

LHCb Computing Model

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I Brazilian LHC Computing Workshop



Outline

LHCb
Computing
Model

Miriam
Gandelman

Computing
Model

Brazilian
Contribution

Prospects

1 Computing Model

2 Brazilian Contribution

3 Prospects

Schematic of the LHCb Computing Model

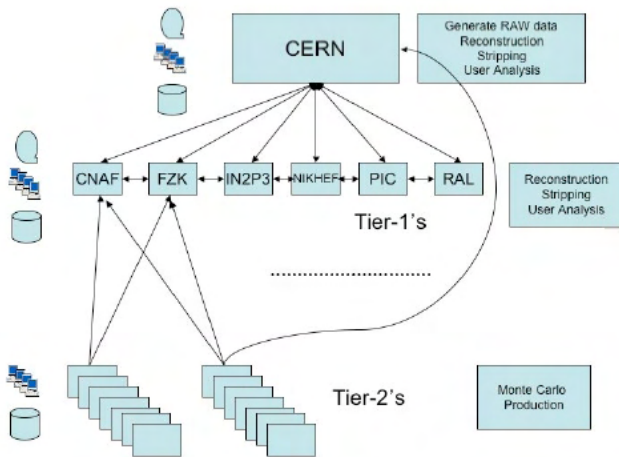
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CPU, disk and mass storage requirements...

- CPU requirements (MSI2k.year):

	CERN	Tier1	Tier2	Total
Stripping	0.17	1.03	0.0	1.20
Full Reco	0.40	2.42	0.0	2.82
Monte Carlo	0.0	0.0	7.6	7.6
Analysis	0.32	0.97	0.0	1.29
Total	0.90	4.42	7.65	12.97

- 1 pentium 4 Xenon == 824 SI2k

■ disk requirements (TB):

	CERN	Tier1	Tier2	Total
RAW	136	0	0	136
rDST	136	0	0	136
Strip DST	440	1954	23	2417
TAG	45	267	0	312
Analysis	70	210	0	280
Total	826	2432	23	3281

■ mass storage requirements (TB):

	CERN	Tier1	Total
RAW	500	500	1000
rDST	143	857	1000
Strip DST	636	636	1272
TAG	80	80	160
Total	1359	2074	3433

CPU (MSI2k.yr)	2006	2007	2008	2009	2010
CERN	0.27	0.54	0.90	1.25	1.88
Tier1	1.33	2.65	4.42	5.55	8.35
Tier2	2.29	4.59	7.65	7.65	7.65
Total	3.89	7.78	12.97	14.45	17.88

Disk (TB)

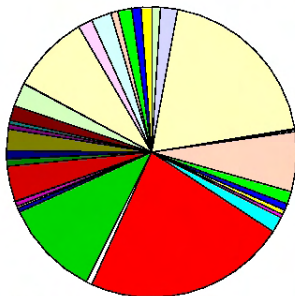
CERN	248	496	826	1095	1363
Tier1	730	1459	2432	2897	3363
Tier2	7	14	23	23	23
Total	984	1969	3281	4015	4749

MSS (TB)

CERN	408	825	1359	2857	4566
Tier1	622	1244	2074	4285	7066
Total	1030	2069	3433	7144	11632

- Monte Carlo Data Challenges: 2003, 2004 and 2005
- 4 dual CPU machines
- DIRAC agent (not yet in LCG)

Total Running Jobs: 2049
DIRAC: 31% LCG: 68%



DIRAC.Barcelona.es	0.976%
DIRAC.Bologna-T2.it	1.903%
DIRAC.CERN.ch	19.52%
DIRAC.CracowAgg.pl	0.146%
DIRAC.IF-UFRJ.br	0.195%
DIRAC.Lyon.fr	6.637%
DIRAC.Santiago.es	1.415%
DIRAC.Zurich.ch	0.732%
LOG.BHAM-HEP.uk	0.536%
LOG.Barcelona.es	0.390%
LOG.Bari.it	1.756%
LOG.CERN.ch	22.54%
LOG.CGG.fr	0.683%
LOG.CNAF.it	10.78%
LOG.CNS.es	0.439%
LOG.Catania.it	0.244%
LOG.Ferrara.it	0.536%
LOG.IFCA.es	0.048%
LOG.IHEP.su	3.953%
LOG.IN2P3.fr	0.780%
LOG.ITEP.ru	0.927%
LOG.Imperial.uk	2.391%
LOG.Iowa.us	0.536%
LOG.JINR.ru	0.439%
LOG.KFKI.hu	1.659%
LOG.Legnaro.it	2.635%
LOG.Montreal.ca	0.048%
LOG.NIKHEF.nl	8.735%
LOG.PIC.es	1.610%
LOG.Padova.it	2.244%
LOG.SARA.nl	0.780%
LOG.Torino.it	1.561%
LOG.UCL-CC.uk	1.024%
LOG.USC.es	1.171%

Jan 04 2005, 19:30

- Enter DC06 as part of LCG
- Be part of a Brazilian Tier2 and contribute to the LHCb Monte Carlo production task force.