

- Prerelease-01-00-00a
- 10000 events $Y(4S) \rightarrow b\bar{b}$ BGx01
- Script resource_management.py provided by Thomas Kuhr for resource estimation
- Tried three kinds of combinations:
 - ❖ 1 fit hypothesis (old release): π
 - ❖ 3 hypotheses (current release): $\pi k p$
 - ❖ 4 hypotheses (added d): $\pi k p d$
- Estimated Disk Space and CPU Time

Disk Space

Size for the tracking branches, compared to MCParticles branch as reference and to the total mDST size

	Total branch size kB/evt			Size difference kB/evt		Ratio with 1 hyp	
	1 hyp	3 hyp	4 hyp	3-1 hyp	4-3 hyp	3/1 hyp	4/1 hyp
mDST	13,54	15,83	16,59	2,29	0,76	1,17	1,22
Track	0,02	0,03	0,03	0,01	0,01	1,76	2,22
TrackFitResults	1,42	3,69	4,44	2,27	0,75	2,59	3,12
MCParticles	3,31	3,31	3,31	0,00	0,00	1,00	1,00

mDST size increases of 17% with 3 fit hypotheses, up to 22% with 4 hypotheses

TrackFitResults size increase does not scale exactly with number of fit hypothesis:

➤ 3 hypotheses -> size x 2.59

➤ 4 hypotheses -> size x 3.12

Computing Time

	Total computing time s/evt			Time difference s/evt		Ratio with 1 hyp	
	1 hyp	3 hyp	4 hyp	3-1 hyp	4-3 hyp	3/1 hyp	4/1 hyp
mDST	6,40	6,83	7,00	0,43	0,17	1,07	1,09
SumSimulation	4,61	4,61	4,61	0,00	0,00	1,00	1,00
SumTracking	1,19	1,61	1,78	0,42	0,17	1,35	1,49
TrackCreator time	0,01	0,30	0,42	0,29	0,13	56,17	80,45
Comb_DAFRecoFitter t	0,15	0,15	0,15	0,00	0,00	1,00	1,03
SumTracking-TrackCreator	1,19	1,32	1,36	0,00	0,00	1,11	1,14

- mDST time increases of 7% with 3 fit hypotheses, up to 9% with 4 hypotheses
- TrackCreator time negligible with one hypothesis, much slower with more than 1 hyp (?)
- Simulation and non-TrackCreator stuff changed a bit with number of hyp (?)
- I have rescaled the numbers of 1 hyp by the SumSimulation time, since it was slower