



WLCG Accounting Report
December 2006
Tier-1 Centres + CERN



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre Summary of CERN + Tier-1s

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	12,404
Disk (Tbytes)	4,381
Tape (Tbytes)	5,545

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

CPU used - KSI2K-days			Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU * monthly average	aggregate 2006 to date***	
																	total
CPU Grid	ALICE	cpu	1,715	875		1,330	3,750	8,085	9,280	8,262	11,799	13,953	12,902	16,522		88,473	
		wall	2,071	1,050	8	1,562	6,264	11,372	13,402	14,817	31,771	23,267	21,194	24,018		150,796	
	ATLAS	cpu	14,602	24,397	33,445	47,974	41,477	39,482	37,873	21,097	27,786	43,268	50,875	71,258		453,534	
		wall	21,287	28,429	37,283	53,027	51,222	46,456	46,095	31,477	40,077	74,566	85,527	103,397		618,843	
	CMS	cpu	13,040	13,769	14,359	17,054	10,317	13,951	16,773	47,013	62,952	18,109	27,542	29,177		284,056	
		wall	22,901	24,561	24,461	31,344	84,787	27,230	29,170	66,463	75,165	29,419	52,071	51,230		518,802	
	LHCb	cpu	1,134	1,815	5,480	7,260	32,390	26,955	35,560	50,198	34,657	38,850	28,197	23,426		285,922	
		wall	4,056	3,311	7,435	8,401	46,983	36,346	45,850	59,539	40,094	44,414	50,280	35,450		382,159	
	TOTAL	cpu	30,491	40,856	53,284	73,618	87,934	88,473	99,486	126,570	137,194	114,180	119,516	140,383	316,302	1,111,985	29%
		wall	50,315	57,351	69,187	94,334	189,256	121,404	134,517	172,296	187,107	171,666	209,072	214,095	n/a	1,670,600	n/a
CPU Non-Grid	ALICE	cpu	3,312	2,389	615	2,670	4,122	1,490	200	1,426	1,456	930	755	150		19,515	
		wall	5,027	4,218	1,949	3,542	6,483	2,219	1,075	2,857	3,287	2,738	5,539	1,034		39,968	
	ATLAS	cpu	20,348	25,584	21,997	23,970	28,366	20,305	15,099	18,762	16,541	13,152	19,900	16,410		240,434	
		wall	33,867	32,660	28,259	34,551	43,128	23,872	36,856	33,518	30,768	64,845	32,974	31,543		426,841	
	CMS	cpu	11,069	25,646	26,782	14,892	16,081	9,160	12,230	13,418	9,482	23,303	8,033	24,880		194,976	
		wall	19,444	33,818	40,640	23,639	48,385	16,424	23,154	22,941	15,246	34,951	15,194	40,636		334,472	
	LHCb	cpu	2,526	2,953	3,584	3,456	3,666	3,036	4,860	3,389	4,156	8,171	5,184	3,421		48,402	
		wall	5,028	4,775	7,113	6,390	16,860	4,946	6,844	5,097	6,935	11,386	8,366	5,390		89,130	
	TOTAL	cpu	37,255	56,572	52,978	44,988	52,235	33,991	32,389	36,995	31,635	45,556	33,872	44,861	316,302	503,327	13%
		wall	63,366	75,471	77,961	68,122	114,856	47,461	67,929	64,413	56,236	113,920	62,073	78,603	n/a	890,411	n/a
CPU Total	ALICE	cpu	5,027	3,264	615	4,000	7,872	9,575	9,480	9,688	13,255	14,883	13,657	16,672		107,988	
		wall	7,098	5,268	1,957	5,104	12,747	13,591	14,477	17,674	35,058	26,005	26,733	25,052		190,764	
	ATLAS	cpu	34,950	49,981	55,442	71,944	69,843	59,787	52,972	39,859	44,327	56,420	70,775	87,668		693,968	
		wall	55,154	61,089	65,542	87,578	94,350	70,328	82,951	64,995	70,845	139,411	118,501	134,940		1,045,684	
	CMS	cpu	24,109	39,415	41,141	31,946	26,398	23,111	29,003	60,431	72,434	41,412	35,575	54,057		479,032	
		wall	42,345	58,379	65,101	54,983	133,172	43,654	52,324	89,404	90,411	64,370	67,265	91,866		853,274	
	LHCb	cpu	3,660	4,768	9,064	10,716	36,056	29,991	40,420	53,587	38,813	47,021	33,381	26,847		334,324	
		wall	9,084	8,086	14,548	14,791	63,843	41,292	52,694	64,636	47,029	55,800	58,646	40,840		471,289	
	TOTAL	cpu	67,746	97,428	106,262	118,606	140,169	122,464	131,875	163,565	168,829	159,736	153,388	185,244	316,302	1,615,312	43%
		wall	113,681	132,822	147,148	162,456	304,112	168,865	202,446	236,709	243,343	285,586	271,145	292,698	n/a	2,561,011	n/a
		installed capacity**		225	225	8,405	8,385	8,336	8,529	9,377	11,017	11,004	10,027	11,215			
		cpu usage as % installed****	n/a	1819%	1792%	55%	66%	58%	61%	68%	60%	57%	60%	65%			

Notes - cpu tables
 * MoU monthly average - commitment in MoU for KSI2K-days of cpu time per month (includes efficiency factor)
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU commitment in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

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Centre Summary of CERN + Tier-1s

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MoU pledges for 2006	
CPU (KSI2K-years)	12,404
Disk (Tbytes)	4,381
Tape (Tbytes)	5,545

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Disk Space - TBytes	ALICE	allocated	54	54	95	99	141	143		369	356	320	336	344		
		used	21	21	40	59	60	63	113	164	260	206	245	273		
	ATLAS	allocated	252	252	298	313	385	562	496	565	747	812	801	987		
		used	60	65	66	139	188	356	313	303	376	401	442	557		
	CMS	allocated	165	159	205	352	318	436	643	1,024	1,145	1,214	1,175	1,143		
		used	101	104	114	253	192	323	345	418	566	773	756	727		
	LHCb	allocated	43	41	102	106	170	194	206	249	192	255	252	326		
		used	22	22	35	41	80	75	85	101	106	351	109	167		
	TOTAL	allocated	514	506	700	870	1,014	1,335	1,345	2,207	2,440	2,601	2,564	2,800	4,381	64%
		used	204	212	255	492	520	817	856	986	1,308	1,731	1,552	1,724	3,067	56%
		installed capacity**	40	40	40	2,135	2,119	2,155	2,188	2,263	2,530	3,172	2,673	3,266		
		disk usage as % installed***	729%	757%	911%	33%	35%	54%	56%	62%	74%	78%	83%	75%		

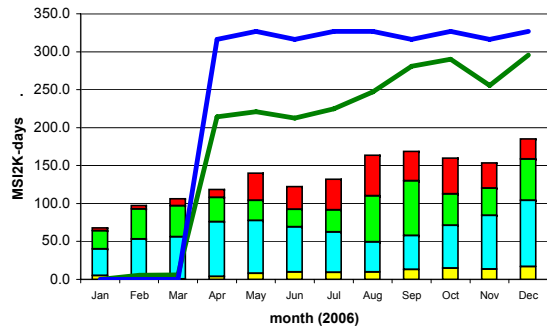
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Tape Space Used - TBytes	ALICE	287	288	288	293	313	342	283	343	420	608	762	876			
	ATLAS	637	645	685	795	863	999	1,201	1,236	1,328	1,432	1,401	1,373			
	CMS	434	451	685	879	972	923	964	1,014	1,101	1,425	1,610	1,735			
	LHCb	307	311	324	381	455	487	504	629	650	683	705	733			
	TOTAL	1,665	1,695	1,982	2,348	2,603	2,751	2,952	3,222	3,499	4,148	4,478	4,717	5,545	85%	
		installed capacity**	70	70	70	5,170	5,214	5,227	5,402	5,473	5,698	5,796	6,022	5,959		
		tape usage as % installed***	2379%	2421%	2831%	45%	50%	53%	55%	59%	61%	72%	74%	79%		

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

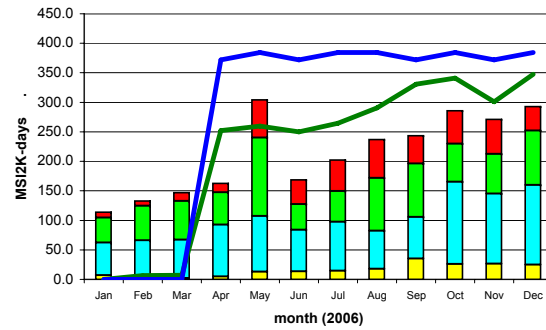
Comments:

Summary of CERN + Tier-1s

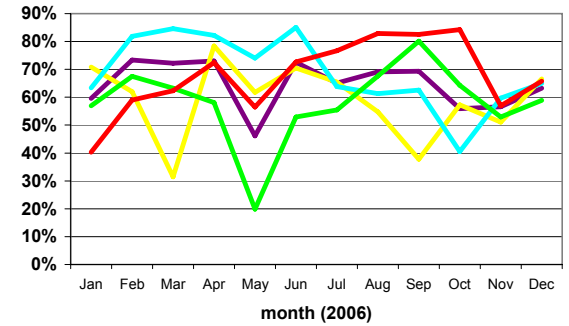
CPU Time Delivered



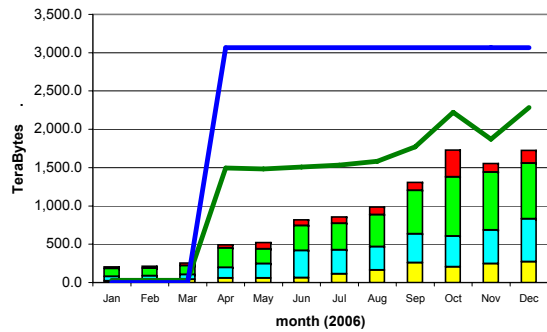
Wall-clock Time Delivered



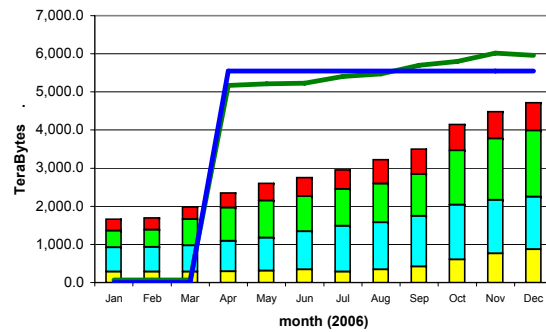
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — site average (cpu:wall_clock) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) —



Accounting Summary
CERN + Tier-1s

April - December 2006

Site Summary	cpu			disk occupancy			tape occupancy		
	KSI2K-days	% of installed	% of pledge	TBytes at end of period	% of installed	% of pledge	TBytes at end of period	% of installed	% of pledge
CERN Tier-0+CAF	355,080	80%	50%	660	94%	122%	2,081	83%	139%
ASGC	31,602	35%	16%	55	98%	20%	15	5%	3%
BNL	121,347	68%	52%	73	35%	20%	370	62%	123%
CC-IN2P3	79,928	44%	33%	95	75%	26%	377	70%	70%
CNAF	104,818	34%	28%	109	35%	18%	212	42%	25%
FNAL	125,661	49%	83%	200	57%	286%	475	95%	190%
FZK-GridKA	88,763	55%	42%	124	62%	63%	534	136%	136%
NDGF	37,283	44%	35%	72	99%	61%	0	0%	0%
NL LHC/Tier-1	55,138	82%	87%	14	36%	12%	24	100%	17%
PIC	28,411	82%	55%	44	94%	45%	129	95%	82%
RAL	124,683	99%	61%	96	98%	31%	261	79%	39%
TRIUMF	5,918	52%	19%	10	119%	119%	0	0%	0%
Total	1,158,632	60%	45%	1,552	83%	51%	4,478	74%	81%

Notes:
The utilisation of the different resources is compared with the installed capacity and with the MoU pledges, in all cases after applying the standard "efficiency factors".
cpu - the comparisons are made with the integral of the installed/pledged capacity across the months of the measurement period.
disk and tape - the comparisons are made with the installed/pledged capacity at the end of the measurement period.

VO Summary	cpu		disk occupancy		tape occupancy	
	KSI2K-days	% of total	TBytes at end of period	% of total	TBytes at end of period	% of total
ALICE	82,410	7%	245	16%	762	17%
ATLAS	465,927	40%	442	28%	1,401	31%
CMS	320,310	28%	756	49%	1,610	36%
LHCb	289,985	25%	109	7%	705	16%
Total	1,158,632	100%	1,552	100%	4,478	100%



Accounting Summary
CERN + Tier-1s

April - December 2006

ALICE	<i>cpu</i>		<i>disk occupancy</i>		<i>tape occupancy</i>	
	<i>KSI2K-days</i>	<i>% of total</i>	<i>TBytes at end of period</i>	<i>% of total</i>	<i>TBytes at end of period</i>	<i>% of total</i>
CERN Tier-0+CAF	32,592	40%	183	75%	471	62%
ASGC						
BNL						
CC-IN2P3	12,794	16%	17	7%	34	4%
CNAF	16,810	20%	21	9%	24	3%
FNAL						
FZK-GridKA	9,287	11%	23	9%	187	25%
NDGF	674	1%	1	0%		
NL LHC/Tier-1	7,362	9%				
PIC						
RAL	2,891	4%			46	6%
TRIUMF						
Total	82,410	100%	245	100%	762	100%

ATLAS	<i>cpu</i>		<i>disk occupancy</i>		<i>tape occupancy</i>	
	<i>KSI2K-days</i>	<i>% of total</i>	<i>TBytes at end of period</i>	<i>% of total</i>	<i>TBytes at end of period</i>	<i>% of total</i>
CERN Tier-0+CAF	120,106	26%	163	37%	478	34%
ASGC	17,126	4%	47	11%	13	1%
BNL	121,347	26%	73	17%	370	26%
CC-IN2P3	34,729	7%	23	5%	133	9%
CNAF	30,374	7%	9	2%	95	7%
FNAL	4,619	1%				
FZK-GridKA	28,351	6%	16	4%	181	13%
NDGF	36,609	8%	71	16%		
NL LHC/Tier-1	21,990	5%	12	3%	18	1%
PIC	10,711	2%	4	1%	51	4%
RAL	34,047	7%	14	3%	62	4%
TRIUMF	5,918	1%	10	2%		
Total	465,927	100%	442	100%	1,401	100%

CMS	<i>cpu</i>		<i>disk occupancy</i>		<i>tape occupancy</i>	
	<i>KSI2K-days</i>	<i>% of total</i>	<i>TBytes at end of period</i>	<i>% of total</i>	<i>TBytes at end of period</i>	<i>% of total</i>
CERN Tier-0+CAF	100,927	32%	254	34%	650	40%
ASGC	14,476	5%	8	1%	2	0%
BNL						
CC-IN2P3	5,885	2%	38	5%	143	9%
CNAF	12,302	4%	71	9%	39	2%
FNAL	121,042	38%	200	26%	475	30%
FZK-GridKA	27,836	9%	79	10%	138	9%
NDGF						
NL LHC/Tier-1	894	0%				
PIC	7,865	2%	40	5%	41	3%
RAL	29,083	9%	66	9%	122	8%
TRIUMF						
Total	320,310	100%	756	100%	1,610	100%

