Subject: 'timeouts' problem fixed
Posted by Gianluigi Boca on Tue, 23 Mar 2010 18:37:58 GMT

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hallo,
the problem of some events taking too much time for processing with the STT real Patter Recognition has been solved.
As expected, it was caused by 'bad' events in which some very low momentum particles - probably delta rays - originated along the 'main' tracks.
These low momentum tracks continued to spiralize many times into the STT system producing typically 100 hits in few straws.
The PR algorithm then essentially goes nuts. It is not a matter of this particulary algorithm, any algorithm would fail in these situations.
I choose to reject those hits produced by spiralization simply by excluding those straws with multiple hits from the PR.
Noe the situation is back to normal.
Please update your   stt directory
Gianluigi

Subject: Re: 'timeouts' problem fixed
Posted by Johan Messchendorp on Tue, 23 Mar 2010 22:16:06 GMT

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Hi,

Many thanks. It indeed looks much much much more stable than before. I just did a massive test of 1000 jobs, each with 10 events and each with a different random seed on a homogeneous system with 40 cores (64 bit, Suse Enterprise), running the stt QA macros (1 & 4). The outcome is: 989 jobs finished successfully, 9 jobs did not pass the validation test (output has text that contains words like "Segmentation violation" "Segmentation fault" "Abort" "Bus error" "Floating point exception"), and 2 jobs did not finish within 3 hours (timeout). That is already a serious improvement!! The origin of the validation errors, I didn't check, but they also seem to occur with the ideal track finder (so might be related to something else). Two jobs ended with a timeout... hmmmm

Johan.