

SR1 宇宙線テストの状況

2006.05.12

First SCT CR data - Maria

- 2006.5.4(Thu.)
 - `/castor/cern.ch/user/i/idcosmic/real_data/SCT_data_while_in_TRT/`
 - `daq_SCTEB__0002519_file01.data`
 - `daq_SCTEB__0002522_file01.data`
 - `daq_SCTEB__0002523_file01.data`
- condDB fibre channel column empty
- LVL1ID crash
- What I didn't like at all was to have the same TimeCollection class in InDetRawDataByteStreamCnv and InDetTB04ByteStream, so I copied it through InDetRawData, and change accordingly SCT_Monitoring.
- `/afs/cern.ch/user/c/costamj/public/SCT_Cosmics/11.4.0/`

You will find my modified versions of:

- InDetCabling
- InDetRawDataByteStreamCnv
- InDetTB04ByteStream
- InDetRawData
- SCT_Monitoring
- InDetTestBeamCBNT

Grant

Hi, In case it helps here is the location of the $\phi=0$ module assumed in the offline geometry.

This is the global ϕ of the module (ignoring the staggering in z):

Layer 0: $\phi = 0.25$ deg

Layer 1: $\phi = -2$ deg

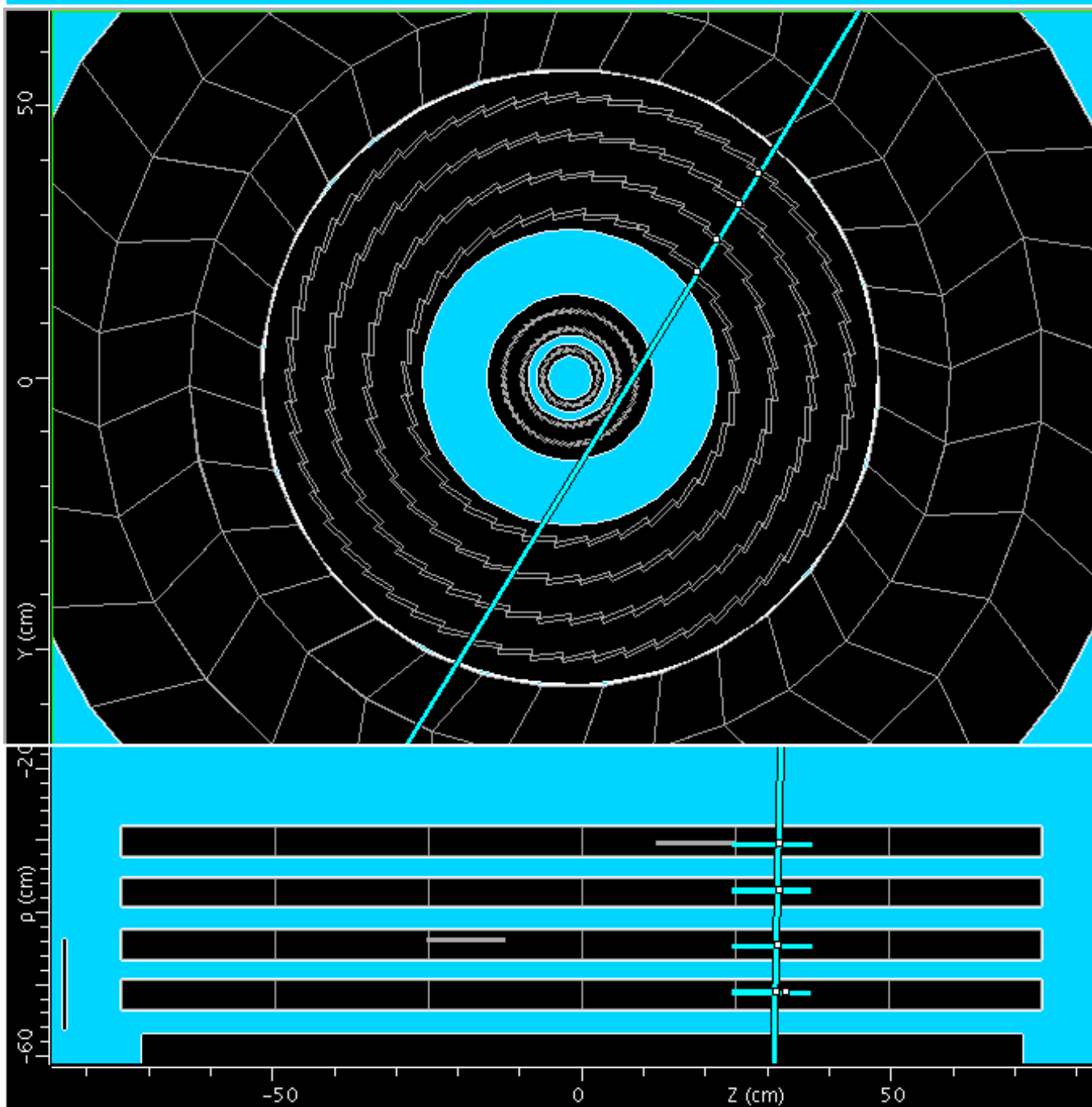
Layer 2: $\phi = 3.75$ deg

Layer 3: $\phi = 1.60714$ deg

Regards, Grant

Maria

- Athena ϕ identifier in Layer 2,3 \rightarrow ϕ -strip numbering 767-strip



Atlantis

- Display SCT RDO's (information at strip level)

AtlantisJava-09-05-14 reads inPixelRDO, SCTRDO datatypes which are produced by JiveXML-00-04-73.

