Update on rolling bhabha calibration developments

- last activities and some results
- plans for Run 7
- conclusions & outlook

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last activities

• switched rolling bhabha calibration from test mode to running mode for the last ~2 weeks of Run 6

• original plan: make the switch fast enough to accumulate enough data to have a RC at the end of Run 6

• some delay because of other subsystem's issues: not enough data processed to roll over

• modified plan:
  • extend reprocessing run range to accumulate enough bhabhas for calibration
  • treat calibration as first real RC (write to right condition!)
last activities and results (1)

- again some delay with the PC farm, but last week, calibration ran successfully
- first time writing to correct condition!
- results: only tiny shift in constants (agrees with Run 6 observations)
relative constants map: nothing spectacular!

again, the crysmatec (?) crystals appear

[4...8][75...100]: were cut out during last calibs, need to stabilize

$\Theta=56$: some Xtals were cut out, some not — looks more homogeneous
results (3)

- absolute constants map: looks like it always does :-) 
- overall calibration looks fine
plans for Run 7:

- full automatical running of bhabha calibration
- write to correct condition, later used for analysis
- use a cron job to provide monitoring plots and give information that a calibration took place
- cron job should run every 1 or 2 hours (?)
- use bbr-dev102 (access to all important components)

Currently working on the script (coded in python), tasks:

- look whether a new calibration happened or not
  - check PC1-logfiles of last hour, grep for „magical line“
plans for Run 7 - status

- read new and new – 2 (?) hours constants from Cdb – using FetchEmcCalChan (should work on bbr-dev102)
- read logfile information about dead and noisy channels, non-validated and direct hits cut, etc.
- store everything in a preliminary constants file
- use this file in a root macro to make some plots:
  - absconstants & constants vs. θ and φ
  - distribution of (abs)constants
  - channels with too low direct hits vs. θ and φ
  - map of failed constants vs. θ and φ
- store plots in files
plans for Run 7 - status

- create new directory in the bhabha calibration directory
- store the plots and constants file in the directory
- create a link on the Bhabha calibration homepage
- Send Mail to Experts (Martin & myself + ?)
  - link to logfile
  - maybe some statistics
- if no calibration happened, wait for next iteration
- anything else? If „yes“: please tell me NOW!!!
conclusions & outlook

- implementation of rolling bhabha calibration is on its final steps
- calibration itself works pretty well
- some problems to solve with the script, but nothing serious

- root macro and saving of plots and copying in the right directory should be finished within a week
- create links on the webpage and send mail to experts: ~2 weeks