5498144

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command: /gpfs/fs0/scratch/l/lcl_uotiscscc/lcl_uotiscsccs1040/didwdidw/2_ipm/../lammps–29Oct20/src/lmp_intel_cpu_intelmpi_O3_IPM –sf intel –in ../inputs/in_sort1250.rhodo –pk intel 0 omp 1 mode double	

codename:	unknown	state:	unknown
username:	lcl_uotiscsccs10unknown	group:	
host:	nia0452.scinet. (x86_64_Linux)	mpi_tasks:	320 on 4 hosts
start:	06/16/21/15:08:51	wallclock:	5.09596e+02 sec
stop:	06/16/21/15:17:21	%comm:	33.146549546111
total memory:	214.729784 gbytes	total gflop/sec:	0
switch(send):	0 gbytes	switch(recv):	0 gbytes

Computation

Event	Count	Pop

Communication

% of MPI Time

Legend:
- MPI_Waitany
- MPI_Wait
- MPI_Allreduce
- MPI_Send
- MPI_Alltoallv
- MPI_Sendrecv
- MPI_Irecv
- MPI_Alltoall
- MPI_Bcast
- MPI_Allgather
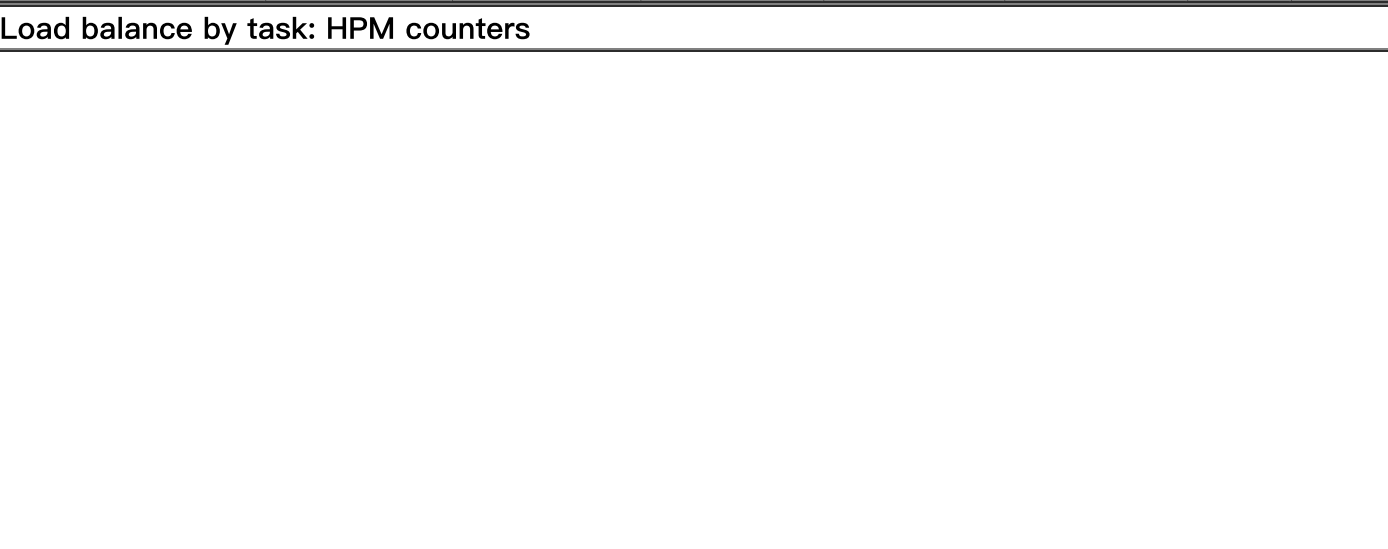- MPI_Barrier
- MPI_Comm_dup
- MPI_Reduce
- MPI_Comm_free
- MPI_Comm_rank
- MPI_Comm_size

HPM Counter Statistics

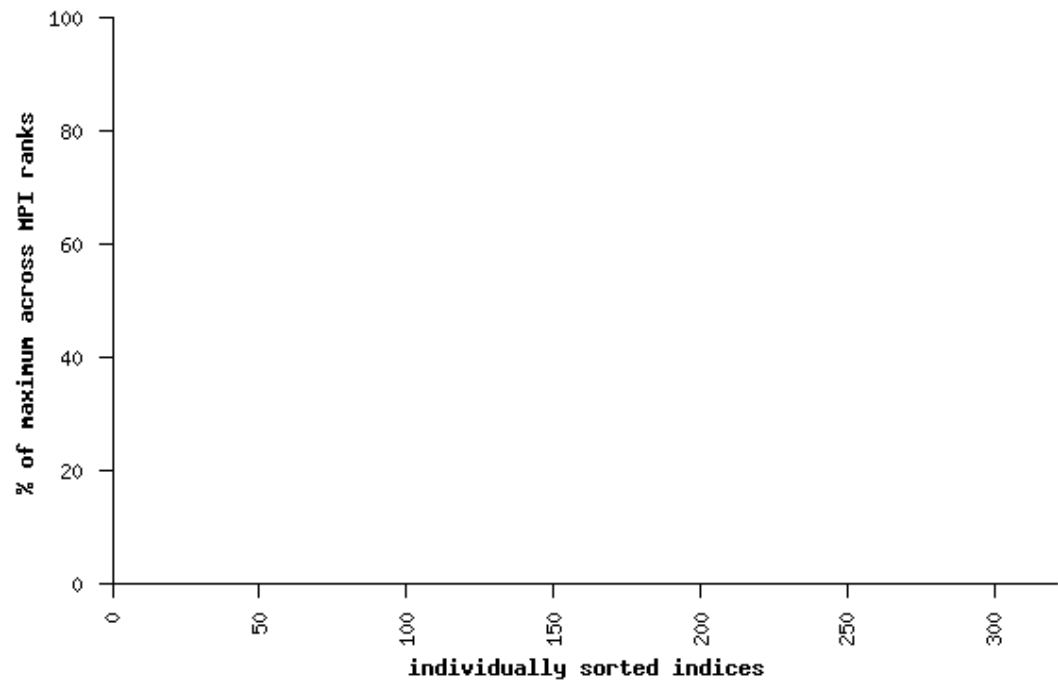| Event	Ntasks	Avg	Min(rank)	Max(rank)

