

1 No-Load

$k=48$ Workpackets

Input Size	MALMS	MCSTL	MCSTL Advantage (in percent)
10^2	0.001595	0.00038	76.2%
10^3	0.001608	0.000429	73.3%
10^4	0.001425	0.000576	59.6%
10^5	0.00268	0.00216	19.4%
10^6	0.020151	0.019166	4.9%
10^7	0.210865	0.21368	-1.3%
10^8	2.340926	2.324939	0.7%

$k=100$ Workpackets

Input Size	MALMS	MCSTL	MCSTL Advantage (in percent)
10^2	0.003044	0.000386	87.3%
10^3	0.003149	0.000431	86.3%
10^4	0.002953	0.000581	80.3%
10^5	0.003959	0.002168	45.2%
10^6	0.022443	0.019084	15%
10^7	0.219532	0.208887	4.8%
10^8	2.362872	2.315005	2%

2 Dyn Load

$k=24$ Workpackets

1ms Cycles

Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (in percent)
10^2	0.003748	0.001764	0.088361	-112.5%	-2257.2%
10^3	0.003842	0.000802	0.103336	-379.1%	-2589.3%
10^4	0.001548	0.001547	0.07165	-0.1%	-4528.5%
10^5	0.007857	0.005788	0.051262	-35.7%	-552.4%
10^6	0.030039	0.031386	0.08844	4.3%	-194.4%
10^7	0.282888	0.287076	0.408284	1.5%	-44.3%
10^8	2.992504	2.957957	3.274931	-1.2%	-9.4%

$k=48$ Workpackets

1ms Cycles

Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (in percent)
10^2	0.005211	0.001923	0.078381	-171%	-1404.2%
10^3	0.003866	0.002891	0.088412	-33.7%	-2187.1%
10^4	0.003739	0.002667	0.064031	-40.2%	-1612.4%
10^5	0.005737	0.007227	0.058388	20.6%	-917.8%
10^6	0.030843	0.034278	0.084826	10%	-175%
10^7	0.288147	0.279497	0.384511	-3.1%	-33.4%
10^8	2.99257	3.003029	3.279523	0.3%	-9.6%

$k=48$ Workpackets

100μs Cycles

Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (i
10^2	0.003366	0.006141	0.102218	45.2%	-2937.2%
10^3	0.003022	0.004344	0.097807	30.4%	-3136.9%
10^4	0.002609	0.004346	0.087118	40%	-3239.4%
10^5	0.004518	0.004163	0.066076	-8.5%	-1362.6%
10^6	0.029083	0.030626	0.081255	5%	-179.4%
10^7	0.290592	0.303635	0.433073	4.3%	-49%
10^8	3.048884	2.99899	3.615914	-1.7%	-18.6%

$k=100$ Workpackets

$100\mu s$ Cycles

Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (i
10^2	0.004363	0.006076	0.059796	28.2%	-1270.4%
10^3	0.00525	0.006035	0.03821	13%	-627.9%
10^4	0.00621	0.006109	0.04147	-1.7%	-567.8%
10^5	0.005651	0.006027	0.06429	6.2%	-1037.7%
10^6	0.031122	0.031691	0.110715	1.8%	-255.7%
10^7	0.286642	0.282691	0.422037	-1.4%	-47.2%
10^8	3.083056	3.048327	3.639365	-1.1%	-18%

$k=24$ Workpackets

$50\mu s$ Cycles

Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (i
10^2	0.002386	0.002453	0.045155	2.7%	-1792.5%
10^3	0.002092	0.001774	0.052001	-17.9%	-2386.2%
10^4	0.00433	0.003913	0.027812	-10.7%	-542.3%
10^5	0.01113	0.005676	0.063119	-96.1%	-467.1%
10^6	0.034285	0.030547	0.070733	-12.2%	-106.3%
10^7	0.298107	0.284118	0.413568	-4.9%	-38.7%
10^8	3.181593	3.008502	3.570044	-5.8%	-12.2%

$k=48$ Workpackets

$50\mu s$ Cycles

Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (i
10^2	0.003118	0.00413	0.048071	24.5%	-1441.5%
10^3	0.002442	0.002348	0.080095	-4%	-3179.9%
10^4	0.002693	0.005534	0.08237	51.3%	-2958.2%
10^5	0.004578	0.005073	0.07752	9.8%	-1593.2%
10^6	0.029227	0.029767	0.091922	1.8%	-214.5%
10^7	0.294526	0.295748	0.417455	0.4%	-41.7%
10^8	3.029264	3.006998	3.605379	-0.7%	-19%

$k=100$ Workpackets

$50\mu s$ Cycles

Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (in %)
10^2	0.004081	0.004222	0.022788	3.3%	-458.4%
10^3	0.003766	0.004372	0.052141	13.9%	-1284.5%
10^4	0.004912	0.004283	0.08816	-14.7%	-1694.6%
10^5	0.005924	0.005322	0.076461	-11.3%	-1190.8%
10^6	0.030799	0.030861	0.105178	0.2%	-241.5%
10^7	0.289326	0.283533	0.424738	-2%	-46.8%
10^8	3.092594	3.090372	3.615908	-0.1%	-16.9%

$k=48$ Workpackets

$10\mu s$ Cycles

Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (in %)
10^2	0.002929	0.003782	0.06581	22.6%	-2146.8%
10^3	0.004655	0.00404	0.073691	-15.2%	-1482.9%
10^4	0.003244	0.002768	0.073163	-17.2%	-2155.2%
10^5	0.003892	0.004551	0.072888	14.5%	-1772.8%
10^6	0.0299	0.027135	0.119031	-10.2%	-298.1%
10^7	0.295838	0.291378	0.428497	-1.5%	-44.8%
10^8	3.065203	3.038751	3.692821	-0.9%	-20.5%