



CMS AOD Writing Memory Comparison

Dr Christopher Jones

CCE SOP Meeting

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AOD Memory Write Comparison

Storage Configuration	Max Outstanding Allocations		Difference Old to New ROOT	Overhead for New ROOT	Difference from TTree for New ROOT	File Size	File Size Ratio
	Old ROOT	New ROOT					
No Output	842,128,400	842,128,400	0	0			
TTree	1,365,851,992	1,350,532,736	-15,319,256	508,404,336	-15,319,256	4,000,798,304	100.00%
RNTuple	2,351,522,504	1,841,519,336	-510,003,168	999,390,936	475,667,344	3,487,845,427	87.18%
RNTuple noBufWrite	1,543,954,624	1,583,048,560	39,093,936	740,920,160	217,196,568	3,563,222,955	89.06%
RNTuple select No Split Fields	2,358,814,824	1,851,988,656	-506,826,168	1,009,860,256	486,136,664	3,366,515,788	84.15%
RNTuple select No Split Fields zipCluster25M	2,018,192,176	1,778,196,480	-239,995,696	936,068,080	412,344,488	3,401,679,409	85.03%
RNTuple select No Split fields noBuffWrite	1,513,042,232	1,580,748,008	67,705,776	738,619,608	214,896,016	3,443,085,598	86.06%
RNTuple useStreamer	1,766,328,840	1,852,928,176	86,599,336	1,010,799,776	487,076,184	3,931,463,962	98.27%
RNTuple useStreamer noBuffWrite	1,072,140,704	1,086,110,464	13,969,760	243,982,064	-279,741,528	3,989,902,048	99.73%