These twodatatypes are not produced by default and you instructJiveXML to do so by ToolSvc.EventData2XML.DataTypes += ["PixelRDO", "SCTRDO"]

SCT eLogbook

- <http://pcphsctr02.cern.ch/cgi-bin/logbook.cgi?locn=SR1&tselected=0&physics=1&logbookIndex=11>

SctRodDaq Online Logbook: at SR1

2006/05/12 04:26 PM

SctRodDaq Online SR1 Logbook

Other web tools (require javascript enabled) : [Data Displays](#) - [Assembly Maps](#) - [Current SctRodDaq Configuration](#)

Select LogBook:

This page is currently listing the **Physics/Cosmics** runs for **SCT Timing Tests** [Click here](#) to list **Calibration Runs**.

[Click here](#) to exclude trashed runs from the list.

Run No	Date	Start	End	#Events	Status	ByteStream	File	Comments
002289	06/04/2006	16:29:01	16:40:21	621	Trash	Download		Noise data only - using the NIM pulsar as the trig... More...
002320	07/04/2006	17:46:36	17:53:48	586	Trash	Download		H8 testbox tests.
002388	21/04/2006	10:31:09	10:39:46	299	Trash	Download		H8 Testbox tests
002389	21/04/2006	11:04:51	11:11:52	155	Trash	Download		H8 testbox tests
002390	21/04/2006	11:18:15	Not finished	0	Trash	Download		H8 test box
002397	25/04/2006	17:02:28	17:26:47	0	Trash	Download		h8 test box
002398	25/04/2006	17:41:26	17:45:03	0	Trash	Download		H8 test box
002399	25/04/2006	18:29:36	18:31:12	2031	Trash	Download		Random h8
002409	27/04/2006	11:44:06	11:53:41	6608	Trash	Download		physics mode. try coincidence histogramming. BD&BJG
002410	27/04/2006	11:57:34	11:58:17	491	Trash	Download		None
002560	09/05/2006	12:20:03	12:22:24	174	Trash	Download		Timing tests
002561	09/05/2006	12:27:08	12:33:12	220	Trash	Download		Timing tests - scanning TX fine delay from 0 to 10... More...
002562	09/05/2006	12:58:03	13:08:02	455	Trash	Download		Timing tests
002563	09/05/2006	13:09:07	13:13:50	181	Trash	Download		Timing tests
002564	09/05/2006	13:21:10	13:22:20	107	Trash	Download		Try debouncing histogramming. BD&BJG

- Expand/Condensed mode, Time delay test (0,10ns,...)
- So I would propose the following:
 - look at the run which is crashing (Kondo whenever you have time, I think not as urgent as the other things you are doing)
 - look at the data quality using the SCT monitoring tools (Luca, Helen, Ewa, the japanese group and Anne-Catherine)
 - look at the data quality using the ntuple (Carlos, Ola, Bjarte, Thijs (if time), Maria)
 - - try to read scintillator information in the last run (Kondo, Luca)

I would like to ask you to change the settings of SiCTBTracking to be:

```
SiCTBTracking.MinNumberOfPointsOnTrack=3
```

```
GlobalChi2Fitter.setChi2Cut([10000,0,5000])
```

Things that I would like to know for each run:

- Kind of errors reported by the DAQ for each hit (if any)
- in those runs taken in expanded mode: number of hits per time bin or even the time bin of the hits associated to tracks
- Module occupancies
- Correlations of both front/back sides of modules.
- number of events in which cosmics seem to be seen. That seem could come from:
 - requiring a reconstructed track
 - requiring a minimum number of space points (3)
 - any other feeling
- track parameters.
- noise occupancy (in those events in which you do have a track, number of hits not associated with the track)
- noisy channels
- efficiencies and noise occupancy per module
- common mode noise analysis ?

Luca's Monitoring plots

<http://www.hep.phy.cam.ac.uk/~fiorini/2586/monitoring.html>

The most important runs to look at today are: 2613 and 2614. They should both have a better timing than previous runs. We should check that that is the case and also see which of the 2 is better. That should be our feedback for tomorrow morning before the combined run with TRT starts.

The presently discussed installation date is **August 3rd** (or close to take). Subtracting 6 wks from this date means that we should aim to conclude our combined testing by June 12 (and include a wk contingency in case we still find an important "last-minute" test).

Wk 8-12/5:

- = TRT status checks on top sector
- = SCT timing-in studies/Cosmics SCT-only for timing checks
- = 1 brief run (Thurs/Fr) of Combined Cosmic run on top sector SCT+TRT to have small cosmics run for offline (~few hours)

Wk 15-19/5:

- = Focus on Noise checks in Combined runs
- = Time delay / X-talk studies /gnd-shielding studies
- = Heater system
- = Basically a systematic & extended version of the initial tests

Wk 22-26/5

- = Commissioning of bottom sector SCT-standalone
- = Any TRT relevant standalone work before uncabbling

Wk 29/5 -2/6=

- Redo/check details of anything that we learned during the Noise/X-talk tests and don't like
- = Combined long cosmics running with Top+Bottom sector (~n x 24h, depending on necessary stat.)

Wk +(wkend) 5-12/6

- = Contingency for tests
- = Either repeat tests or collect more cosmicsComments / thoughts/ further test suggestions very welcome!