LHCb	<i>cpu</i>		<i>disk occupancy</i>		<i>tape occupancy</i>	
	<i>KSI2K-days</i>	<i>% of total</i>	<i>TBytes at end of period</i>	<i>% of total</i>	<i>TBytes at end of period</i>	<i>% of total</i>
CERN Tier-0+CAF	101,455	35%	60	55%	482	68%
ASGC						
BNL						
CC-IN2P3	26,520	9%	17	16%	67	10%
CNAF	45,332	16%	8	7%	54	8%
FNAL						
FZK-GridKA	23,289	8%	6	6%	28	4%
NDGF						
NL LHC/Tier-1	24,892	9%	2	2%	6	1%
PIC	9,835	3%			37	5%
RAL	58,662	20%	16	15%	31	4%
TRIUMF						
Total	289,985	100%	109	100%	705	100%



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MoU pledges for 2006	
CPU (KSI2K-years)	9,004
Disk (Tbytes)	3,611
Tape (Tbytes)	4,045

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU * monthly average	aggregate 2006 to date***			
														total	% MoU			
CPU Grid	ALICE	cpu	1,443	874		782	2,321	5,981	5,335	6,271	8,015	9,384	8,260	9,033		57,699		
		wall	1,692	1,024		912	4,293	8,184	8,224	10,383	23,207	15,821	14,122	11,796		99,666		
	ATLAS	cpu	12,600	23,088	28,462	35,710	30,671	34,034	27,740	17,972	19,423	35,461	45,121	64,427		374,709		
		wall	18,296	26,474	31,033	39,615	38,549	38,650	33,108	27,872	28,771	58,634	76,275	91,610		508,887		
	CMS	cpu	6,410	9,092	8,887	10,197	9,238	12,240	14,962	35,826	50,668	14,665	24,504	26,359		223,048		
		wall	12,131	16,979	16,165	17,304	69,238	15,046	19,938	48,417	60,103	19,480	39,184	41,637		375,622		
	LHCb	cpu	811	1,277	3,690	4,893	18,415	17,552	18,080	30,691	20,405	27,257	25,484	12,923		181,478		
		wall	2,033	1,879	4,007	5,288	24,313	22,613	22,037	35,572	23,359	30,646	45,767	21,285		238,799		
		TOTAL	cpu	21,264	34,331	41,039	51,582	60,645	69,807	66,117	90,760	98,511	86,767	103,369	112,742	229,602	836,934	30%
		wall	34,152	46,356	51,213	63,119	136,393	84,493	83,307	122,244	135,440	124,581	175,348	166,328	n/a	1,222,974	n/a	
CPU Non-Grid	ALICE	cpu	1,298	1,981	202	716	85	815	3	413	506	403	528	109		7,059		
		wall	2,119	3,449	475	1,048	98	938	2	453	622	522	615	131		10,472		
	ATLAS	cpu	10,870	15,936	13,905	15,380	16,811	12,238	9,253	12,063	11,579	5,011	17,354	13,840		154,240		
		wall	13,743	18,617	15,174	17,108	18,501	12,283	9,765	20,666	15,486	17,408	27,902	22,778		209,431		
	CMS	cpu	3,514	10,615	13,262	10,187	9,977	4,954	5,542	4,060	2,535	6,773	3,055	11,822		86,296		
		wall	5,617	13,260	16,740	13,164	33,736	6,221	6,801	5,123	2,988	9,052	4,082	16,137		132,921		
	LHCb	cpu	1,455	2,350	2,437	1,854	1,984	2,535	4,343	2,924	3,335	5,012	3,766	2,882		34,877		
		wall	1,824	2,758	2,817	2,332	2,885	3,179	5,074	3,781	4,178	5,940	4,245	3,481		42,494		
		TOTAL	cpu	17,137	30,882	29,806	28,137	28,857	20,542	19,141	19,460	17,955	17,199	24,703	28,653	229,602	282,472	10%
		wall	23,303	38,084	35,206	33,652	55,220	22,621	21,642	30,023	23,274	32,922	36,844	42,527	n/a	395,318	n/a	
CPU Total	ALICE	cpu	2,741	2,855	202	1,498	2,406	6,796	5,338	6,684	8,521	9,787	8,788	9,142		64,758		
		wall	3,811	4,473	483	1,960	4,391	9,122	8,226	10,836	23,829	16,343	14,737	11,927		110,138		
	ATLAS	cpu	23,470	39,024	42,367	51,090	47,482	46,272	36,993	30,035	31,002	40,472	62,475	78,267		528,949		
		wall	32,039	45,091	46,207	56,723	57,050	50,933	42,873	48,538	44,257	76,042	104,177	114,388		718,318		
	CMS	cpu	9,924	19,707	22,149	20,384	19,215	17,194	20,504	39,886	53,203	21,438	27,559	38,181		309,344		
		wall	17,748	30,239	32,905	30,468	102,974	21,267	26,739	53,540	63,091	28,532	43,266	57,774		508,543		
	LHCb	cpu	2,266	3,627	6,127	6,747	20,399	20,087	22,423	33,615	23,740	32,269	29,250	15,805		216,355		
		wall	3,857	4,637	6,824	7,620	27,198	25,792	27,111	39,353	27,537	36,586	50,012	24,766		281,293		
		TOTAL	cpu	38,401	65,213	70,845	79,719	89,502	90,349	85,258	110,220	116,466	103,966	128,072	141,395	229,602	1,119,406	41%
		wall	57,455	84,440	86,419	96,771	191,613	107,114	104,949	152,267	158,714	157,503	212,192	208,855	n/a	1,618,292	n/a	
installed capacity**			225	225	6,125	6,105	6,056	6,249	7,097	8,737	8,681	8,862	9,315					
cpu usage as % installed****		n/a	1218%	1195%	51%	57%	59%	54%	61%	52%	47%	57%	60%					

Notes - cpu tables
 * MoU monthly average - commitment in MoU for KSI2K-days of cpu time per month (includes efficiency factor)
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU commitment in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre Summary of Tier-1s

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	9,004
Disk (Tbytes)	3,611
Tape (Tbytes)	4,045

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%	
Disk Space - TBytes	ALICE	allocated	54	54	54	56	56	58	67	69	71	75	73	70			
		used	21	21	21	36	37	28	32	41	40	48	62	58			
	ATLAS	allocated	252	252	254	260	261	288	303	322	491	556	559	718			
		used	60	65	65	125	136	167	168	186	194	229	279	360			
	CMS	allocated	165	159	161	292	185	298	320	628	694	832	819	761			
		used	101	104	107	223	123	238	223	259	324	469	502	491			
	LHCb	allocated	43	41	46	46	49	68	83	94	75	158	152	158			
		used	22	22	25	30	33	20	21	30	31	47	49	67			
	TOTAL	allocated	514	506	515	654	551	712	773	1,113	1,331	1,621	1,603	1,707	3,611	47%	
		used	204	212	218	414	329	453	444	516	589	793	892	976	2,528	39%	
		installed capacity**	40	40	40	1,135	1,119	1,155	1,188	1,263	1,530	2,172	1,673	2,266			
		disk usage as % installed***	729%	757%	779%	52%	42%	56%	53%	58%	55%	52%	76%	62%			

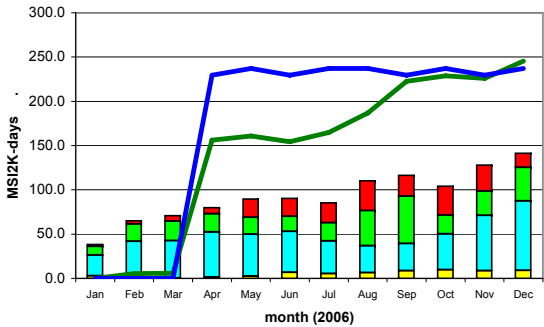
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Tape Space Used - TBytes	ALICE		38	38	38	42	46	46	49	89	103	210	291	345		
	ATLAS		321	339	362	442	480	602	740	779	859	972	923	872		
	CMS		99	106	330	512	601	546	545	599	657	820	960	1,048		
	LHCb		100	102	111	145	147	150	146	169	175	204	223	244		
	TOTAL		558	585	841	1,141	1,274	1,344	1,480	1,636	1,794	2,206	2,397	2,509	4,045	62%
		installed capacity**	70	70	70	2,670	2,714	2,727	2,902	2,973	3,198	3,296	3,522	3,459		
		tape usage as % installed***	797%	836%	1201%	43%	47%	49%	51%	55%	56%	67%	68%	73%		

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

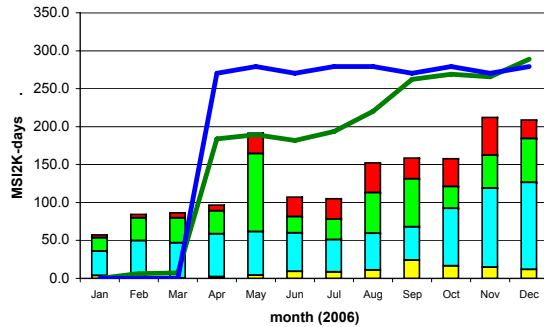
Comments:

Summary of Tier-1s

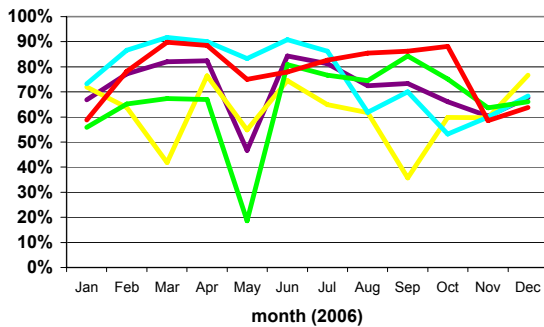
CPU Time Delivered



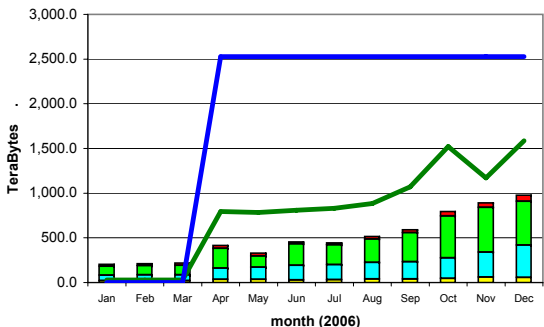
Wall-clock Time Delivered



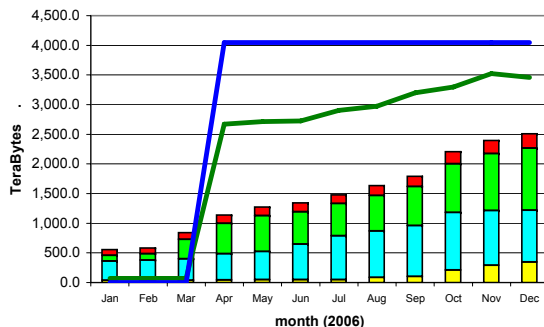
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — site average (cpu:wall_clock) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) —



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre CERN Tier-0+CAF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	3,400
Disk (Tbytes)	770
Tape (Tbytes)	1,500

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

			Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU * monthly average	aggregate 2006 to date***		
																total	% MoU	
CPU Grid	ALICE	cpu	272	1		548	1,429	2,104	3,945	1,991	3,784	4,569	4,642	7,489			30,774	
		wall	379	26		650	1,971	3,188	5,178	4,434	8,564	7,446	7,072	12,222			51,130	
	ATLAS	cpu	2,002	1,309	4,983	12,264	10,806	5,448	10,133	3,125	8,363	7,807	5,754	6,831			78,825	
		wall	2,991	1,955	6,250	13,412	12,673	7,806	12,987	3,605	11,306	15,932	9,252	11,787			109,956	
	CMS	cpu	6,630	4,677	5,472	6,857	1,079	1,711	1,811	11,187	12,284	3,444	3,038	2,818			61,008	
		wall	10,770	7,582	8,296	14,040	15,549	12,184	9,232	18,046	15,062	9,939	12,887	9,593			143,180	
	LHCb	cpu	323	538	1,790	2,367	13,975	9,403	17,480	19,507	14,252	11,593	2,713	10,503			104,444	
		wall	2,023	1,432	3,428	3,113	22,670	13,733	23,813	23,967	16,735	13,768	4,513	14,165			143,360	
	TOTAL	cpu	9,227	6,525	12,245	22,036	27,289	18,666	33,369	35,810	38,683	27,413	16,147	27,641	86,700		275,051	26%
		wall	16,163	10,995	17,974	31,215	52,863	36,911	51,210	50,052	51,667	47,085	33,724	47,767	n/a		447,626	n/a
CPU Non-Grid	ALICE	cpu	2,014	408	413	1,954	4,037	675	197	1,013	950	527	227	41			12,456	
		wall	2,908	769	1,474	2,494	6,385	1,281	1,073	2,404	2,665	2,216	4,924	903			29,496	
	ATLAS	cpu	9,478	9,648	8,092	8,590	11,555	8,067	5,846	6,699	4,962	8,141	2,546	2,570			86,194	
		wall	20,124	14,043	13,085	17,443	24,627	11,589	27,091	12,852	15,282	47,437	5,072	8,765			217,410	
	CMS	cpu	7,555	15,031	13,520	4,705	6,104	4,206	6,688	9,358	6,947	16,530	4,978	13,058			108,680	
		wall	13,827	20,558	23,900	10,475	14,649	10,203	16,353	17,818	12,258	25,899	11,112	24,499			201,551	
	LHCb	cpu	1,071	603	1,147	1,602	1,682	501	517	465	821	3,159	1,418	539			13,525	
		wall	3,204	2,017	4,296	4,058	13,975	1,767	1,770	1,316	2,757	5,446	4,121	1,909			46,636	
	TOTAL	cpu	20,118	25,690	23,172	16,851	23,378	13,449	13,248	17,535	13,680	28,357	9,169	16,208	86,700		220,855	21%
		wall	40,063	37,387	42,755	34,470	59,636	24,840	46,287	34,390	32,962	80,998	25,229	36,076	n/a		495,093	n/a
CPU Total	ALICE	cpu	2,286	409	413	2,502	5,466	2,779	4,142	3,004	4,734	5,096	4,869	7,530			43,230	
		wall	3,287	795	1,474	3,144	8,356	4,469	6,251	6,838	11,229	9,662	11,996	13,125			80,626	
	ATLAS	cpu	11,480	10,957	13,075	20,854	22,361	13,515	15,979	9,824	13,325	15,948	8,300	9,401			165,019	
		wall	23,115	15,998	19,335	30,855	37,300	19,395	40,078	16,457	26,588	63,369	14,324	20,552			327,366	
	CMS	cpu	14,185	19,708	18,992	11,562	7,183	5,917	8,499	20,545	19,231	19,974	8,016	15,876			169,688	
		wall	24,597	28,140	32,196	24,515	30,198	22,387	25,585	35,864	27,320	35,838	23,999	34,092			344,731	
	LHCb	cpu	1,394	1,141	2,937	3,969	15,657	9,904	17,997	19,972	15,073	14,752	4,131	11,042			117,969	
		wall	5,227	3,449	7,724	7,171	36,645	15,500	25,583	25,283	19,492	19,214	8,634	16,074			189,996	
	TOTAL	cpu	29,345	32,215	35,417	38,887	50,667	32,115	46,617	53,345	52,363	55,770	25,316	43,849	86,700		495,906	48%
		wall	56,226	48,382	60,729	65,685	112,499	61,751	97,497	84,442	84,629	128,083	58,953	83,843	n/a		942,719	n/a
		installed capacity**			2,280	2,280	2,280	2,280	2,280	2,280	2,280	2,323	1,165	1,900				
		cpu usage as % installed****	n/a	n/a	n/a	67%	87%	55%	80%	92%	90%	94%	85%	91%				

