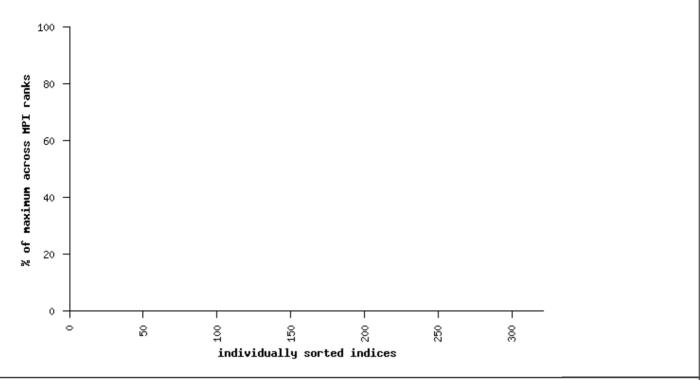
5498102 • Load Balance • Communication Balance		command: /gpfs/fs0/scratch/l/lcl_uotiscscc/lcl_uotiscsccs1040/didwdidw/1_ipm//lammps- 29Oct20/src/lmp_intel_cpu_intelmpi_O3_IPM -sf intel -in/inputs/in_newton_off_sort1250.lj -pk intel 0 omp 1 mode double					
	Sizes Communication	codename:	unknown		unknown		
	TopologySwitch Traffic	username:	lcl_uotiscsccs10unknown	group:			
	 Memmory Usage Executable Info 	host:	nia1743.scinet. (x86_64_Linux)	mpi_tasks:	320 on 4 hosts		
	Host List	start:	06/16/21/14:40:53	wallclock:	3.49798e+02 sec		
	 <u>Environment</u> <u>Developer Info</u>	stop:	06/16/21/14:46:43	%comm:	28.4995108784213		
	powered by	total memory:	38.699102 gbytes	total gflop/sec:	0		
	<u>IPM</u>	switch(send):	0 gbytes	switch(recv):	0 gbytes		

(Computation		Communication			
Event	Count	Pop	% of MPI Time			
			MPI_Wait MPI_Sendrecv MPI_Send MPI_Allreduce MPI_Irecv MPI_Barrier MPI_Reduce MPI_Scan MPI_Bcast MPI_Comm_free MPI_Comm_rank MPI_Comm_size			

HPM Counter Statistics								
Event	Ntasks	A	vg	Min(ran	k)	М	ax(rank)	
Communication Event Statistics (100.00% detail, –1.6959e–02 error)								
	Buffer Size	Ncalls	Total Time	Min Time	Max Time	%MPI	%Wall	
MPI_Wait	0	20163840	28564.622	0.000e+00	1.274e-01	89.54	25.52	
MPI_Sendrecv	4	1923840	2244.879	0.000e+00	5.567e-02	7.04	2.01	
MPI_Send	65536	5812670	305.009	1.979e-05	2.608e-02	0.96	0.27	
MPI_Send	131072	684784	184.969	9.775e-06	4.669e-02	0.58	0.17	
MPI_Send	114688	5701788	124.668	1.097e-05	1.906e-02	0.39	0.11	
MPI_Send	81920	6340034	115.228	5.007e-06	1.906e-02	0.36	0.10	
MPI_Allreduce	8	18240	104.719	2.909e-05	1.119e-01	0.33	0.09	
MPI_Allreduce	4	3520	58.210	6.199e-05	9.439e-02	0.18	0.05	
MPI_Irecv	65536	5812670	46.916	0.000e+00	1.311e-02	0.15	0.04	
MPI_Send	163840	334326	24.913	1.812e-05	3.311e-02	0.08	0.02	
MPI_Send	229376	300734	24.025	3.600e-05	1.314e-02	0.08	0.02	
MPI_Barrier	0	1600	22.359	3.669e-04	4.929e-02	0.07	0.02	
MPI_Reduce	8	960	19.395	1.300e-02	4.094e-02	0.06	0.02	
MPI_Scan	8	320	18.274	5.287e-02	9.325e-02	0.06	0.02	

