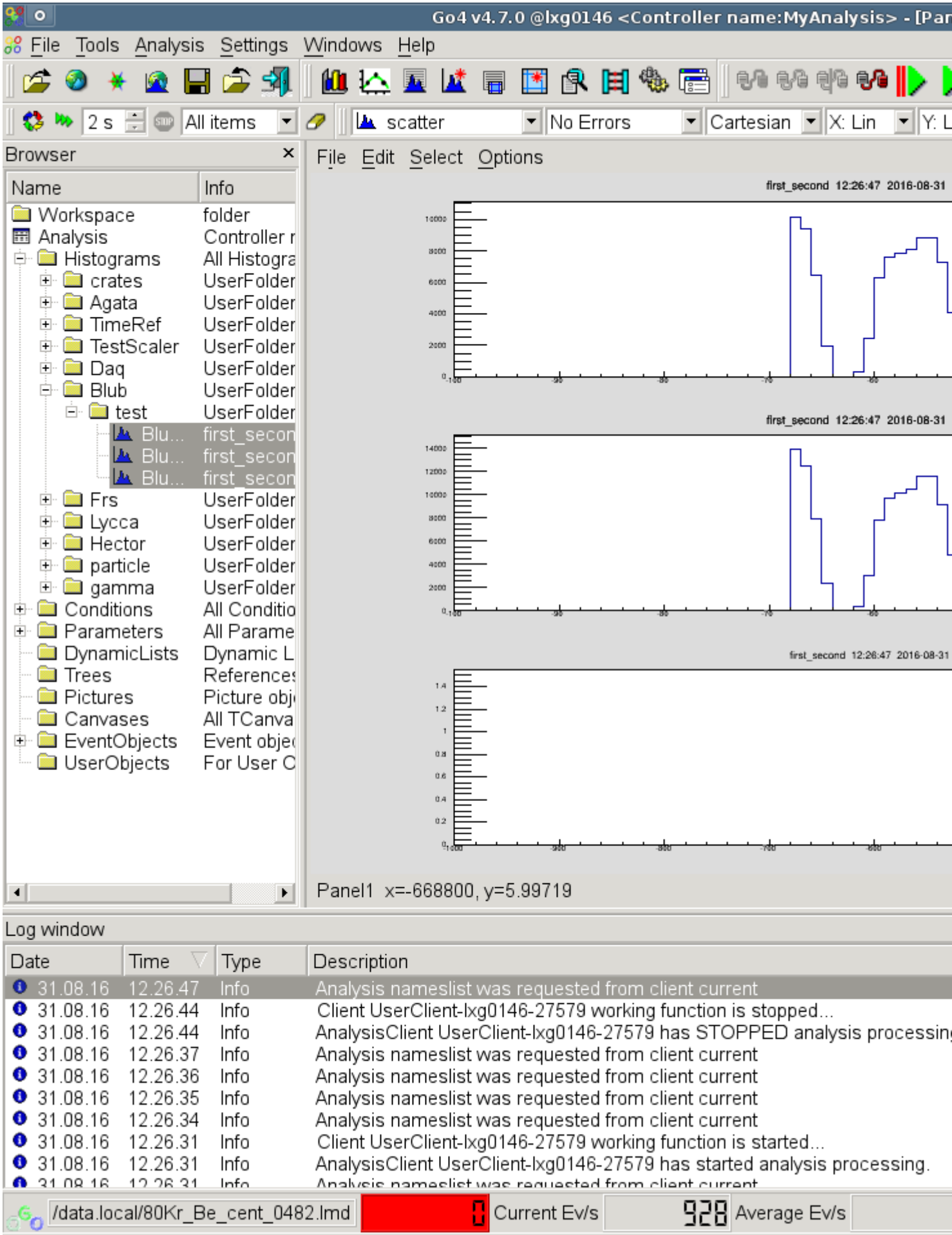
processor Blub/test2 UTILS.Pair
 first <- Daq/Scaler.trlo25_line2_09_Free_TRIG10
 second <- Daq/Scaler.time
 rate first:second 1.0,100 in test
end

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 1522 times


Go4 v4.7.0 @lxg0146 <Controller name:MyAnalysis> - [Par
File Tools Analysis Settings Windows Help
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All items
scatter
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first_second 12:26:47 2016-08-31
first_second 12:26:47 2016-08-31
first_second 12:26:47 2016-08-31
Panel1 x=-668800, y=5.99719
Log window
Date
Time
Type
Description
31.08.16 12.26.47 Info Analysis nameslist was requested from client current
31.08.16 12.26.44 Info Client UserClient-lxg0146-27579 working function is stopped...
31.08.16 12.26.44 Info AnalysisClient UserClient-lxg0146-27579 has STOPPED analysis processing
31.08.16 12.26.37 Info Analysis nameslist was requested from client current
31.08.16 12.26.36 Info Analysis nameslist was requested from client current
31.08.16 12.26.35 Info Analysis nameslist was requested from client current
31.08.16 12.26.34 Info Analysis nameslist was requested from client current
31.08.16 12.26.31 Info Client UserClient-lxg0146-27579 working function is started...
31.08.16 12.26.31 Info AnalysisClient UserClient-lxg0146-27579 has started analysis processing.
/data.local/80Kr_Be_cent_0482.lmd
0
Current Ev/s
928
Average Ev/s