Notes - cpu tables
 * MoU monthly average - commitment in MoU for KSI2K-days of cpu time per month (includes efficiency factor)
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU commitment in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre CERN Tier-0+CAF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	3,400
Disk (Tbytes)	770
Tape (Tbytes)	1,500

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Disk Space - TBytes	ALICE	allocated			41	43	85	85	242	300	285	245	263	274		
		used			19	23	23	35	81	123	220	158	183	215		
	ATLAS	allocated			44	53	124	274	193	243	256	256	242	269		
		used			1	14	52	189	145	117	182	172	163	197		
	CMS	allocated			44	60	133	138	323	396	451	382	356	382		
		used			7	30	69	85	122	159	242	304	254	236		
	LHCb	allocated			56	60	121	126	123	155	117	97	100	168		
		used			10	11	47	55	64	71	75	304	60	100		
	TOTAL	allocated	0	0	185	216	463	623	881	1,094	1,109	980	961	1,093	770	142%
		used	0	0	37	78	191	364	412	470	719	938	660	748	539	139%
	installed capacity**				1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000			
	disk usage as % installed***	n/a	n/a	n/a	11%	27%	52%	59%	67%	103%	134%	94%	107%			

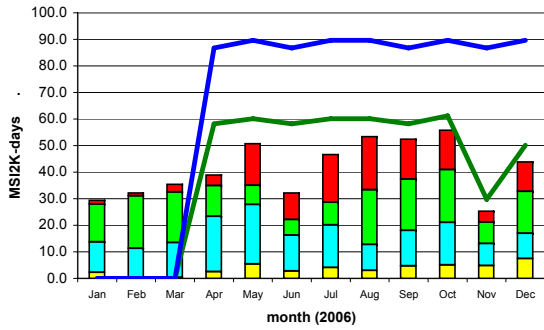
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Tape Space Used - TBytes	ALICE	249	250	250	251	267	296	234	254	317	398	471	531			
	ATLAS	316	306	323	353	383	397	461	457	469	460	478	501			
	CMS	335	345	355	367	371	377	419	415	444	605	650	687			
	LHCb	207	209	213	236	308	337	358	460	475	479	482	489			
	TOTAL	1,107	1,110	1,141	1,207	1,329	1,407	1,472	1,586	1,705	1,942	2,081	2,208	1,500	147%	
		installed capacity**				2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500		
		tape usage as % installed***	n/a	n/a	n/a	48%	53%	56%	59%	63%	68%	78%	83%	88%		

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

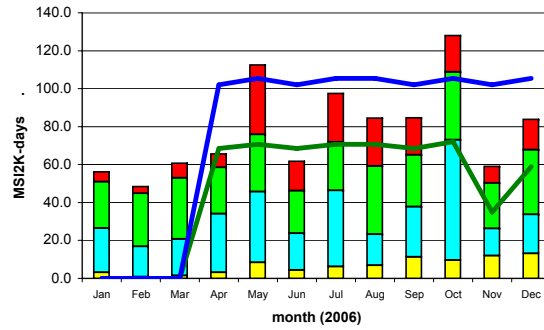
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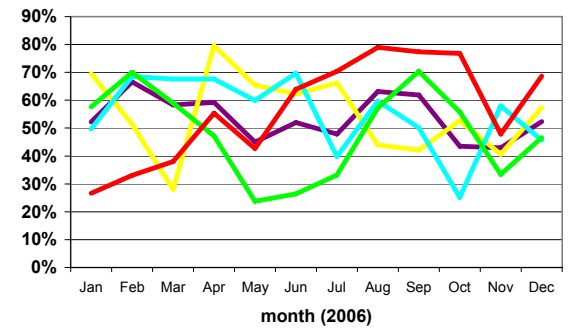
CPU Time Delivered



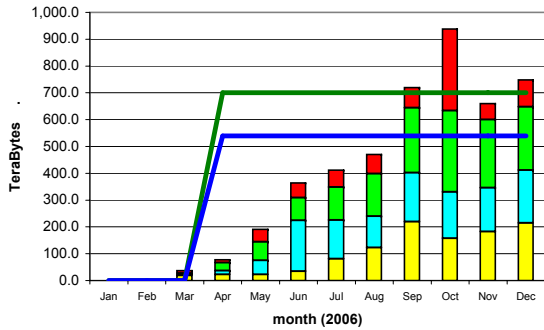
Wall-clock Time Delivered



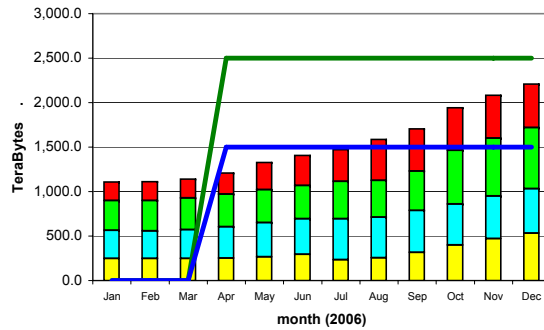
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ ATLAS ■

CMS ■ LHCb ■

installed capacity (inc. efficiency factor) —
MoU commitment (inc. efficiency factor) —

site average (cpu:wall_clock) —



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre ASGC

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	950
Disk (Tbytes)	400
Tape (Tbytes)	500

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Disk Space - TBytes	ALICE	allocated														
		used														
	ATLAS	allocated	20	20	20	20	20	24	24	34	36	60	60	60		
		used	11	11	11	11	11	15	15	20	20	44	47	49		
	CMS	allocated	20	20	20	20	20	24	24	24	30	20	20	20		
		used	4	4	4	4	5	6	6	10	10	15	8	14		
	LHCb	allocated														
		used														
	TOTAL	allocated	40	40	40	40	40	48	48	58	66	80	80	80	400	20%
		used	15	15	15	15	16	21	21	30	30	59	55	63	280	23%
	installed capacity**					40	40	48	48	66	80	80	80			
	disk usage as % installed***	n/a	n/a	n/a	54%	57%	63%	63%	89%	65%	105%	98%	113%			

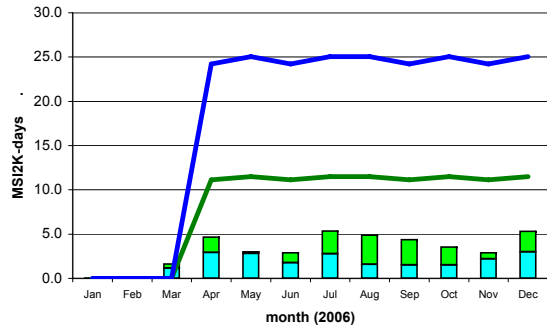
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Tape Space Used - TBytes	ALICE															
	ATLAS	11	11	11	11	11	11	11	11	13	13	13	13			
	CMS	2	2	2	2	2	2	2	2	2	2	2	2			
	LHCb															
	TOTAL	13	13	13	13	13	13	13	13	15	15	15	15	500	3%	
		installed capacity**					304	304	304	304	304	304	304	304		
		tape usage as % installed***	n/a	n/a	n/a	4%	4%	4%	4%	4%	5%	5%	5%	5%		

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

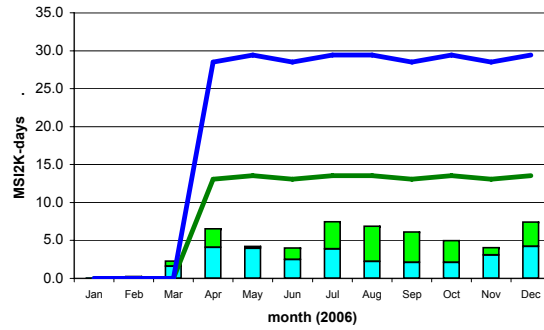
Comments:
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ASGC

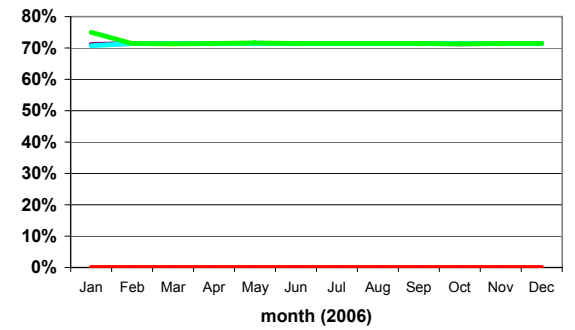
CPU Time Delivered



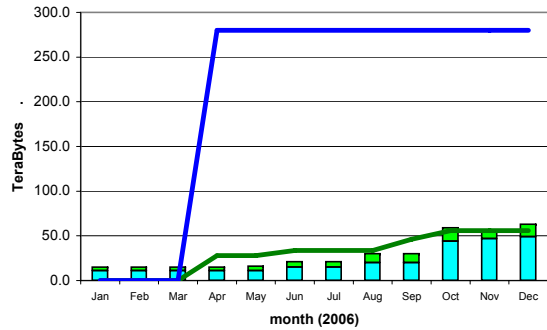
Wall-clock Time Delivered



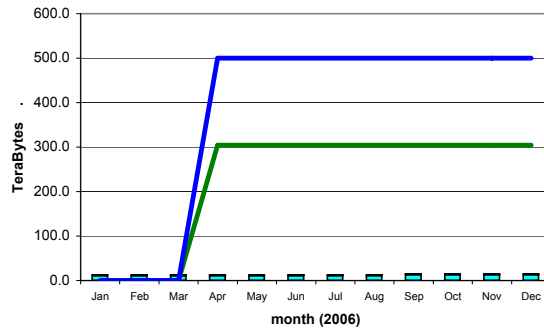
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■
ATLAS ■

CMS ■
LHCb ■

installed capacity (inc. efficiency factor) —
MoU commitment (inc. efficiency factor) —

site average (cpu:wall_clock) —



WLCG Accounting Summary

December 2006
Centre BNL

data source: site reports to LCG Project Office

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	1,120
Disk (Tbytes)	520
Tape (Tbytes)	300

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

CPU used - KSI2K-days		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU * monthly average	aggregate 2006 to date***		
															total	% MoU	
CPU Grid	ALICE	cpu														0	
		wall														0	
	ATLAS	cpu	6,115	6,464	5,529	3,185	5,396	7,336	7,849	6,213	3,655	8,924	5,235	8,803		74,704	
		wall	7,177	6,966	6,062	3,439	5,714	8,072	8,050	10,249	7,349	19,707	19,710	19,974		122,469	
	CMS	cpu														0	
		wall														0	
	LHCb	cpu														0	
		wall														0	
	TOTAL	cpu	6,115	6,464	5,529	3,185	5,396	7,336	7,849	6,213	3,655	8,924	5,235	8,803	28,560	74,704	22%
		wall	7,177	6,966	6,062	3,439	5,714	8,072	8,050	10,249	7,349	19,707	19,710	19,974	n/a	122,469	n/a
CPU Non-Grid	ALICE	cpu														0	
		wall														0	
	ATLAS	cpu	9,193	12,778	12,917	12,886	13,317	10,204	8,398	5,113	4,632	3,673	15,331	12,684		121,126	
		wall	11,158	14,568	13,933	14,319	13,887	9,476	8,613	11,692	5,723	8,997	19,723	16,318		148,407	
	CMS	cpu														0	
		wall														0	
	LHCb	cpu														0	
		wall														0	
	TOTAL	cpu	9,193	12,778	12,917	12,886	13,317	10,204	8,398	5,113	4,632	3,673	15,331	12,684	28,560	121,126	35%
		wall	11,158	14,568	13,933	14,319	13,887	9,476	8,613	11,692	5,723	8,997	19,723	16,318	n/a	148,407	n/a
CPU Total	ALICE	cpu														0	
		wall														0	
	ATLAS	cpu	15,308	19,242	18,446	16,071	18,713	17,540	16,247	11,326	8,287	12,597	20,566	21,487		195,830	
		wall	18,335	21,534	19,995	17,758	19,601	17,548	16,663	21,941	13,072	28,704	39,433	36,292		270,876	
	CMS	cpu														0	
		wall														0	
	LHCb	cpu														0	
		wall														0	
	TOTAL	cpu	15,308	19,242	18,446	16,071	18,713	17,540	16,247	11,326	8,287	12,597	20,566	21,487	28,560	195,830	57%
		wall	18,335	21,534	19,995	17,758	19,601	17,548	16,663	21,941	13,072	28,704	39,433	36,292	n/a	270,876	n/a
installed capacity**					700	700	700	700	700	1,120	1,120	1,120	1,120				
cpu usage as % installed****		n/a	n/a	n/a	90%	105%	98%	91%	63%	29%	44%	72%	75%				

Notes - cpu tables

- * MoU monthly average - commitment in MoU for KSI2K-days of cpu time per month (includes efficiency factor)
- ** installed capacity - capacity installed (KSI2K)
- *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
- % MoU - percentage of MoU commitment in calendar year to current date
- **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2006
Centre BNL

data source: site reports to LCG Project Office

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	1,120
Disk (Tbytes)	520
Tape (Tbytes)	300

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Disk Space - TBytes	ALICE	allocated														
		used														
	ATLAS	allocated	160	160	160	160	160	160	160	280	300	300	440			
		used	22	26	30	35	38	39	42	46	48	57	73	86		
	CMS	allocated														
		used														
	LHCb	allocated														
		used														
	TOTAL	allocated	160	160	160	160	160	160	160	280	300	300	440	520	85%	
		used	22	26	30	35	38	39	42	46	48	57	73	86	364	24%
	installed capacity**				180	180	180	180	180	300	300	440				
	disk usage as % installed***	n/a	n/a	n/a	28%	30%	31%	33%	37%	23%	27%	35%	28%			