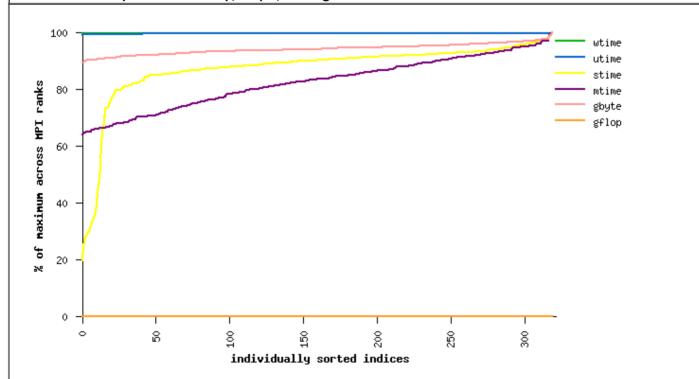
MPI_Bcast	4	10880	11.723	0.000e+00	1.956e-01	0.04	0.01
MPI_Allreduce	24	960	11.521	4.697e-05	3.436e-02	0.04	0.01





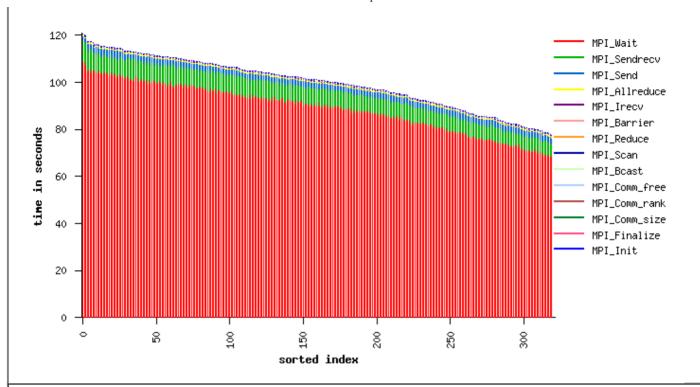
<u>by MPI rank, by MPI time</u>

Load balance by task: memory, flops, timings

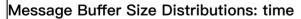


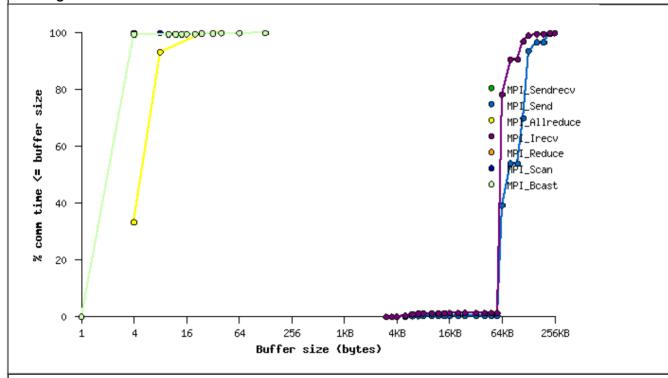
<u>by MPI rank, by MPI time</u>

Communication balance by task (sorted by MPI time)



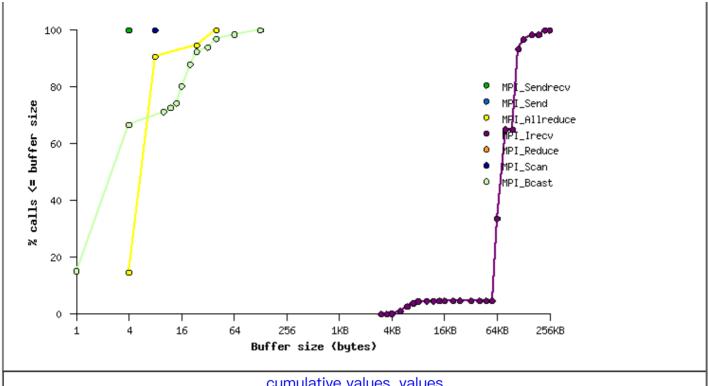
<u>by MPI rank , time detail by MPI time , time detail by rank , call list</u>





cumulative values, values

Message Buffer Size Distributions: Ncalls



cumulative values, values

Communication Topology: point to point data flow

None

data sent, data recv, time spent, map data file map adjacency file

Switch Traffic (volume by node)

None

