

How to set up FZK for LHCb (v0.1)

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References

- Input from LHCb

Amount of disk to be provided

- 182TB

Inter-site I/O rates (to/from space token)

T1<-T0	6.3 MB/s	to	LHCb_BUFFER
T1<-T1	11.6 MB/s	to	LHCb_DST, LHCb_MC_DST
T1<-T2	0.2 MB/s	to	...
T1->T2	11.4 MB/s	from	LHCb_M-DST, LHCb_MC_M-DST, LHCb_DST, LHCb_MC_DST
T1->T1	8.8 MB/s	from	LHCb_M-DST, LHCb_MC_M-DST

Buffers to be considered

- WAN buffer
- LAN buffer : "pin" raw data for a few days: $3d * 6.3 \text{ MB/s} = 1.6 \text{ TB}$

Space token sizes for FZK and total, corresponding storage class

Space Token Description	FZK size in TB	Total Size in TB	Storage Class	Notes
LHCb_BUFFER	16	120	T1D1	T1D0 transition after processing
LHCb_M-DST	14	110	T1D1	
LHCb_DST	87	665	T0D1	
LHCb_MC_M-DST	25	190	T1D1	
LHCb_MC_DST	25	190	T0D1	
LHCb_USER	15	115	T1D1	Small Files
TOTAL	182	1390		

Real and MC data together, I/O rates

LHCb_BUFFER	16	T1D1	6.3 MB/sec in from T0	6.3 MB/sec out to tape
				6.3 MB/sec out to reco jobs
			3.6 MB/sec in from reco	
			(320/560*6.3)	
				3.6 MB/sec out to tape
				3.6 MB/sec out to stripping
TOTAL			9.9 MB/s in	19.8 MB/s out

LHCb_M-DST	39	T1D1	XXX MB/sec in from stripping	XXX MB/sec out to tape
				8.8 MB/sec out to T1

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				3.0 MB/sec out to T2
				XXX MB/sec out to analysis
TOTAL			XXX MB/s in	XXX MB/s out

LHCb_DST	111	T0D1	11.6 MB/sec in from T1	XXX MB/sec out to analysis
				8.4 MB/sec out to T2
TOTAL			XXX MB/s in	XXX MB/s out

LHCb_USER	15	T1D1	XXX MB/sec in from analysis	XXX MB/sec out to analysis
				XXX MB/sec out to tape
TOTAL			XXX MB/s in	XXX MB/s out

-- FlaviaDonno - 05 Feb 2007

This topic: LCG > GSSDLHCBFZK
 Topic revision: r2 - 2007-02-06 - unknown



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