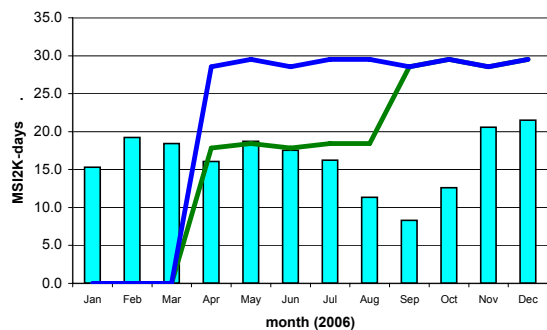
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Tape Space Used - TBytes	ALICE															
	ATLAS	166	185	205	222	242	264	298	328	357	390	370	390			
	CMS															
	LHCb															
	TOTAL	166	185	205	222	242	264	298	328	357	390	370	390	300	130%	
		installed capacity**				300	300	300	420	420	420	420	600	600		
		tape usage as % installed***	n/a	n/a	n/a	74%	81%	88%	71%	78%	85%	93%	62%	65%		

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

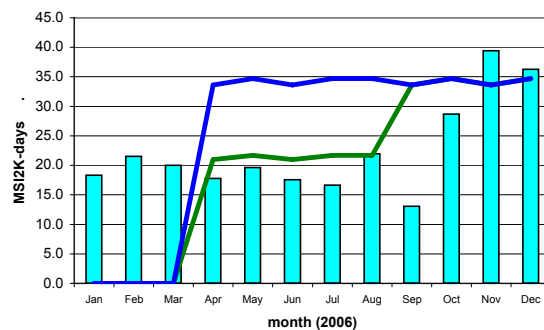
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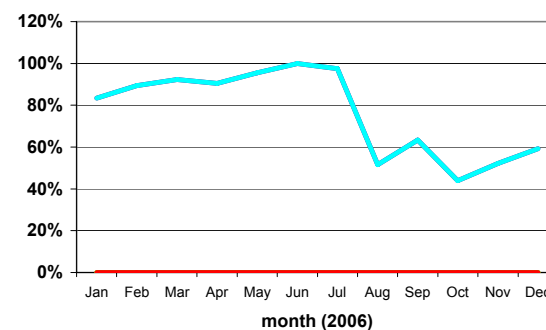
CPU Time Delivered



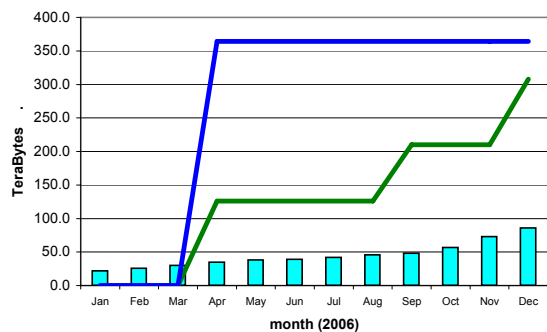
Wall-clock Time Delivered



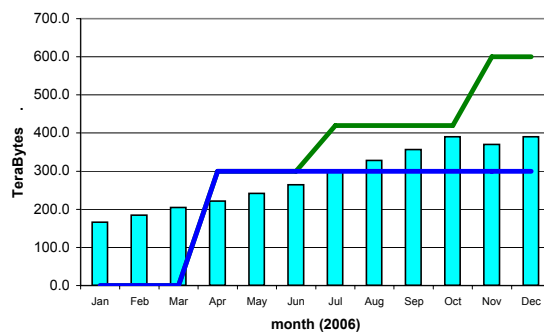
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE █
ATLAS █

CMS █
LHCb █

installed capacity (inc. efficiency factor) —
MoU commitment (inc. efficiency factor) —

site average (cpu:wall_clock) —



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre CC-IN2P3

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	1,170
Disk (Tbytes)	520
Tape (Tbytes)	535

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%	
Disk Space - TBytes	ALICE	allocated	16	16	16	16	16	16	18	18	18	18	18				
		used	15	15	15	15	16	15	16	16	17	17	17				
	ATLAS	allocated	10	10	10	14	18	14	18	15	20	28	28	39			
		used	9	9	9	10	18	8	11	14	15	17	23	38			
	CMS	allocated	23	17	18	22	27	28	36	40	35	70	67	68			
		used	11	11	12	15	27	23	15	18	16	20	38	43			
	LHCb	allocated	6	4	4	4	6	5	14	15	14	46	40	35			
		used	3	3	3	3	6	2	3	7	7	17	17	18			
	TOTAL	allocated	55	47	48	56	67	63	84	88	87	162	153	160	520	31%	
		used	38	38	39	43	67	48	44	55	54	71	95	116	364	32%	
	installed capacity**				55	70	70	84	88	88	180	180	180				
	disk usage as % installed***	n/a	n/a	n/a	112%	137%	98%	75%	89%	88%	56%	75%	92%				

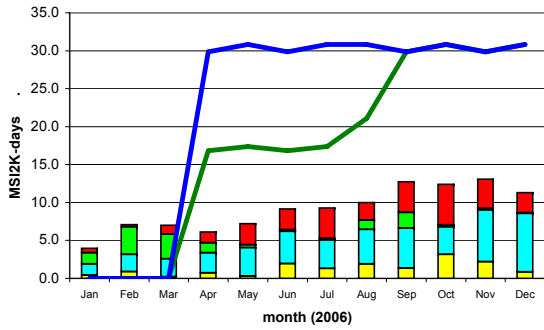
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Tape Space Used - TBytes	ALICE	25	25	25	26	30	31	31	34	34	34	34	45			
	ATLAS	82	82	82	84	90	128	159	126	153	163	133	150			
	CMS	54	56	58	62	67	68	69	76	79	141	143	126			
	LHCb	44	44	45	46	48	50	54	62	64	66	67	67			
	TOTAL	205	207	210	218	235	277	313	298	330	404	377	388	535	73%	
		installed capacity**				218	400	400	400	440	535	535	535	535		
	tape usage as % installed***	n/a	n/a	n/a	100%	59%	69%	78%	68%	62%	76%	70%	73%			

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

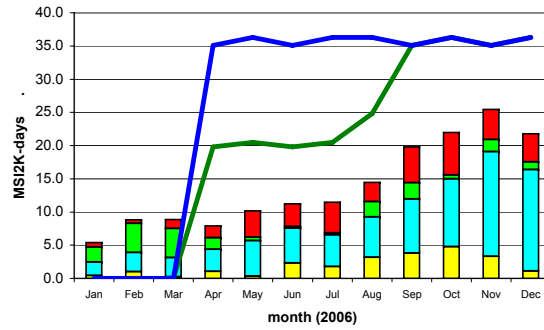
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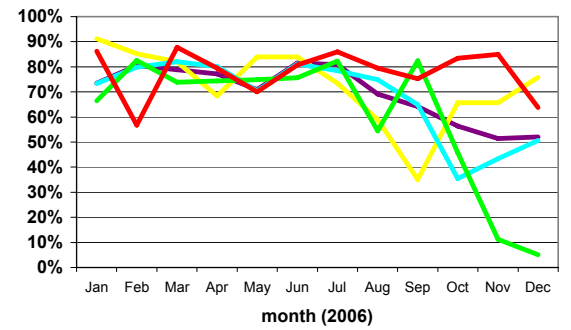
CPU Time Delivered



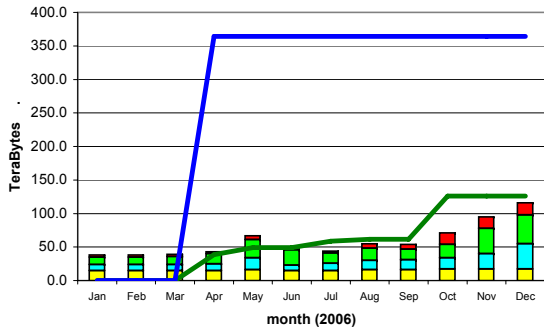
Wall-clock Time Delivered



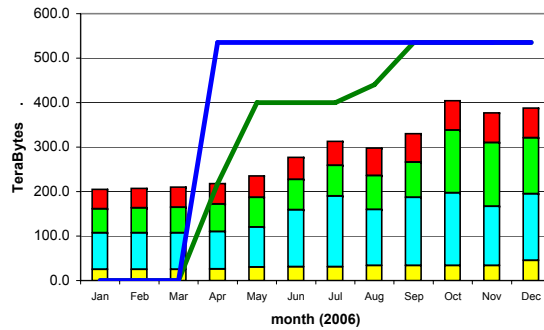
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — site average (cpu:wall_clock) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) —



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre CNAF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	1,800
Disk (Tbytes)	850
Tape (Tbytes)	850

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU * monthly average	aggregate 2006 to date***			
														total	% MoU			
CPU Grid	ALICE	cpu	1,104	592		678	1,882	2,198	2,189	2,219	2,510	2,977	2,157	3,734		22,240		
		wall	1,232	691		795	3,637	3,206	3,657	3,743	6,325	5,267	4,764	4,944		38,263		
	ATLAS	cpu	2,243	3,665	2,469	6,200	4,545	4,805	2,270	941	1,344	4,386	5,880	5,371		44,119		
		wall	4,821	4,955	3,000	6,924	5,346	5,655	3,509	1,574	1,851	6,404	9,296	6,944		60,279		
	CMS	cpu	1,321	2,241	621	1,421	94	252	350	4,507	5,622	42	14	1,497		17,982		
		wall	3,080	3,626	1,627	2,683	162	698	968	6,823	7,537	447	974	4,644		33,269		
	LHCb	cpu	107	233	453	1,083	6,804	6,090	2,903	8,337	3,242	9,275	6,361	1,384		46,272		
		wall	578	358	684	1,192	10,561	8,084	4,067	9,810	4,104	10,493	7,651	2,662		60,244		
		TOTAL	cpu	4,775	6,731	3,543	9,382	13,325	13,345	7,712	16,004	12,718	16,680	14,412	11,986	45,900	130,613	24%
			wall	9,711	9,630	5,313	11,594	19,706	17,643	12,201	21,950	19,817	22,611	22,685	19,194	n/a	192,055	n/a
CPU Non-Grid	ALICE	cpu			1											1		
		wall			230											230		
	ATLAS	cpu				3										3		
		wall				3										3		
	CMS	cpu	34	8												42		
		wall	42	8												50		
	LHCb	cpu	196	2,104	971	594	160	239	56	1	35	152				4,508		
		wall	397	2,337	1,152	760	194	318	78	6	57	216	28	4		5,547		
		TOTAL	cpu	230	2,112	972	597	160	239	56	1	35	152	0	0	45,900	4,554	1%
			wall	439	2,345	1,382	763	194	318	78	6	57	216	28	4	n/a	5,830	n/a
CPU Total	ALICE	cpu	1,104	592	1	678	1,882	2,198	2,189	2,219	2,510	2,977	2,157	3,734		22,241		
		wall	1,232	691	232	795	3,637	3,206	3,657	3,743	6,325	5,267	4,764	4,944		38,493		
	ATLAS	cpu	2,243	3,665	2,469	6,203	4,545	4,805	2,270	941	1,344	4,386	5,880	5,371		44,122		
		wall	4,821	4,955	3,000	6,927	5,346	5,655	3,509	1,574	1,851	6,404	9,296	6,944		60,282		
	CMS	cpu	1,355	2,249	621	1,421	94	252	350	4,507	5,622	42	14	1,497		18,024		
		wall	3,122	3,634	1,627	2,683	162	698	968	6,823	7,537	447	974	4,644		33,319		
	LHCb	cpu	303	2,337	1,424	1,677	6,964	6,329	2,959	8,338	3,277	9,427	6,361	1,384		50,780		
		wall	975	2,695	1,836	1,952	10,755	8,402	4,145	9,816	4,161	10,709	7,679	2,666		65,791		
		TOTAL	cpu	5,005	8,843	4,515	9,979	13,485	13,584	7,768	16,005	12,753	16,832	14,412	11,986	45,900	135,167	25%
			wall	10,150	11,975	6,695	12,357	19,900	17,961	12,279	21,956	19,874	22,827	22,713	19,198	n/a	197,885	n/a
	installed capacity**				1,600	1,580	1,580	1,580	1,500	1,450	1,363	1,304	1,304					
	cpu usage as % installed****	n/a	n/a	n/a	24%	33%	34%	19%	42%	34%	48%	43%	36%					

Notes - cpu tables
 * MoU monthly average - commitment in MoU for KSI2K-days of cpu time per month (includes efficiency factor)
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU commitment in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre CNAF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	1,800
Disk (Tbytes)	850
Tape (Tbytes)	850

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Disk Space - TBytes	ALICE	allocated	9	9	9	13	13	13	13	16	16	21	21	21		
		used	6	6	6	7	7	7	8	13	15	21	21	19		
	ATLAS	allocated	19	19	19	19	19	19	27	34	40	40	44	44		
		used	8	9	2	5	6	15	16	13	18	8	9	24		
	CMS	allocated	63	63	64	72	72	78	80	86	86	86	86	64		
		used	59	60	62	63	55	62	65	71	75	70	71	60		
	LHCb	allocated	21	21	21	21	21	21	21	26	6	28	28	20		
		used	17	17	16	16	16	5	5	5	6	8	8	8		
	TOTAL	allocated	112	112	113	125	125	139	148	168	148	179	179	149	850	18%
		used	90	92	86	91	84	89	94	102	114	107	109	111	595	19%
	installed capacity**				470	450	450	450	450	450	450	450	400			
	disk usage as % installed***	n/a	n/a	n/a	28%	27%	28%	30%	32%	36%	34%	35%	40%			

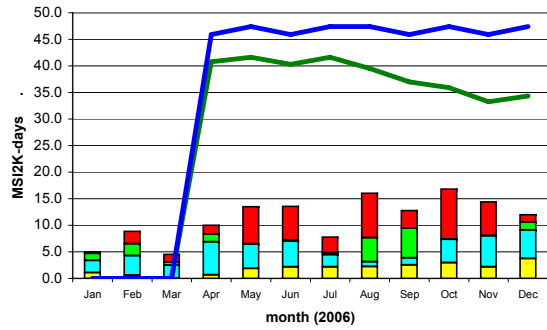
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Tape Space Used - TBytes	ALICE	13	13	13	14	14	14	15	23	24	24	24	30			
	ATLAS	51	50	52	53	55	91	94	94	95	95	95	103			
	CMS	22	22	24	28	28	36	36	37	38	39	39	88			
	LHCb	46	47	54	54	52	52	53	53	54	54	54	68			
	TOTAL	132	132	143	149	149	193	198	207	211	212	212	289	850	34%	
		installed capacity**				560	500	500	500	500	500	500	500	500		
		tape usage as % installed***	n/a	n/a	n/a	27%	30%	39%	40%	41%	42%	42%	42%	58%		

