
Summary of Detector Characterization Activities

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General Remarks

- Engineering Runs:
 - » Strong and enthusiastic participation in scientific monitoring shifts – no trouble filling shifts, even owl shifts
 - » E2 investigation reports very encouraging:
 - Some questions answered
 - Many more raised
 - Good start in figuring out what questions to ask and how to address them – techniques & tools
 - » Looking forward to E3 reports at upcoming DetChar telecons

General Remarks

- Data Monitoring Tool Software
 - » Much progress in DMT monitors since last LSC meeting
 - >10 monitors running continuously during E3
 - Several producing permanent record (trends or database triggers) and online display
 - E2 and E3 investigations both benefitted from the monitors and added impetus for developing / improving them

But...

- Most monitors not truly useful (yet) to operators and not necessarily useful to downstream analysis
- Many “proofs of principle” monitors, but there is urgent need for informative, reliable and convenient tools in the control room
- Such development requires significant time **at the site**

Critical Issue I Cited at August 2000 LSC Meeting

- Better integration of Detector Characterization group into LIGO science at the sites
- Problems I see:
 - Many persons writing / delivering code for DMT, but much of it unused
 - Software not tailored to operator use
 - Authors not on site to educate operators
 - Authors too detached from IFO operation (in general)
 - Some authors not delivering at all
 - Too few scientists on site looking at available data
- Present Status:
 - » Better, but not nearly good enough!
 - » Need dramatic improvement in next several months

Another slide from last August...

- » How to do better?
 - As a minimum, software writers should provide ample documentation, sample programs & makefiles.
 - Better: Tutorials to persons on site.
 - Much better: Extended site visits to shake down code and make it truly useful for data quality monitoring.
 - Even better: Take responsibility for monitoring and regularly reporting on interferometer subsystem.
 - Software writers who promise but don't actually write (*i.e.*, deliver code) should be held accountable:
 - MOU renewal
 - LSC membership review

Still relevant!

Also...

- Although novelty of running scientific monitoring shifts (esp. owl shifts) will wear off by next year, the need to run those shifts will remain
- Engineering runs proving to be valuable training ground for what will be a full time 24/7 enterprise.
- Need to start mental adjustment to that reality

Finally...

- Good dialogue with Upper Limits groups started at this meeting
- More talks tomorrow
- Eager customers for detector characterization info
- Many requested U.L. software tools are same as needed by operators and commissioners

Finally...

- Your opportunity for immortality:
 - » “Matt’s code”
 - » “Rolf’s code:
 - » “<yourname>”’s code / display / monitor