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)	
·	7	MCSTL 0.000386	MCSTL Advantage (in percent) 87.3%	
Input Size	MALMS		0 (1 /	
$\frac{\text{Input Size}}{10^2}$	MALMS 0.003044	0.000386	87.3%	
$ \begin{array}{r} $	MALMS 0.003044 0.003149	0.000386 0.000431	87.3% 86.3%	
$ \begin{array}{r} \text{Input Size} \\ \hline 10^2 \\ 10^3 \\ 10^4 \end{array} $	MALMS 0.003044 0.003149 0.002953	0.000386 0.000431 0.000581	87.3% 86.3% 80.3%	
Input Size 10^2 10^3 10^4 10^5	MALMS 0.003044 0.003149 0.002953 0.003959	0.000386 0.000431 0.000581 0.002168	87.3% 86.3% 80.3% 45.2%	
Input Size 10 ² 10 ³ 10 ⁴ 10 ⁵ 10 ⁶	MALMS 0.003044 0.003149 0.002953 0.003959 0.022443	0.000386 0.000431 0.000581 0.002168 0.019084	87.3% 86.3% 80.3% 45.2% 15%	

2 Dyn Load

k=24 Workpackets

1ms Cycles

Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (ii
-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
-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

 $100\mu s$ Cycles

Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (in
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 Work	packets	'	'	'	
$100\mu s$ Cycles					
Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (in
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 Workp	ackets	'	'	'	
$50\mu s$ Cycles					
Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (in
4.09	0.002386	0.002453	0.045155	2.7%	-1792.5%
10^{2}	0.002360				
10^{3}	0.002092	0.001774	0.052001	-17.9%	-2386.2%
$\frac{10^3}{10^4}$			$0.052001 \\ 0.027812$	-17.9% -10.7%	-2386.2% -542.3%
10^3 10^4 10^5	0.002092	0.001774			
10^3 10^4 10^5 10^6	0.002092 0.00433	0.001774 0.003913	0.027812	-10.7% -96.1% -12.2%	-542.3% -467.1% -106.3%
10^3 10^4 10^5	0.002092 0.00433 0.01113	0.001774 0.003913 0.005676	$\begin{array}{c} 0.027812 \\ 0.063119 \end{array}$	-10.7% -96.1%	-542.3% -467.1%
10^3 10^4 10^5 10^6	0.002092 0.00433 0.01113 0.034285	0.001774 0.003913 0.005676 0.030547	0.027812 0.063119 0.070733	-10.7% -96.1% -12.2%	-542.3% -467.1% -106.3%
$ \begin{array}{c} 10^3 \\ 10^4 \\ 10^5 \\ 10^6 \\ 10^7 \end{array} $	0.002092 0.00433 0.01113 0.034285 0.298107 3.181593	0.001774 0.003913 0.005676 0.030547 0.284118	0.027812 0.063119 0.070733 0.413568	-10.7% -96.1% -12.2% -4.9%	-542.3% -467.1% -106.3% -38.7%
$ \begin{array}{c} 10^3 \\ 10^4 \\ 10^5 \\ 10^6 \\ 10^7 \\ 10^8 \end{array} $	0.002092 0.00433 0.01113 0.034285 0.298107 3.181593	0.001774 0.003913 0.005676 0.030547 0.284118 3.008502	0.027812 0.063119 0.070733 0.413568 3.570044	-10.7% -96.1% -12.2% -4.9%	-542.3% -467.1% -106.3% -38.7%
10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8} $k=48$ Workpt $50\mu s$ Cycles Input Size	0.002092 0.00433 0.01113 0.034285 0.298107 3.181593	0.001774 0.003913 0.005676 0.030547 0.284118	0.027812 0.063119 0.070733 0.413568	-10.7% -96.1% -12.2% -4.9% -5.8% MALMS Info Advantage	-542.3% -467.1% -106.3% -38.7% -12.2% MCSTL Advantage (ii
10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8} $k=48 \text{ Workps}$ $50\mu s \text{ Cycles}$ Input Size 10^{2}	0.002092 0.00433 0.01113 0.034285 0.298107 3.181593 ackets	0.001774 0.003913 0.005676 0.030547 0.284118 3.008502	0.027812 0.063119 0.070733 0.413568 3.570044	-10.7% -96.1% -12.2% -4.9% -5.8%	-542.3% -467.1% -106.3% -38.7% -12.2%
10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8} $k=48$ Workpt $50\mu s$ Cycles Input Size	0.002092 0.00433 0.01113 0.034285 0.298107 3.181593 ackets	0.001774 0.003913 0.005676 0.030547 0.284118 3.008502 MALMS No Info	0.027812 0.063119 0.070733 0.413568 3.570044 MCSTL	-10.7% -96.1% -12.2% -4.9% -5.8% MALMS Info Advantage	-542.3% -467.1% -106.3% -38.7% -12.2% MCSTL Advantage (ii