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

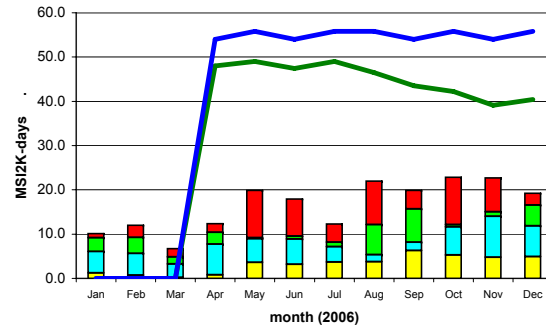
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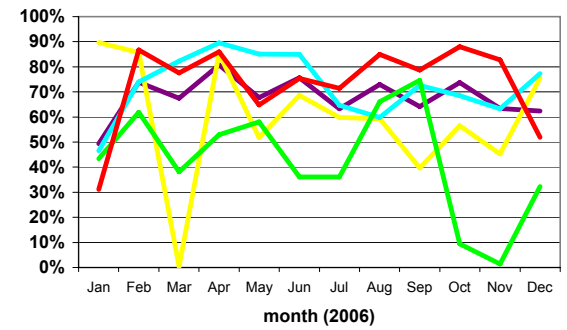
CPU Time Delivered



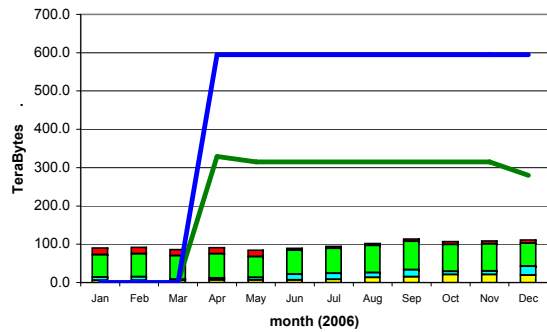
Wall-clock Time Delivered



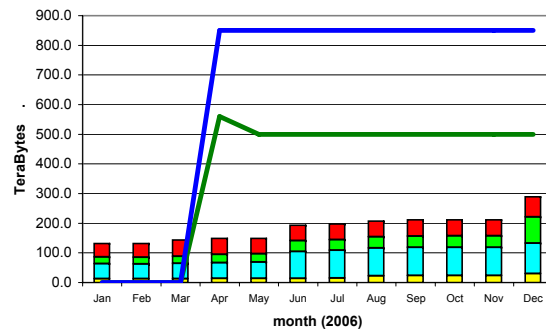
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ ATLAS ■

CMS ■ LHCb ■

installed capacity (inc. efficiency factor) —
MoU commitment (inc. efficiency factor) —

site average (cpu:wall_clock) —



WLCG Accounting Summary

December 2006
Centre FNAL

data source: site reports to LCG Project Office

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	728
Disk (Tbytes)	100
Tape (Tbytes)	250

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

CPU used - KSI2K-days			Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU * monthly average	aggregate 2006 to date***			
																total	% MoU		
CPU Grid	ALICE	cpu															0		
		wall																0	
	ATLAS	cpu	35	370	4,396	3,899	720											9,420	
		wall	64	407	4,835	4,289	4,142											13,737	
	CMS	cpu	232	3,240	4,580	3,994	5,261	6,701	6,701	13,313	20,694	5,412	19,449	15,228				104,805	
		wall	464	6,479	9,160	7,987	64,400	8,060	8,060	16,013	23,798	6,790	27,563	17,088				195,862	
	LHCb	cpu																0	
		wall																0	
	TOTAL	cpu	267	3,610	8,976	7,893	5,981	6,701	6,701	13,313	20,694	5,412	19,449	15,228		18,564		114,225	51%
		wall	528	6,886	13,995	12,276	68,542	8,060	8,060	16,013	23,798	6,790	27,563	17,088		n/a		209,599	n/a
CPU Non-Grid	ALICE	cpu															0		
		wall															0		
	ATLAS	cpu																0	
		wall																0	
	CMS	cpu	1,460	5,390	9,457	8,616	9,915	4,852	4,852	3,231	1,897	4,101	2,053	11,818				67,642	
		wall	1,825	6,738	11,822	10,771	33,620	6,065	6,065	4,038	2,181	4,715	2,792	16,072				106,704	
	LHCb	cpu																0	
		wall																0	
	TOTAL	cpu	1,460	5,390	9,457	8,616	9,915	4,852	4,852	3,231	1,897	4,101	2,053	11,818		18,564		67,642	30%
		wall	1,825	6,738	11,822	10,771	33,620	6,065	6,065	4,038	2,181	4,715	2,792	16,072		n/a		106,704	n/a
CPU Total	ALICE	cpu															0		
		wall															0		
	ATLAS	cpu	35	370	4,396	3,899	720											9,420	
		wall	64	407	4,835	4,289	4,142											13,737	
	CMS	cpu	1,692	8,630	14,037	12,610	15,176	11,553	11,553	16,544	22,591	9,513	21,502	27,046				172,447	
		wall	2,289	13,217	20,982	18,758	98,020	14,125	14,125	20,051	25,979	11,505	30,355	33,160				302,566	
	LHCb	cpu																0	
		wall																0	
	TOTAL	cpu	1,727	9,000	18,433	16,509	15,896	11,553	11,553	16,544	22,591	9,513	21,502	27,046		18,564		181,867	82%
		wall	2,353	13,624	25,817	23,047	102,162	14,125	14,125	20,051	25,979	11,505	30,355	33,160		n/a		316,303	n/a
		installed capacity**			900	900	900	900	900	1,800	1,800	1,800	1,800						
		cpu usage as % installed****	n/a	n/a	n/a	72%	69%	50%	50%	72%	49%	21%	47%	59%					

Notes - cpu tables

- * MoU monthly average - commitment in MoU for KSI2K-days of cpu time per month (includes efficiency factor)
- ** installed capacity - capacity installed (KSI2K)
- *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
- % MoU - percentage of MoU commitment in calendar year to current date
- **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2006
Centre FNAL

data source: site reports to LCG Project Office

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	728
Disk (Tbytes)	100
Tape (Tbytes)	250

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Disk Space - TBytes	ALICE	allocated														
		used														
	ATLAS	allocated														
		used														
	CMS	allocated				111		111	111	400	400	400	400	400		
		used				106		108	108	120	180	200	200	200		
	LHCb	allocated														
		used														
	TOTAL	allocated	0	0	0	111	0	111	111	400	400	400	400	400	100	400%
		used	0	0	0	106	0	108	108	120	180	200	200	200	70	286%
	installed capacity**				100	100	100	100	100	100	500	500	500			
	disk usage as % installed***	n/a	n/a	n/a	151%	0%	154%	154%	n/a	257%	57%	n/a	57%			

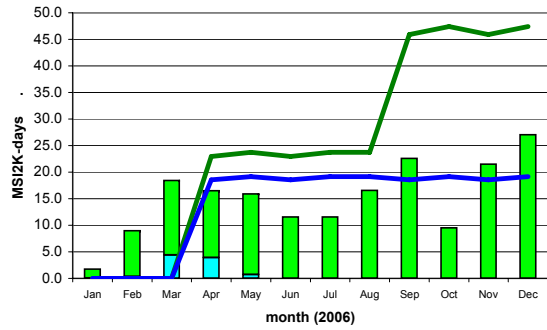
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Tape Space Used - TBytes	ALICE															
	ATLAS															
	CMS			220	280	363	300	300	300	360	450	475	475			
	LHCb															
	TOTAL	0	0	220	280	363	300	300	300	360	450	475	475	250	190%	
		installed capacity**				300	300	300	300	300	450	500	500	500		
		tape usage as % installed***	n/a	n/a	n/a	93%	121%	100%	100%	100%	80%	90%	95%	95%		

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

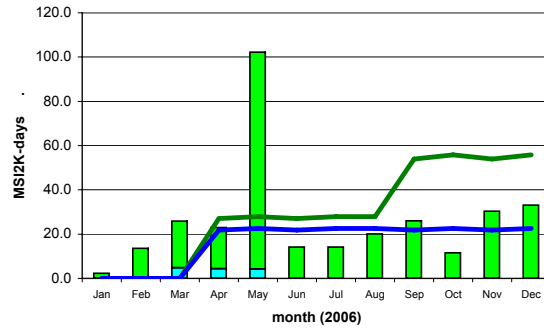
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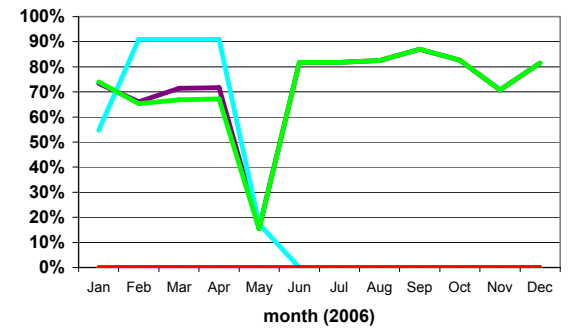
CPU Time Delivered



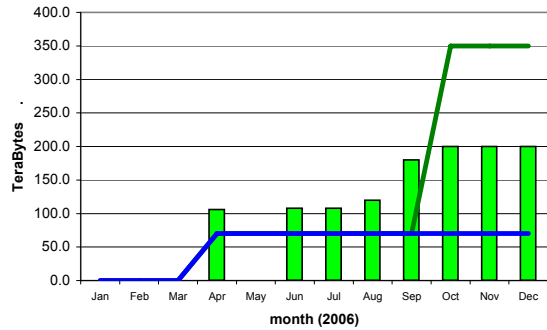
Wall-clock Time Delivered



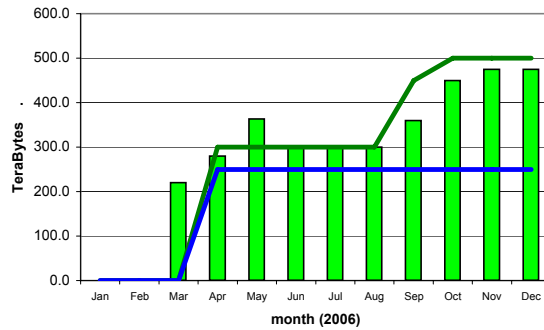
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■
ATLAS ■

CMS ■
LHCb ■

installed capacity (inc. efficiency factor) —
MoU commitment (inc. efficiency factor) —

site average (cpu:wall_clock) —



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre FZK-GridKA

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	1,030
Disk (Tbytes)	280
Tape (Tbytes)	393

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU * monthly average	aggregate 2006 to date***		
															total	% MoU	
CPU Grid	ALICE	cpu					1,124	723	549	2,823	1,309	2,759	2,206		11,493		
		wall								2,029	1,282	860	10,662		2,472	4,586	3,127
	ATLAS	cpu	264	2,327	4,946	6,320	871	287	477	553	2,286	1,141	1,851	4,768		26,091	
		wall	1,087	2,911	3,984	6,631	1,014	436	661	1,162	3,021	2,713	3,482	8,189		35,291	
	CMS	cpu	716	1,807	1,506	199	110	102	192	6,155	9,804	4,144	908	3,714		29,357	
		wall	2,601	4,583	2,216	1,098	403	179	1,319	10,275	11,476	5,652	2,435	10,091		52,328	
	LHCb	cpu	2	227	559	461	1,329	477	3,741	5,621	760	3,913	6,937	352		24,379	
		wall	81	289	317	497	1,646	2,737	4,798	7,115	1,391	4,927	23,836	2,169		49,803	
	TOTAL	cpu	982	4,361	7,011	6,980	2,310	1,990	5,133	12,878	15,673	10,507	12,455	11,040	26,265	91,320	29%
		wall	3,769	7,783	6,517	8,226	3,063	5,381	8,060	19,412	26,550	15,764	34,339	23,576	n/a	162,440	n/a
CPU Non-Grid	ALICE	cpu	883	1,112											1,995		
		wall	1,664	2,429											4,093		
	ATLAS	cpu	269	1,887		145	1,486	1,572	271	4,833	4,095	678	1,485	1,078	17,799		
		wall	797	2,299		155	1,619	2,057	309	6,309	5,327	3,761	3,146	1,891	27,670		
	CMS	cpu	1,088	1,848		572	27	87	558	823	618	2,537	1,000	3	9,161		
		wall	2,245	2,510		991	71	139	588	1,067	720	4,111	1,286	4	13,732		
	LHCb	cpu		29		43	7								79		
		wall	48	41		46	14								149		
	TOTAL	cpu	2,240	4,876	0	760	1,520	1,659	829	5,656	4,713	3,215	2,485	1,081	26,265	29,034	9%
		wall	4,754	7,279	0	1,192	1,704	2,196	897	7,376	6,047	7,872	4,432	1,895	n/a	45,644	n/a
CPU Total	ALICE	cpu	883	1,112				1,124	723	549	2,823	1,309	2,759	2,206	13,488		
		wall	1,664	2,429				2,029	1,282	860	10,662	2,472	4,586	3,127	29,111		
	ATLAS	cpu	533	4,214	4,946	6,465	2,357	1,859	748	5,386	6,381	1,819	3,336	5,846	43,890		
		wall	1,884	5,210	3,984	6,786	2,633	2,493	970	7,471	8,348	6,474	6,628	10,080	62,961		
	CMS	cpu	1,804	3,655	1,506	771	137	189	750	6,978	10,422	6,681	1,908	3,717	38,518		
		wall	4,846	7,093	2,216	2,089	474	318	1,907	11,342	12,196	9,763	3,721	10,095	66,060		
	LHCb	cpu	2	256	559	504	1,336	477	3,741	5,621	760	3,913	6,937	352	24,458		
		wall	129	330	317	543	1,660	2,737	4,798	7,115	1,391	4,927	23,836	2,169	49,952		
	TOTAL	cpu	3,222	9,237	7,011	7,740	3,830	3,649	5,962	18,534	20,386	13,722	14,940	12,121	26,265	120,354	38%
		wall	8,523	15,062	6,517	9,418	4,767	7,577	8,957	26,788	32,597	23,636	38,771	25,471	n/a	208,084	n/a
installed capacity**					533	533	533	533	1,027	1,027	1,027	1,027	1,027				
cpu usage as % installed****		n/a	n/a	n/a	57%	28%	27%	44%	71%	78%	52%	57%	46%				

Notes - cpu tables
 * MoU monthly average - commitment in MoU for KSI2K-days of cpu time per month (includes efficiency factor)
 ** installed capacity - capacity installed (KSI2K)
 *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
 - % MoU - percentage of MoU commitment in calendar year to current date
 **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre FZK-GridKA

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	1,030
Disk (Tbytes)	280
Tape (Tbytes)	393

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Disk Space - TBytes	ALICE	allocated	29	29	29	27	27	28	34	31	33	33	31	28		
		used				14	14	6	6	12	8	9	23	21		
	ATLAS	allocated	21	21	21	23	23	33	29	30	67	67	69	70		
		used				11	11	27	11	17	26	40	16	31		
	CMS	allocated	21	21	21	28	28	26	32	48	87	120	112	112		
		used				14	15	20	7	18	26	49	79	87		
	LHCb	allocated	12	12	12	12	12	15	18	23	25	25	25	26		
		used				4	4	2	2	8	7	8	6	7		
	TOTAL	allocated	83	83	83	90	90	102	113	132	212	245	237	236	280	84%
		used	0	0	0	43	44	55	26	55	67	106	124	146	196	74%
	installed capacity**				90	90	102	113	284	284	284	284	284			
	disk usage as % installed***	n/a	n/a	n/a	68%	70%	77%	33%	28%	34%	53%	62%	73%			

