
Subject: Re: cpu times

Posted by [Mohammad Al-Turany](#) on Fri, 01 Jun 2012 09:15:19 GMT

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Hi,

First of all I am not sure if we really need this discussion here, but any way I run the profiler on the svn rev 15651 (yesterday). The standard sim, digi and then I profile the reco with valgrind and callgrind, all with 10 events. The result is shown below:

I normalize the time to the exec time, if you look at the picture above you will see that we spend:

| | |
|-------------------|------|
| Kalman filter: | 57 % |
| STT track finding | 13 % |
| STT+MVD tracking | 15 % |
| MVD Riemann | 7 % |
| STTMVDGEM | 7 % |

now if you look at the "calls" you will notice that the STT and Kalman (first three in the list above) are taking about 85 % of the time, however going down in the picture you will see that 70 % of the 85% are spend in Geane and glpk code, to make it clear:

we spend 70 % of processing time in external packages

The rest of the code which is 30 % of time has definitely not that much time spent in STL but in other algorithms and IO etc. So assuming that C arrays are much faster (Which I do not agree on!) it make no sense to contaminate the code with non-readable stuff because of speed. One has also to think about debugging and tracing the code e.g: out of bound problems which we already have with the c arrays in the tracking code.

best regards,

Mohammad

File Attachments

1) [task.jpg](#), downloaded 365 times
