-- HarryRenshall - 06 Mar 2006

Last Updated 31.7.2007: Add plans for Atlas M4 cosmics run 23 August to 2 September.

Updated 25.06.2007: Split off 2006 plans into a separate linked page and remove LHC engineering run.

Updated 04.06.2007: Extend LHCb requirements to the end of 2007.

Updated 31.05.2007: Add in 3D database disk and server requirements and LHCb and ATLAS quantitative requirements for 3Q.

Updated 6.3.2007: Add indicators of ALICE p-p and LHCb dress-rehearsals.

Updated 1.03.2007: Precise plans for Atlas February/March Data Distribution tests (see https://twiki.cern.ch/twiki/bin/view/Atlas/TierZero20071). Change Atlas share from 13% to 12.5%.

Updated 15.01.2007: Move the ATLAS Tier0 export tests from 15 Jan to new preliminary date of end Feb.

Updated 17.11.2006: For ATLAS revise (downwards, especially in disk) MC requirements for first half of 2007.

Updated 2.11.2006: For ATLAS revise 4Q2006 MC requirements, add MC plans up to mid-2007 and add January 2007 Tier-0 and export exercise.

Updated 27.10.2006: for ALICE continue the data export tests till end 2006 and add resource requirements for all of 2007.

Updated 23.10.2006: add/change LHCB requirements for Oct to April 2007 from the spreadsheet of 26 Sep 2006.

Updated 01.09.2006: add LHCB requirements for Oct/Nov/Dec from the July spreadsheet.

Updated 21.08.2006: extend ALICE data export till August and continue ATLAS data export till end September.

Updated 10.07.2006: replace LHCB spreadsheet with version of 7 July 2006

Updated 12 June to update Atlas June plans.

Updated 22.05.2006: replace LHCB spreadsheet with version of 11 May 2006

Updated 8 May to add link to LHCB detailed planning spreadsheet to the header of the site LHCB Requirements.

NIKHEF-Amsterdam Site Resource Requirements Timetable for 2006

NIKHEFTimeTable2006

NIKHEF-Amsterdam Site Resource Requirements Timetable for 2007

Tier 1 NIKHEF-Amsterdam.	To provide 10% of ALICE July resources	To provide 12.5% of ATLAS resources	To provide 23% of LHCB resources	
Month		ATLAS Requirements		

	ALICE Requirements		LHCB Requirements (See LHCb070529.xls)	Tier 0 Requirements
January 2007	During first quarter build up to a data challenge of 75% of the last quarter (data taking) capacity using new site capacity as and when available. Require up to 131 KSi2K cpu, 54 TB disk and 106 TB tape at NIKHEF. Export rate from CERN to NIKHEF will be 23 MB/s.	Provide 225 KSi2K of cpu each month and an additional 8.6 TB of permanent disk plus an additional 12.3 TB of permanent tape storage for this quarter for MC event generation.	Provide 386 KSi2K of cpu for reconstruction and analysis and MC event generation with an additional 4.2 TB of tape and 12.1 TB of disk.	CERN background disk-disk top up to 150MB/sec
February	During first quarter build up to a data challenge of 75% of the last quarter (data taking) capacity using new site capacity as and when available. Require up to 131 KSi2K cpu, 54 TB disk and 106 TB tape at NIKHEF. Export rate from CERN to NIKHEF will be 23 MB/s.	Provide 225 KSi2K of cpu for MC event generation.	Provide 386 KSi2K of cpu for reconstruction and analysis and MC event generation with an additional 4.2 TB of tape and 12.1 TB of disk.	CERN background disk-disk top up to 150MB/sec
March	During first quarter build up to a data challenge of 75% of the last quarter (data taking) capacity using new site capacity as and when available. Require up to 131 KSi2K cpu, 54 TB disk and 106 TB tape at NIKHEF. From 26 March for 7 days participate in WLCG multi-VO 65% milestone so import at 2 MB/s from CERN.	Provide 225 KSi2K of cpu for MC event generation. From 5 March begin 3 week data distribution tests. Rampup to full 2008 rate from Tier 0 during first week. Raw from Tier 0 to reach 40 MB/s, ESD to reach average of 50 MB/s and AOD to reach 20 MB/s. Raw data to go to tape then can be recycled. ESD and AOD to go to disk and can be recycled but during last two weeks AOD should be distributed to associated Tier 2, requiring up to 5.2 TB of disk buffer, before being recycled. From 26 March participate in all-experiment service	Provide 377 KSi2K of cpu for reconstruction and analysis and MC event generation with an additional 2.5 TB of tape and 10.3 TB of disk.	CERN background disk-disk top up to 150MB/sec