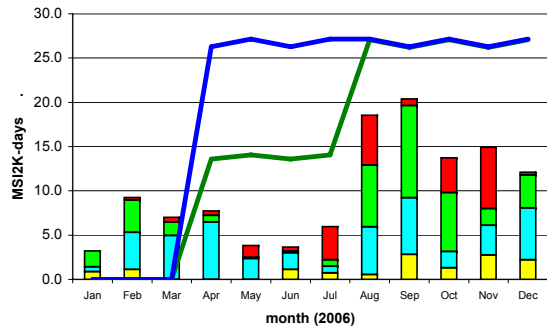
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Tape Space Used - TBytes	ALICE				2	2	1	3	30	37	122	187	222			
	ATLAS				13	13	26	68	101	115	170	181	81			
	CMS				78	78	81	75	113	99	103	138	136			
	LHCb				3	3	5	5	16	10	17	28	27			
	TOTAL		0	0	0	96	96	113	151	260	261	412	534	466	393	119%
		installed capacity**				393	393	393	393	393	393	393	393	393		
		tape usage as % installed***	n/a	n/a	n/a	24%	24%	29%	38%	66%	66%	105%	136%	119%		

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

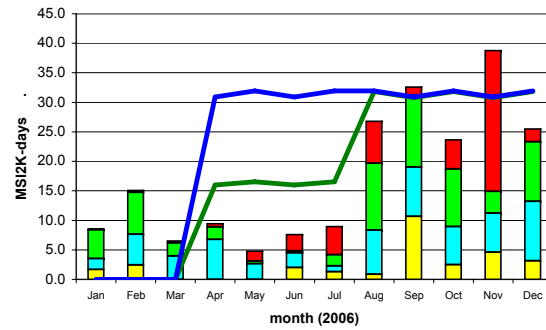
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FZK-GridKA

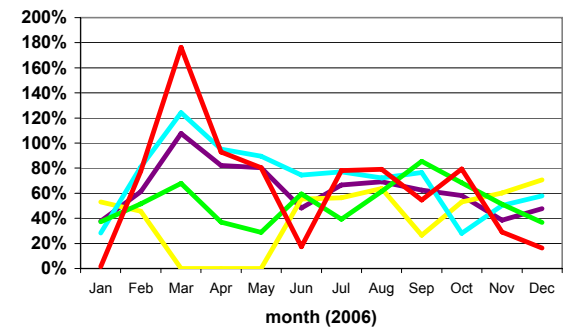
CPU Time Delivered



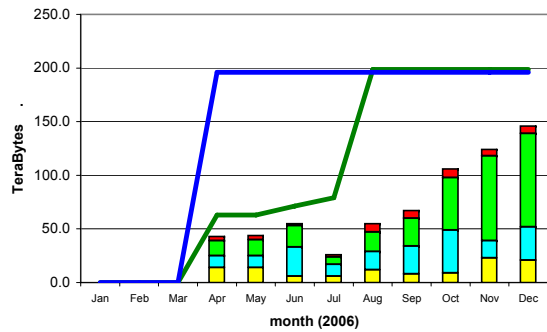
Wall-clock Time Delivered



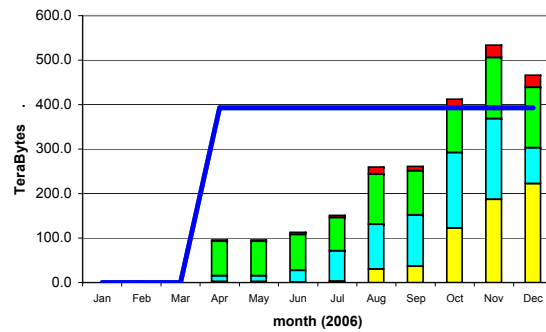
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE ■ CMS ■ installed capacity (inc. efficiency factor) — site average (cpu:wall_clock) —
 ATLAS ■ LHCb ■ MoU commitment (inc. efficiency factor) —



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre NDGF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	520
Disk (Tbytes)	170
Tape (Tbytes)	240

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

CPU used - KSI2K-days		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU * monthly average	aggregate 2006 to date***		
															total	% MoU	
CPU Grid	ALICE	cpu							1	297	282	94	195		869		
		wall							1	314	326	104	208		953		
	ATLAS	cpu			5,200	5,220	4,309	1,950	819	1,263	6,743	11,105	10,143		46,752		
		wall			5,500	5,550	4,615	2,145	901	1,389	6,859	11,138	11,059		49,156		
	CMS	cpu													0		
		wall													0		
	LHCb	cpu													0		
		wall													0		
	TOTAL	cpu	0	0	0	5,200	5,220	4,309	1,950	820	1,560	7,025	11,199	10,338	13,260	47,621	30%
		wall	0	0	0	5,500	5,550	4,615	2,145	902	1,703	7,185	11,242	11,267	n/a	50,109	n/a
CPU Non-Grid	ALICE	cpu													0		
		wall													0		
	ATLAS	cpu													0		
		wall													0		
	CMS	cpu													0		
		wall													0		
	LHCb	cpu													0		
	wall													0			
TOTAL	cpu	0	0	0	0	0	0	0	0	0	0	0	0	13,260	0	0%	
	wall	0	0	0	0	0	0	0	0	0	0	0	0	n/a	0	n/a	
CPU Total	ALICE	cpu							1	297	282	94	195		869		
		wall							1	314	326	104	208		953		
	ATLAS	cpu			5,200	5,220	4,309	1,950	819	1,263	6,743	11,105	10,143		46,752		
		wall			5,500	5,550	4,615	2,145	901	1,389	6,859	11,138	11,059		49,156		
	CMS	cpu													0		
		wall													0		
	LHCb	cpu													0		
		wall													0		
	TOTAL	cpu	0	0	0	5,200	5,220	4,309	1,950	820	1,560	7,025	11,199	10,338	13,260	47,621	30%
		wall	0	0	0	5,500	5,550	4,615	2,145	902	1,703	7,185	11,242	11,267	n/a	50,109	n/a
	installed capacity**				408	408	408	408	408	408	408	408	408				
	cpu usage as % installed****	n/a	n/a	n/a	50%	50%	41%	19%	8%	15%	68%	108%	99%				

Notes - cpu tables

- * MoU monthly average - commitment in MoU for KSI2K-days of cpu time per month (includes efficiency factor)
- ** installed capacity - capacity installed (KSI2K)
- *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
- % MoU - percentage of MoU commitment in calendar year to current date
- **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre NDGF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	520
Disk (Tbytes)	170
Tape (Tbytes)	240

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%		
Disk Space - TBytes	ALICE	allocated																
		used								1	1	1	1					
	ATLAS	allocated																
		used				40	41	43	45	44	28	26	71	80				
	CMS	allocated																
		used																
	LHCb	allocated																
		used																
	TOTAL	allocated	0	0	0	0	0	0	0	0	0	0	0	0	170	0%		
		used	0	0	0	40	41	43	45	44	29	27	72	81	119	68%		
	installed capacity**				104	104	104	104	104	104	104	104	104					
	disk usage as % installed***	n/a	n/a	n/a	55%	56%	59%	62%	60%	40%	37%	99%	111%					

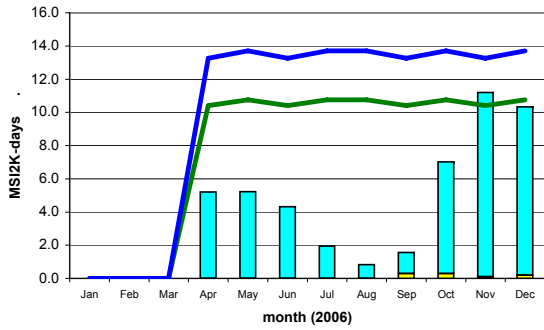
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Tape Space Used - TBytes	ALICE															
	ATLAS															
	CMS															
	LHCb															
	TOTAL		0	0	0	0	0	0	0	0	0	0	0	240	0%	
		installed capacity**				186	186	186	186	186	186	186	186			
	tape usage as % installed***	n/a	n/a	n/a	0%	0%	0%	0%	0%	0%	0%	0%	0%			

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

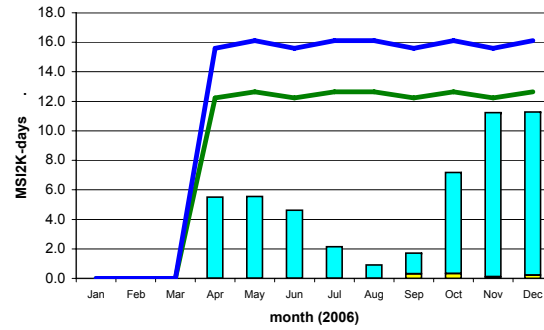
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NDGF

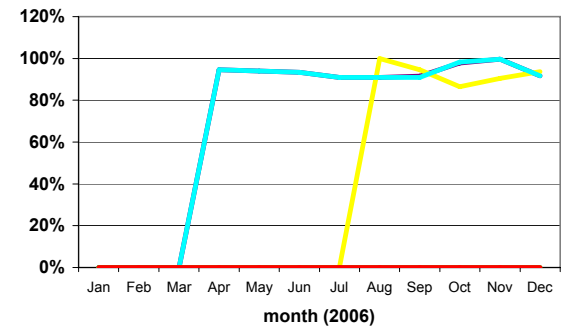
CPU Time Delivered



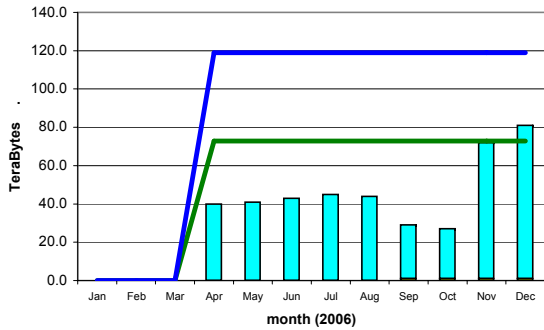
Wall-clock Time Delivered



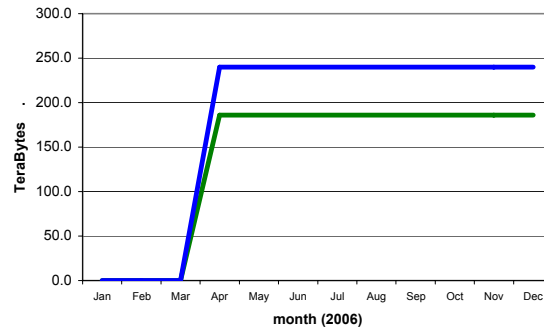
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE █
ATLAS █

CMS █
LHCb █

installed capacity (inc. efficiency factor) —
MoU commitment (inc. efficiency factor) —

site average (cpu:wall_clock) —



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre NL LHC/Tier-1

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	306
Disk (Tbytes)	170
Tape (Tbytes)	143

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU * monthly average	aggregate 2006 to date***			
														total	% MoU			
CPU Grid	ALICE	cpu	33	54		63	146	973	540	1,317	1,188	1,708	920	1,514		8,456		
		wall	33	54		63	269	985	807	2,014	1,917	2,371	1,133	1,792		11,438		
	ATLAS	cpu	1,413	3,106	3,191	1,977	2,346	4,097	1,313	2,025	2,816	4,529	2,887	4,830		34,530		
		wall	2,081	3,503	3,873	2,052	2,693	4,409	1,631	3,864	4,002	6,655	5,385	8,182		48,330		
	CMS	cpu	144		138	146	64	33	107	147	222	175				1,176		
		wall	145		138	146	64	33	108	147	226	178				1,185		
	LHCb	cpu	231	180	1,040	397	2,190	1,142	2,800	3,432	6,742	3,554	4,635	3,446		29,789		
		wall	266	214	1,139	412	2,391	1,222	3,198	3,754	7,147	3,897	5,253	4,553		33,446		
		TOTAL	cpu	1,821	3,340	4,369	2,583	4,746	6,245	4,760	6,921	10,968	9,966	8,442	9,790	7,803	73,951	79%
			wall	2,525	3,771	5,150	2,673	5,417	6,649	5,744	9,779	13,292	13,101	11,771	14,527	n/a	94,399	n/a
CPU Non-Grid	ALICE	cpu								290	108		109	51		558		
		wall								300	117		113	54		584		
	ATLAS	cpu														0		
		wall														0		
	CMS	cpu														0		
		wall														0		
	LHCb	cpu														0		
		wall														0		
		TOTAL	cpu	0	0	0	0	0	0	290	108	0	109	51	7,803	558	1%	
			wall	0	0	0	0	0	0	300	117	0	113	54	n/a	584	n/a	
CPU Total	ALICE	cpu	33	54		63	146	973	540	1,607	1,296	1,708	1,029	1,565		9,014		
		wall	33	54		63	269	985	807	2,314	2,034	2,371	1,246	1,846		12,022		
	ATLAS	cpu	1,413	3,106	3,191	1,977	2,346	4,097	1,313	2,025	2,816	4,529	2,887	4,830		34,530		
		wall	2,081	3,503	3,873	2,052	2,693	4,409	1,631	3,864	4,002	6,655	5,385	8,182		48,330		
	CMS	cpu	144		138	146	64	33	107	147	222	175				1,176		
		wall	145		138	146	64	33	108	147	226	178				1,185		
	LHCb	cpu	231	180	1,040	397	2,190	1,142	2,800	3,432	6,742	3,554	4,635	3,446		29,789		
		wall	266	214	1,139	412	2,391	1,222	3,198	3,754	7,147	3,897	5,253	4,553		33,446		
		TOTAL	cpu	1,821	3,340	4,369	2,583	4,746	6,245	4,760	7,211	11,076	9,966	8,551	9,841	7,803	74,509	80%
			wall	2,525	3,771	5,150	2,673	5,417	6,649	5,744	10,079	13,409	13,101	11,884	14,581	n/a	94,983	n/a
	installed capacity**				214	214	165	165	459	459	459	459	558					
	cpu usage as % installed****	n/a	n/a	n/a	47%	87%	148%	113%	62%	95%	85%	73%	69%					

Notes - cpu tables

- * MoU monthly average - commitment in MoU for KSI2K-days of cpu time per month (includes efficiency factor)
- ** installed capacity - capacity installed (KSI2K)
- *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
- % MoU - percentage of MoU commitment in calendar year to current date
- **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre NL LHC/Tier-1

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	306
Disk (Tbytes)	170
Tape (Tbytes)	143