10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8} $k=48 \text{ Workps}$ $50\mu s \text{ Cycles}$ Input Size 10^{2}	0.002092 0.00433 0.01113 0.034285 0.298107 3.181593 ackets MALMS 0.003118	0.001774 0.003913 0.005676 0.030547 0.284118 3.008502 MALMS No Info 0.00413	0.027812 0.063119 0.070733 0.413568 3.570044 MCSTL 0.048071	-10.7% -96.1% -12.2% -4.9% -5.8% MALMS Info Advantage 24.5%	-542.3% -467.1% -106.3% -38.7% -12.2% MCSTL Advantage (in -1441.5%
10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8} $k=48$ Workpa $50\mu s$ Cycles Input Size 10^{2} 10^{3}	0.002092 0.00433 0.01113 0.034285 0.298107 3.181593 ackets MALMS 0.003118 0.002442	0.001774 0.003913 0.005676 0.030547 0.284118 3.008502 MALMS No Info 0.00413 0.002348	0.027812 0.063119 0.070733 0.413568 3.570044 MCSTL 0.048071 0.080095	-10.7% -96.1% -12.2% -4.9% -5.8% MALMS Info Advantage 24.5% -4%	-542.3% -467.1% -106.3% -38.7% -12.2% MCSTL Advantage (in -1441.5% -3179.9%
10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8} $k=48$ Workpa $50\mu s$ Cycles Input Size 10^{2} 10^{3} 10^{4}	0.002092 0.00433 0.01113 0.034285 0.298107 3.181593 ackets MALMS 0.003118 0.002442 0.002693	0.001774 0.003913 0.005676 0.030547 0.284118 3.008502 MALMS No Info 0.00413 0.002348 0.005534	0.027812 0.063119 0.070733 0.413568 3.570044 MCSTL 0.048071 0.080095 0.08237	-10.7% -96.1% -12.2% -4.9% -5.8% MALMS Info Advantage 24.5% -4% 51.3%	-542.3% -467.1% -106.3% -38.7% -12.2% MCSTL Advantage (in -1441.5% -3179.9% -2958.2%
10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8} $k=48$ Workpa $50\mu s$ Cycles Input Size 10^{2} 10^{3} 10^{4} 10^{5}	0.002092 0.00433 0.01113 0.034285 0.298107 3.181593 ackets MALMS 0.003118 0.002442 0.002693 0.004578	0.001774 0.003913 0.005676 0.030547 0.284118 3.008502 MALMS No Info 0.00413 0.002348 0.005534 0.005073	0.027812 0.063119 0.070733 0.413568 3.570044 MCSTL 0.048071 0.080095 0.08237 0.07752	-10.7% -96.1% -12.2% -4.9% -5.8% MALMS Info Advantage 24.5% -4% 51.3% 9.8%	-542.3% -467.1% -106.3% -38.7% -12.2% MCSTL Advantage (in -1441.5% -3179.9% -2958.2% -1593.2%
$\begin{array}{c} 10^{3} \\ 10^{4} \\ 10^{5} \\ 10^{6} \\ 10^{7} \\ 10^{8} \\ k=48 \text{ Workpa} \\ 50\mu s \text{ Cycles} \\ \hline 10^{2} \\ 10^{3} \\ 10^{4} \\ 10^{5} \\ 10^{6} \\ \end{array}$	0.002092 0.00433 0.01113 0.034285 0.298107 3.181593 ackets MALMS 0.003118 0.002442 0.002693 0.004578 0.029227	0.001774 0.003913 0.005676 0.030547 0.284118 3.008502 MALMS No Info 0.00413 0.002348 0.005534 0.005073 0.029767	0.027812 0.063119 0.070733 0.413568 3.570044 MCSTL 0.048071 0.080095 0.08237 0.07752 0.091922	-10.7% -96.1% -12.2% -4.9% -5.8% MALMS Info Advantage 24.5% -4% 51.3% 9.8% 1.8%	-542.3% -467.1% -106.3% -38.7% -12.2% MCSTL Advantage (in -1441.5% -3179.9% -2958.2% -1593.2% -214.5%
10^{3} 10^{4} 10^{5} 10^{6} 10^{7} 10^{8} $k=48 \text{ Workpa}$ $50\mu s \text{ Cycles}$ 10^{2} 10^{3} 10^{4} 10^{5} 10^{6} 10^{7}	0.002092 0.00433 0.01113 0.034285 0.298107 3.181593 ackets MALMS 0.003118 0.002442 0.002693 0.004578 0.029227 0.294526 3.029264	0.001774 0.003913 0.005676 0.030547 0.284118 3.008502 MALMS No Info 0.00413 0.002348 0.005534 0.005073 0.029767 0.295748	0.027812 0.063119 0.070733 0.413568 3.570044 MCSTL 0.048071 0.080095 0.08237 0.07752 0.091922 0.417455	-10.7% -96.1% -12.2% -4.9% -5.8% MALMS Info Advantage 24.5% -4% 51.3% 9.8% 1.8% 0.4%	-542.3% -467.1% -106.3% -38.7% -12.2% MCSTL Advantage (in -1441.5% -3179.9% -2958.2% -1593.2% -214.5% -41.7%

 $50\mu s$ Cycles

Input Size	MALMS	MALMS No Info	MCSTL	MALMS Info Advantage	MCSTL Advantage (i:
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 Workp	ackets		•	'	'
$10\mu s$ 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%
_			I	1	I

0.428497

3.692821 | -0.9%

-1.5%

-44.8%

-20.5%

 10^{7}

 10^{8}

0.295838

 $3.065203 \mid 3.038751$

0.291378