ATLAS SCT Testbeam

October 2001 beamtest at CERN H8

Schedule: 15 - 28 October

- Preparation of DAQ, Characterisation of Modules: 15-22/10
- Installation in Beamline: Start 08:00 on Tuesday 23/10
- Beam: Start 08:00 Wednesday 24/10
- Removal of Modules and decommssioning for 2001: Sunday 28/10
- Extension possible if required and if personnel available

Modules

- 7 (?) Modules Under Test
 - Barrel Irradiated new EPI B044
 - Barrel Irradiated new EPI B047
 - ∘ K-B
 - Barrel KEK
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 - Sintef B043 (?)
 - Forward Middle from Munich
- 6 Reference & Tracking Modules

We request the loan of 5 or 6 barrel modules from the Systemtest or elsewhere (could use also the new KEK barrels for tracking):

- 1 or 2 Reference Modules (included in Threshold Scans as control samples, as usual - specifically request one or two of those used in August, 3T-A chips)
- 4 Tracking Modules (2 X + 2 Y), kept at fixed efficient threshold

Program

- Uncertain as to whether magnet is available will depend on Tiles
- Standard beam for new modules, plus some 25ns studies:
- Standard Running (clock not beam-synchronised, low-intensity, using telescope):

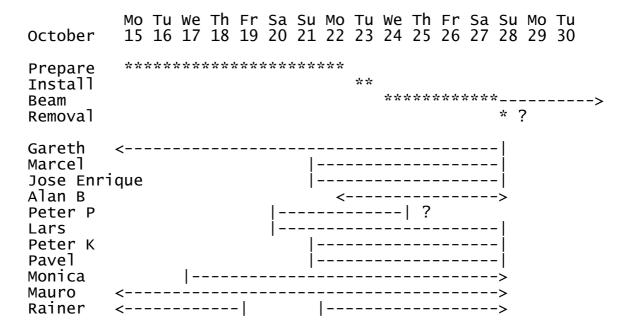
Aim: Standard comparative runs for new modules

- Normal Incidence, Nominal Bias, Threshold Scan standard comparisons
- Bias Scan at Nominal Incidence
- Bias Scan at Maximum Angle
- Angle Scan ?
- Repeat with Magnet ON if possible and time permits
- 25ns Running

Aim: Are there any surprises? 25n run gives us:

- · LHC-like bunch structure with periodic resets, and
- narrow timing w.r.t. clock (1-2 ns)
- Digital performance / event efficiency different Soft Reset & L1A structures
- Analogue performance noise, efficiency with multiple triggers between resets, multiple triggers in buffer etc., and at higher (instantaneous) rates
- Analogue timing performance without TDC cuts using nanosecond delay adjustments... is it the same as normal running with TDC cuts?
- Suggestions and comments to the Program very welcome!

Participants



More welcome!

Gareth Moorhead, SCT Week October 2001