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Disk Space - TBytes	ALICE	allocated					1	4	2	2	1	1	1			
		used						3								
	ATLAS	allocated	2	2	2	2	2	5	7	10	20	21	22			
		used	1	1	1	1	1	4	6	5	10	11	12	14		
	CMS	allocated														
		used														
	LHCb	allocated	1	1	1	1	2	4	6	6	6	34	34	34		
		used				1	1	1	3	2	2	2	2	5		
	TOTAL	allocated	3	3	3	3	4	10	17	15	18	55	56	57	170	34%
		used	1	1	1	2	2	5	12	7	12	13	14	19	119	16%
	installed capacity**				15	4	15	18	16	17	55	56	57			
	disk usage as % installed***	n/a	n/a	n/a	19%	71%	48%	95%	63%	101%	34%	36%	48%			

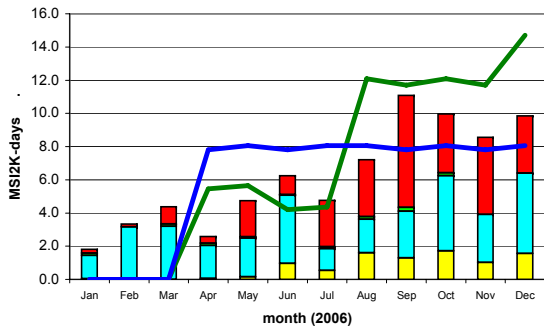
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Tape Space Used - TBytes	ALICE															
	ATLAS				10	18	18	18	18	18	18	18	18			
	CMS															
	LHCb				3	4	4	5	4	4	5	6	7			
	TOTAL		0	0	13	22	22	23	22	22	23	24	25	143	17%	
		installed capacity**				130	50	50	23	50	22	50	24	25		
		tape usage as % installed***	n/a	n/a	n/a	10%	44%	44%	100%	44%	100%	46%	100%	100%		

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

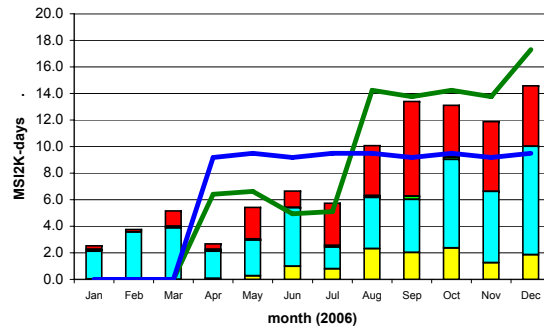
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NL LHC-Tier-1

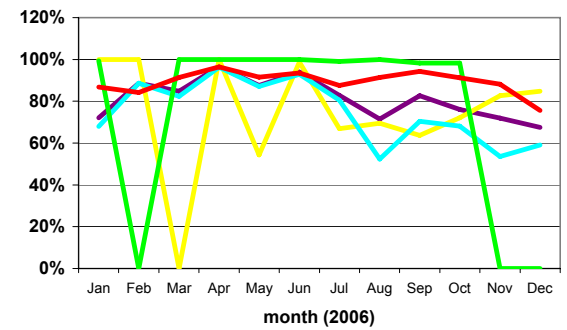
CPU Time Delivered



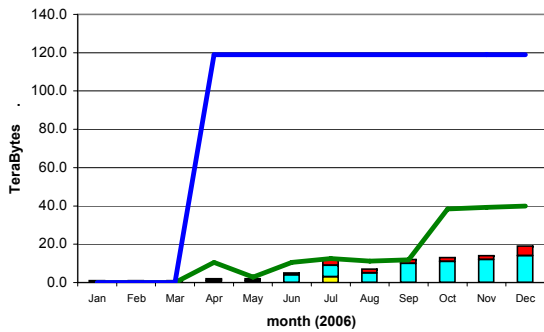
Wall-clock Time Delivered



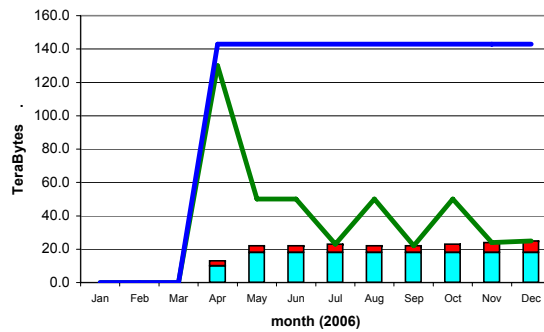
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE █ CMS █ installed capacity (inc. efficiency factor) — site average (cpu:wall_clock) —
 ATLAS █ LHCb █ MoU commitment (inc. efficiency factor) —



WLCG Accounting Summary

December 2006
Centre PIC

data source: site reports to LCG Project Office

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	250
Disk (Tbytes)	140
Tape (Tbytes)	158

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

CPU used - KSI2K-days		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU * monthly average	aggregate 2006 to date***		
															total	% MoU	
CPU Grid	ALICE	cpu														0	
		wall														0	
	ATLAS	cpu	781	1,944	1,245	1,214	738	1,076	1,263	1,144	772	812	3,692	10,518		25,199	
		wall	869	2,070	1,467	1,300	1,018	1,253	1,369	1,436	908	1,403	5,131	13,398		31,622	
	CMS	cpu	1,431	761	518	512	729	795	1,383	2,001	1,212	807	426	1,186		11,761	
		wall	2,976	871	1,123	683	875	1,094	1,817	2,063	1,278	1,113	901	1,762		16,556	
	LHCb	cpu	207	288	861	264	721	1,321	937	1,604	1,701	1,930	1,357	4,494		15,685	
		wall	686	526	1,006	286	1,025	1,495	1,047	1,731	1,788	1,962	1,518	5,255		18,325	
	TOTAL	cpu	2,419	2,993	2,624	1,990	2,188	3,192	3,583	4,749	3,685	3,549	5,475	16,198	6,375	52,645	69%
		wall	4,531	3,467	3,596	2,269	2,918	3,842	4,233	5,230	3,974	4,478	7,550	20,415	n/a	66,503	n/a
CPU Non-Grid	ALICE	cpu														0	
		wall														0	
	ATLAS	cpu														0	
		wall														0	
	CMS	cpu														0	
		wall														0	
	LHCb	cpu														0	
		wall														0	
	TOTAL	cpu	0	0	0	0	0	0	0	0	0	0	0	0	6,375	0	0%
		wall	0	0	0	0	0	0	0	0	0	0	0	0	n/a	0	n/a
CPU Total	ALICE	cpu														0	
		wall														0	
	ATLAS	cpu	781	1,944	1,245	1,214	738	1,076	1,263	1,144	772	812	3,692	10,518		25,199	
		wall	869	2,070	1,467	1,300	1,018	1,253	1,369	1,436	908	1,403	5,131	13,398		31,622	
	CMS	cpu	1,431	761	518	512	729	795	1,383	2,001	1,212	807	426	1,186		11,761	
		wall	2,976	871	1,123	683	875	1,094	1,817	2,063	1,278	1,113	901	1,762		16,556	
	LHCb	cpu	207	288	861	264	721	1,321	937	1,604	1,701	1,930	1,357	4,494		15,685	
		wall	686	526	1,006	286	1,025	1,495	1,047	1,731	1,788	1,962	1,518	5,255		18,325	
	TOTAL	cpu	2,419	2,993	2,624	1,990	2,188	3,192	3,583	4,749	3,685	3,549	5,475	16,198	6,375	52,645	69%
		wall	4,531	3,467	3,596	2,269	2,918	3,842	4,233	5,230	3,974	4,478	7,550	20,415	n/a	66,503	n/a
installed capacity**					150	150	150	150	150	150	150	296	600				
cpu usage as % installed****		n/a	n/a	n/a	52%	57%	83%	94%	124%	96%	93%	73%	106%				

Notes - cpu tables

- * MoU monthly average - commitment in MoU for KSI2K-days of cpu time per month (includes efficiency factor)
- ** installed capacity - capacity installed (KSI2K)
- *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
- % MoU - percentage of MoU commitment in calendar year to current date
- **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2006
Centre PIC

data source: site reports to LCG Project Office

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MoU pledges for 2006	
CPU (KSI2K-years)	250
Disk (Tbytes)	140
Tape (Tbytes)	158

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%
Disk Space - TBytes	ALICE	allocated														
		used														
	ATLAS	allocated					3	7	7	9	7	7	7			
		used					3	7	7	8	3	4	6			
	CMS	allocated	10	10	10	10	10	10	11	11	37	56	56	40		
		used	10	10	10	10	10	8	8	8	2	47	40	38		
	LHCb	allocated	1	1	1	1	1	3	3	3	3	4	4	22		
		used	1	1	1	1	1	1						12		
	TOTAL	allocated	11	11	11	11	11	16	21	21	49	67	67	69	140	49%
		used	11	11	11	11	11	12	15	15	10	50	44	56	98	57%
	installed capacity**				11	11	16	21	21	49	67	67	69			
	disk usage as % installed***	n/a	n/a	n/a	143%	143%	107%	102%	102%	29%	107%	94%	116%			

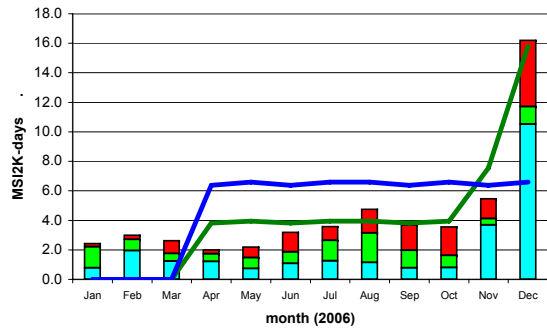
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%	
Tape Space Used - TBytes	ALICE																
	ATLAS				38	40	53	54	54	54	61	51	53				
	CMS				27	27	27	27	32	37	41	41	41				
	LHCb				29	30	29	18	20	24	34	37	40				
	TOTAL		0	0	94	97	109	99	106	115	136	129	134	158	85%		
		installed capacity**				107	109	122	111	115	123	143	136	136			
		tape usage as % installed***	n/a	n/a	n/a	88%	89%	89%	89%	92%	93%	95%	95%	99%			

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

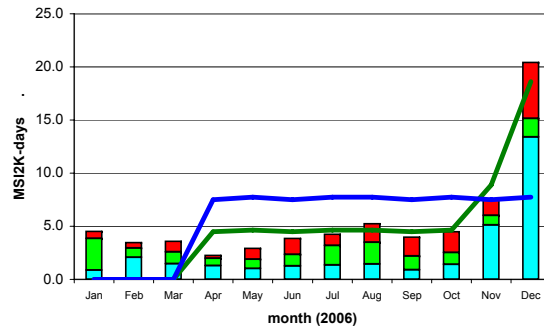
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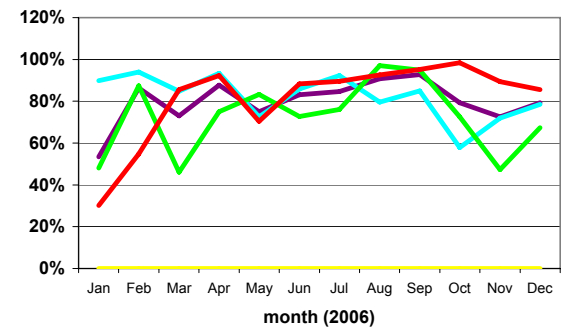
CPU Time Delivered



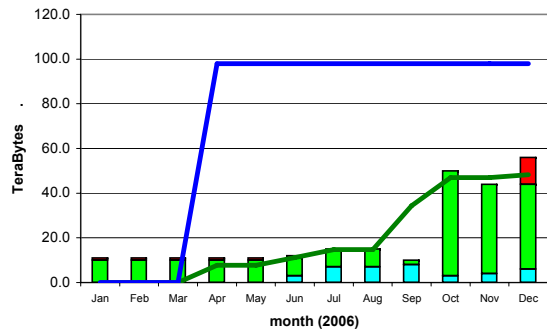
Wall-clock Time Delivered



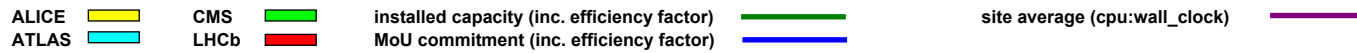
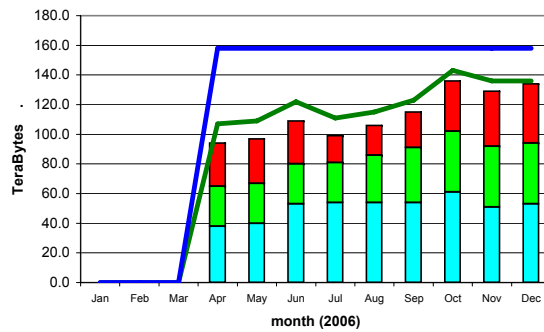
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used





WLCG Accounting Summary

December 2006
Centre RAL

data source: site reports to LCG Project Office

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	980
Disk (Tbytes)	449
Tape (Tbytes)	664

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU * monthly average	aggregate 2006 to date***		
														total	% MoU		
CPU Grid	ALICE	cpu	306	228		41	102	571	568	430	257	364	558	610		4,035	
		wall	427	279	6	54	156	603	685	732	674	1,119	702	704		6,141	
	ATLAS	cpu	1,358	3,568	3,579	2,482	4,860	6,125	6,292	1,890	2,526	3,039	3,079	4,459		43,257	
		wall	1,576	3,817	3,857	2,624	5,255	6,729	7,412	2,547	3,449	5,594	5,009	5,514		53,383	
	CMS	cpu	1,954	567	852	1,853	2,433	3,055	3,593	5,159	8,209	1,929	2,804	2,383		34,791	
		wall	2,058	770	977	1,881	2,590	3,173	3,979	6,189	9,307	2,032	4,507	3,680		41,143	
	LHCb	cpu	235	196	494	2,355	6,436	8,071	7,671	11,683	7,079	7,685	5,768	3,065		60,738	
		wall	379	275	544	2,451	7,436	8,536	8,860	13,062	7,536	8,157	6,824	5,504		69,564	
	TOTAL	cpu	3,853	4,559	4,925	6,731	13,831	17,822	18,124	19,162	18,071	13,017	12,209	10,517	24,990	142,821	48%
		wall	4,440	5,141	5,384	7,010	15,437	19,041	20,936	22,530	20,966	16,902	17,042	15,402	n/a	170,231	n/a
CPU Non-Grid	ALICE	cpu														0	
		wall														0	
	ATLAS	cpu	98	152	271	1,509	1,007	116	80	67	718	138	119	20		4,295	
		wall	111	165	297	1,547	1,052	130	90	85	787	171	173	39		4,647	
	CMS	cpu	9	129	760		7	1	4	6	20	8	2	1		947	
		wall	12	134	787	2	10	1	4	18	87	99	4	61		1,219	
	LHCb	cpu	714	58	578	130			306	618	126	398	336	369		3,633	
		wall	750	59	647	189			397	959	130	505	363	396		4,395	
	TOTAL	cpu	821	339	1,609	1,639	1,014	117	390	691	864	544	457	390	24,990	8,875	3%
		wall	873	358	1,731	1,738	1,062	131	491	1,062	1,004	775	540	496	n/a	10,261	n/a
CPU Total	ALICE	cpu	306	228		41	102	571	568	430	257	364	558	610		4,035	
		wall	427	279	6	54	156	603	685	732	674	1,119	702	704		6,141	
	ATLAS	cpu	1,456	3,720	3,850	3,991	5,867	6,241	6,372	1,957	3,244	3,177	3,198	4,479		47,552	
		wall	1,687	3,982	4,154	4,171	6,307	6,859	7,502	2,632	4,236	5,765	5,182	5,553		58,030	
	CMS	cpu	1,963	696	1,612	1,853	2,440	3,056	3,597	5,165	8,229	1,937	2,806	2,384		35,738	
		wall	2,070	904	1,764	1,883	2,600	3,174	3,983	6,207	9,394	2,131	4,511	3,741		42,362	
	LHCb	cpu	949	254	1,072	2,485	6,436	8,071	7,977	12,301	7,205	8,083	6,104	3,434		64,371	
		wall	1,129	334	1,191	2,640	7,436	8,536	9,257	14,021	7,666	8,662	7,187	5,900		73,959	
	TOTAL	cpu	4,674	4,898	6,534	8,370	14,845	17,939	18,514	19,853	18,935	13,561	12,666	10,907	24,990	151,696	51%
		wall	5,313	5,499	7,115	8,748	16,499	19,172	21,427	23,592	21,970	17,677	17,582	15,898	n/a	180,492	n/a
installed capacity**			225	225	507	507	507	700	700	700	602	652	652				
cpu usage as % installed****		n/a	91%	110%	65%	115%	139%	104%	111%	106%	88%	76%	66%				