		challenge milestone taking 65% of the average 2008 rate as above but without AOD redistribution for the next 7 days.		
April	Require up to 131 KSi2K cpu, 54 TB disk and 106 TB tape at NIKHEF. Starting in April and continuing throughout the year build up to full-scale dress rehearsal of p-p running with raw data (at 3 MB/s) and ESD (an additional 10% of the raw) import from CERN, reconstruction at Tier-1 and user analysis and simulation at Tier-2. The data are to be stored in a Tape1Disk1 class storage but where ALICE will manage the disk space.	Provide 450 KSi2K of cpu each month and an additional 17.3 TB of permanent disk plus an additional 24.7 TB of permanent tape storage for this quarter for MC event generation. Provide a permanent 300 GB of disk space and 3 DB servers for ATLAS conditions and event tag databases.	Provide 377 KSi2K of cpu for reconstruction and analysis and MC event generation with an additional 2.5 TB of tape and 10.3 TB of disk. Provide a permanent 100 GB of disk space and 2 DB servers for LHCb conditions and LFC replica databases.	CERN background disk-disk top up to 150MB/sec
May	Require up to 131 KSi2K cpu, 54 TB disk and 106 TB tape at NIKHEF. Export rate from CERN to NIKHEF will be 23 MB/s.	Provide 450 KSi2K of cpu for MC event generation. Repeat February/March data distribution tests.	Provide 35 KSi2K of cpu for stripping, reconstruction and analysis with an additional 0.1 TB of tape and 5.3 TB of disk.	CERN background disk-disk top up to 150MB/sec
June	Require up to 131 KSi2K cpu, 54 TB disk and 106 TB tape at NIKHEF. Export rate from CERN to NIKHEF will be 23 MB/s.	Provide 450 KSi2K of cpu for MC event generation.	Start import of simulated raw data from CERN at 9.1 MB/s. Provide 35 KSi2K of cpu for stripping, reconstruction and analysis with an additional 0.1 TB of tape and 5.3 TB of disk.	CERN background disk-disk top up to 150MB/sec
July	Require up to 131 KSi2K cpu, 54 TB disk and 106 TB tape at NIKHEF. Export rate from	Start preparations/testing for full scale (2008 running) dress rehearsal.	Continue import of simulated raw data from CERN at 9.1 MB/s. Provide 53 KSi2K of cpu for	CERN background disk-disk top up to 150MB/sec

	CERN to NIKHEF will be 23 MB/s.		stripping, reconstruction and analysis with an additional 0.1 TB of tape and 0.3 TB of disk plus 5.1 TB of temporary disk.	
August	Require up to 131 KSi2K cpu, 54 TB disk and 106 TB tape at NIKHEF. Export rate from CERN to NIKHEF will be 23 MB/s.	Continue rampup of full scale dress rehearsal. From 23 August to 2 September take M4 cosmics data from Tier 0 for 50% of this time: peak rates of raw data at 17 MB/s, esd at 2 MB/s and whole aod at 4 MB/s. Total of 8 TB of raw to go to tape for recall in September reprocessing. Total of 3TB of esd+aod to go to permanent disk with aod redistribution to requesting Tier2. All data to be kept until M6 cosmics run at the end of December 2007. See PlanningM4	Provide 27 KSi2K of cpu for stripping, reconstruction and analysis with an additional 0.1 TB of tape and 0.3 TB of disk.	CERN background disk-disk top up to 150MB/sec
September	Require up to 131 KSi2K cpu, 54 TB disk and 106 TB tape at NIKHEF. Export rate from CERN to NIKHEF will be 23 MB/s.	Reach rates of full scale dress rehearsal. Take raw data from CERN (raw is to go to tape) at 40 MB/sec, ESD at 50 MB/sec and AOD at 20 MB/sec. Send and receive data from Tier-1 and Tier-2 according to the Megatable spreadsheet values (see link on first page of this Twiki).	Provide 66 KSi2K of cpu for stripping, reconstruction and analysis with an additional 1.1 TB of tape and 4 TB of disk.	CERN background disk-disk top up to 150MB/sec
October	Require up to 131 KSi2K cpu, 54 TB disk and 106 TB tape at NIKHEF. Export rate from CERN to NIKHEF will be 23 MB/s.	Stable running of full scale dress rehearsal.	Provide 35 KSi2K of cpu for stripping, reconstruction and analysis with an additional 0.7 TB of tape and 5.3 TB of disk.	CERN background disk-disk top up to 150MB/sec
November	For eventual Data Taking startup require up to 174 KSi2K cpu, 72 TB disk and 142 TB tape at NIKHEF. Export rate from CERN to NIKHEF will be 30 MB/s.	Provide a permanent 1000 GB of disk space and add DB servers if needed for ATLAS conditions and event tag databases.	Provide a permanent 300 GB of disk space and add DB servers if needed for LHCb conditions and LFC replica databases. Provide 27 KSi2K of cpu for stripping, reconstruction and analysis with an additional 0.1 TB of	CERN background disk-disk top up to 150MB/sec

			tape and 0.3 TB of disk.	

|December|For eventual Data Taking startup require up to 174 KSi2K cpu, 72 TB disk and 142 TB tape at NIKHEF. Export rate from CERN to NIKHEF will be 30 MB/s.| |Provide 27 KSi2K of cpu for stripping, reconstruction and analysis with an additional 0.1 TB of tape and 0.3 TB of disk.|CERN background disk-disk top up to 150MB/sec |

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