Cache

SIZE (KB)	WAYS	BLOCK (B)
2048	16	32

Baseline

TRACE	LENGTH (KB)	USED (KB)	REQUESTS	HITS	MISSES	UTIL (%)	HITS (%)	MISSES (%)
bisort.pool	6456	20	245062	244422	640	0.98%	99.74%	0.26%
bisort	6424	32	245062	244038	1024	1.56%	99.58%	0.42%
llu.pool	35639	50.2188	1372785	1371178	1607	2.45%	99.88%	0.12%
llu	37762	66.6562	1372785	1370652	2133	3.25%	99.84%	0.16%
sort-100.pool	324	1.375	11091	11047	44	0.07%	99.60%	0.40%
sort-100	324	1.625	11091	11039	52	0.08%	99.53%	0.47%
sort.pool	7583	6.40625	255491	255286	205	0.31%	99.92%	0.08%
sort	7582	7.84375	255491	255240	251	0.38%	99.90%	0.10%

Base-Delta

TRACE	LENGTH (KB)	USED (KB)	REQUESTS	HITS	MISSES	UTIL (%)	HITS (%)	MISSES (%)
bisort.pool	6456	17.625	245062	244422	640	0.86%	99.74%	0.26%
bisort	6424	27.9531	245062	244038	1024	1.36%	99.58%	0.42%
llu.pool	35639	17.8828	1372785	1364863	7922	0.87%	99.42%	0.58%
llu	37762	60.4844	1372785	1365875	6910	2.95%	99.50%	0.50%
sort-100.pool	324	0.75	11091	11047	44	0.04%	99.60%	0.40%
sort-100	324	1.46875	11091	11039	52	0.07%	99.53%	0.47%
sort.pool	7583	3.46875	255491	255286	205	0.17%	99.92%	0.08%
sort	7582	7.46875	255491	255240	251	0.36%	99.90%	0.10%

Implementation Comparison

Space Utilization

TRACE	NONE	POOLING	BASE-DELTA	BΔ + POOL	BASE	POOLING	BASE-DELTA	BΔ + POOL
					Normalized Results			
bisort	32	20	27.9531	17.625	100.00%	62.50%	87.35%	55.08%
llu	66.6562	50.2188	60.4844	17.8828	100.00%	75.34%	90.74%	26.83%
sort	7.84375	6.40625	7.46875	3.46875	100.00%	81.67%	95.22%	44.22%

Performance

TRACE	NONE	POOLING	BASE-DELTA	BΔ + POOL	BASE	POOLING	BASE-DELTA	BΔ + POOL
					Normalized Results			
bisort	99.58%	99.74%	99.58%	99.74%	100.00%	100.16%	100.00%	100.16%
llu	99.84%	99.88%	99.50%	99.42%	100.00%	100.04%	99.65%	99.58%
sort	99.90%	99.92%	99.90%	99.92%	100.00%	100.02%	100.00%	100.02%

Effect of Pooling on Base-Delta

TRACE	ZEROS	REPEATED	MEDIUM	LARGE	TOTAL
bisort	4	0	253	767	1024
bisort.pool	0	0	152	488	640
llu	0	0	345	1763	2108
llu.pool	833	97	624	28	1582
sort	0	0	0	251	251
sort.pool	125	0	0	80	205