Notes - cpu tables

- * MoU monthly average - commitment in MoU for KSI2K-days of cpu time per month (includes efficiency factor)
- ** installed capacity - capacity installed (KSI2K)
- *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
- % MoU - percentage of MoU commitment in calendar year to current date
- **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2006
Centre RAL

data source: site reports to LCG Project Office

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	980
Disk (Tbytes)	449
Tape (Tbytes)	664

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%	
Disk Space - TBytes	ALICE	allocated								2	2	2	2				
		used															
	ATLAS	allocated	14	14	16	16	13	16	18	17	17	18	18	24			
		used	8	8	10	10	7	10	11	14	14	14	14	21			
	CMS	allocated	28	28	28	29	28	21	26	19	19	80	78	57			
		used	17	19	19	11	11	11	14	14	15	68	66	49			
	LHCb	allocated	2	2	7	7	7	20	21	21	21	21	21	21			
		used	1	1	5	5	5	9	8	8	9	12	16	17			
	TOTAL	allocated	44	44	51	52	48	57	65	59	59	121	119	104	449	23%	
		used	26	28	34	26	23	30	33	36	38	94	96	87	314	28%	
	installed capacity**	40	40	40	64	64	64	64	60	60	140	140	140				
	disk usage as % installed***	93%	100%	121%	58%	51%	67%	74%	86%	90%	96%	98%	89%				

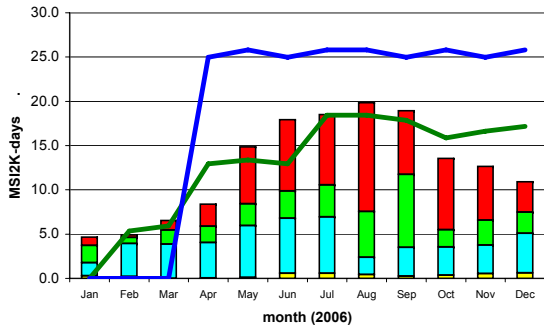
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%	
Tape Space Used - TBytes	ALICE								2	8	30	46	48				
	ATLAS	11	11	12	11	11	11	38	47	54	62	62	64				
	CMS	21	26	26	35	36	32	36	39	42	44	122	180				
	LHCb	10	11	12	10	10	10	11	14	19	28	31	35				
	TOTAL	42	48	50	56	57	53	85	102	123	164	261	327	664	49%		
		installed capacity**	70	70	70	160	160	160	253	253	253	253	332	268			
		tape usage as % installed***	60%	69%	71%	35%	36%	33%	34%	40%	49%	65%	79%	122%			

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

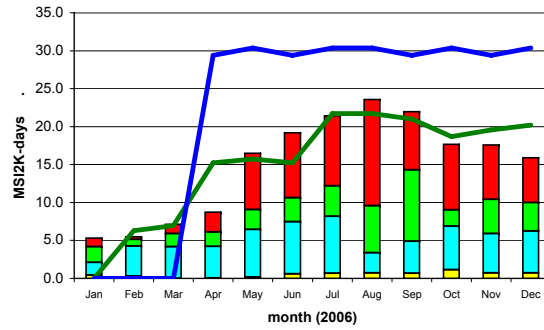
Comments:
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 Tape use exceeds allocation because tape used in Castor is in addition to allocations.

RAL

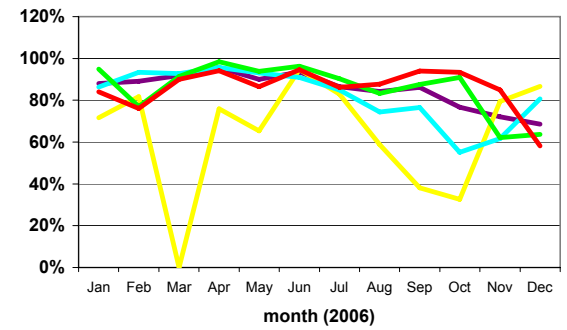
CPU Time Delivered



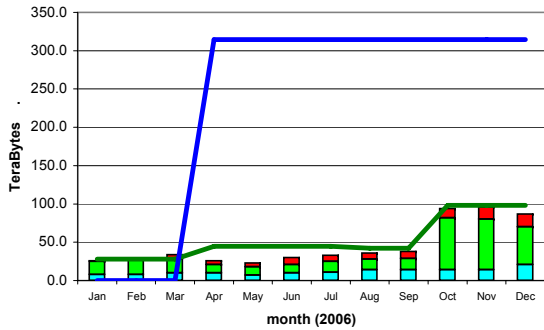
Wall-clock Time Delivered



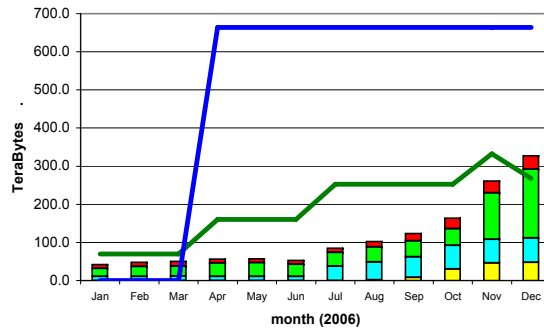
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE █
ATLAS █

CMS █
LHCb █

installed capacity (inc. efficiency factor) —
MoU commitment (inc. efficiency factor) —

site average (cpu:wall_clock) —



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre TRIUMF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	150
Disk (Tbytes)	12
Tape (Tbytes)	12

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

CPU used - KSI2K-days		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU * monthly average	aggregate 2006 to date***		
															total	% MoU	
CPU Grid	ALICE	cpu														0	
		wall														0	
	ATLAS	cpu	209	349	296	493	371	321	301	282	108	1,274	2,768	4,850		11,622	
		wall	263	390	388	538	437	377	416	397	212	1,450	3,134	3,378		11,380	
	CMS	cpu	21		8											29	
		wall	22		8											30	
	LHCb	cpu	13	20	2											35	
		wall	21	23	2											46	
	TOTAL	cpu	243	369	306	493	371	321	301	282	108	1,274	2,768	4,850	3,825	11,686	25%
		wall	306	413	398	538	437	377	416	397	212	1,450	3,134	3,378	n/a	11,456	n/a
CPU Non-Grid	ALICE	cpu														0	
		wall														0	
	ATLAS	cpu														0	
		wall														0	
	CMS	cpu														0	
		wall														0	
	LHCb	cpu														0	
		wall														0	
TOTAL	cpu	0	0	0	0	0	0	0	0	0	0	0	0	3,825	0	0%	
	wall	0	0	0	0	0	0	0	0	0	0	0	0	n/a	0	n/a	
CPU Total	ALICE	cpu														0	
		wall														0	
	ATLAS	cpu	209	349	296	493	371	321	301	282	108	1,274	2,768	4,850		11,622	
		wall	263	390	388	538	437	377	416	397	212	1,450	3,134	3,378		11,380	
	CMS	cpu	21		8											29	
		wall	22		8											30	
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		wall	21	23	2											46	
	TOTAL	cpu	243	369	306	493	371	321	301	282	108	1,274	2,768	4,850	3,825	11,686	25%
		wall	306	413	398	538	437	377	416	397	212	1,450	3,134	3,378	n/a	11,456	n/a
	installed capacity**				17	17	17	17	17	17	146	190	240				
	cpu usage as % installed****	n/a	n/a	n/a	114%	86%	74%	69%	65%	25%	34%	57%	79%				

Notes - cpu tables

- * MoU monthly average - commitment in MoU for KSI2K-days of cpu time per month (includes efficiency factor)
- ** installed capacity - capacity installed (KSI2K)
- *** aggregate 2006 to date - total - KSI2K-days delivered in calendar year to current date
- % MoU - percentage of MoU commitment in calendar year to current date
- **** cpu usage as % installed - includes efficiency factor



WLCG Accounting Summary

December 2006 data source: site reports to LCG Project Office
Centre TRIUMF

Please report accounting data in the shaded cells and return the report to lcg.office@cern.ch

MoU pledges for 2006	
CPU (KSI2K-years)	150
Disk (Tbytes)	12
Tape (Tbytes)	12

Standard efficiency factors	
Scheduled cpu used (Tier-0, -1)	85%
Chaotic cpu used (Tier-2)	60%
Disk utilisation	70%
Mass store utilisation	100%

		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%	
Disk Space - TBytes	ALICE	allocated															
		used															
	ATLAS	allocated	6	6	6	6	6	6	12	12	12	12	12				
		used	1	1	2	2	3	3	4	6	7	9	10	11			
	CMS	allocated															
		used															
	LHCb	allocated															
		used															
	TOTAL	allocated	6	6	6	6	6	6	6	12	12	12	12	12	12	100%	
		used	1	1	2	2	3	3	4	6	7	9	10	11	8	138%	
	installed capacity**				6	6	6	6	12	12	12	12	12				
	disk usage as % installed***	n/a	n/a	n/a	48%	71%	71%	95%	71%	83%	107%	119%	131%				

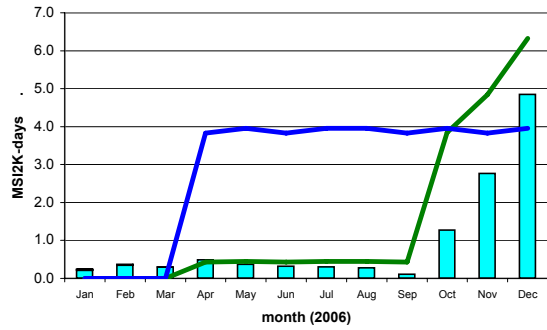
		Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	MoU*	last month as MoU	%	
Tape Space Used - TBytes	ALICE																
	ATLAS																
	CMS																
	LHCb																
	TOTAL		0	0	0	0	0	0	0	0	0	0	0	12	0%		
		installed capacity**				12	12	12	12	12	12	12	12	12			
		tape usage as % installed***	n/a	n/a	n/a	0%	0%	0%	0%	0%	0%	0%	0%	0%			

Notes - disk and tape tables
 Space used/allocated at end of the calendar month
 * MoU - commitment in MoU for data storage - includes efficiency factors for space used
 ** installed capacity - capacity installed (TB)
 *** disk/tape usage as % installed - includes efficiency factor

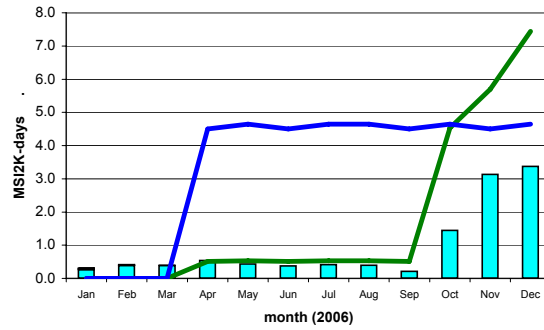
Comments:
 Revised our KSI2K numbers for our current CPU capacity. But according to our benchmarks the new CPU are only ~2.4 KSI2K instead of 3 KSI2K as published by vendors on specs.org. In the future we may use the official number and change all our numbers.
 max 255 chars

TRIUMF

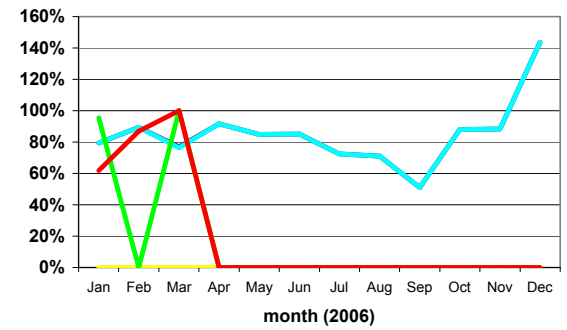
CPU Time Delivered



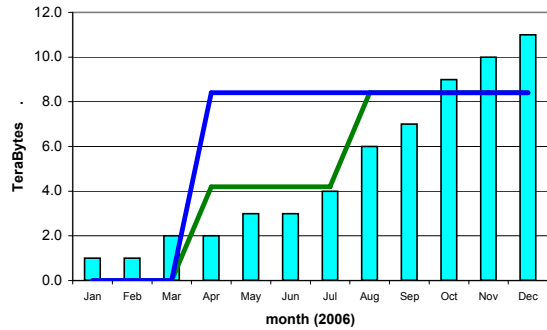
Wall-clock Time Delivered



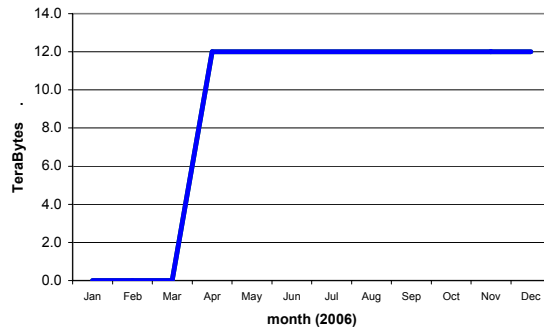
Ratio of CPU : Wall_clock Times



Disk Storage Used



Tape Storage Used



ALICE █
ATLAS █

CMS █
LHCb █

installed capacity (inc. efficiency factor) —
MoU commitment (inc. efficiency factor) —

site average (cpu:wall_clock) —