Communication Event Statistics (100.00% detail, −2.9424e−02 error)

	Buffer Size	Ncalls	Total Time	Min Time	Max Time	%MPI	%Wall
MPI_Waitany	0	402679102	25429.865	0.000e+00	9.029e−02	47.05	15.59
MPI_Wait	0	59124480	11128.664	0.000e+00	1.139e−01	20.59	6.82
MPI_Allreduce	4	1946560	5464.948	5.960e−06	8.305e−01	10.11	3.35
MPI_Allreduce	8	1947840	4166.906	7.153e−06	1.231e−01	7.71	2.56
MPI_Send	40960	10213394	1272.070	1.907e−06	2.722e−02	2.35	0.78
MPI_Alltoallv	0	3309	1235.895	6.680e−03	3.407e+00	2.29	0.76
MPI_Sendrecv	4	3022080	825.802	0.000e+00	6.208e−02	1.53	0.51
MPI_Send	114688	11041255	449.568	4.387e−05	5.006e−02	0.83	0.28
MPI_Send	65536	11020800	348.806	2.861e−06	1.061e−02	0.65	0.21
MPI_Send	20480	1920320	320.154	2.861e−06	2.516e−02	0.59	0.20
MPI_Alltoallv	128	301	302.599	6.052e−02	2.427e+00	0.56	0.19
MPI_Alltoall	4	6720	300.235	1.081e−03	4.421e−01	0.56	0.18
MPI_Alltoallv	160	269	298.742	6.044e−02	2.439e+00	0.55	0.18
MPI_Alltoallv	8	445	285.203	8.426e−02	3.369e+00	0.53	0.17

MPI_Send	3072	123999922	229.129	0.000e+00	1.603e−02	0.42	0.14
MPI_Send	32768	4648046	149.411	1.907e−06	1.918e−02	0.28	0.09
MPI_Send	2560	74188332	130.766	0.000e+00	2.705e−02	0.24	0.08
MPI_Send	3584	66843600	117.290	0.000e+00	2.905e−02	0.22	0.07
MPI_Send	4096	47420596	90.378	0.000e+00	1.302e−02	0.17	0.06
MPI_Bcast	4	243840	89.274	0.000e+00	3.166e−01	0.17	0.05
MPI_Irecv	3072	123999922	83.368	0.000e+00	1.167e−02	0.15	0.05
MPI_Alltoallv	192	80	82.456	5.168e−02	2.427e+00	0.15	0.05
MPI_Alltoallv	112	116	77.267	1.309e−02	2.427e+00	0.14	0.05
MPI_Allgather	32	4480	76.125	9.842e−03	3.886e−02	0.14	0.05
MPI_Barrier	0	2880	72.962	1.860e−04	1.926e−01	0.13	0.04
MPI_Comm_dup	0	2240	63.690	1.298e−02	7.373e−02	0.12	0.04
MPI_Send	327680	488347	58.487	3.791e−05	3.489e−03	0.11	0.04
MPI_Irecv	2560	74188332	50.023	0.000e+00	1.412e−02	0.09	0.03
MPI_Send	7168	17975379	49.916	0.000e+00	4.041e−03	0.09	0.03
MPI_Send	8192	15656830	47.586	0.000e+00	2.309e−02	0.09	0.03
MPI_Send	196608	329501	45.699	2.003e−05	5.703e−02	0.08	0.03
MPI_Irecv	40960	10213394	44.424	0.000e+00	1.249e−02	0.08	0.03
MPI_Send	98304	482585	38.139	2.098e−05	1.273e−02	0.07	0.02
MPI_Alltoallv	16	146	34.566	6.567e−02	3.184e+00	0.06	0.02
MPI_Alltoallv	96	124	32.306	4.946e−02	2.419e+00	0.06	0.02
MPI_Send	5120	10594235	30.588	0.000e+00	1.303e−02	0.06	0.02
MPI_Alltoallv	24	563	29.647	1.302e−02	3.081e+00	0.05	0.02
MPI_Alltoallv	32	415	23.048	7.534e−03	8.973e−01	0.04	0.01
MPI_Send	49152	1920320	22.360	4.768e−06	2.392e−02	0.04	0.01
MPI_Irecv	3584	66843600	21.855	0.000e+00	1.620e−02	0.04	0.01
MPI_Send	2048	10030752	20.209	0.000e+00	2.584e−03	0.04	0.01
MPI_Irecv	5120	10594235	19.144	0.000e+00	1.602e−02	0.04	0.01
MPI_Send	1536	9588118	18.745	0.000e+00	2.765e−03	0.03	0.01
MPI_Irecv	65536	11020800	18.271	0.000e+00	3.607e−03	0.03	0.01
MPI_Irecv	114688	11041255	17.856	0.000e+00	2.790e−03	0.03	0.01
MPI_Send	1280	10333123	16.925	0.000e+00	2.763e−03	0.03	0.01
MPI_Send	24576	1920320	16.739	9.537e−07	7.260e−04	0.03	0.01
MPI_Send	163840	173539	16.527	1.216e−05	6.077e−02	0.03	0.01

Load balance by task: HPM counters
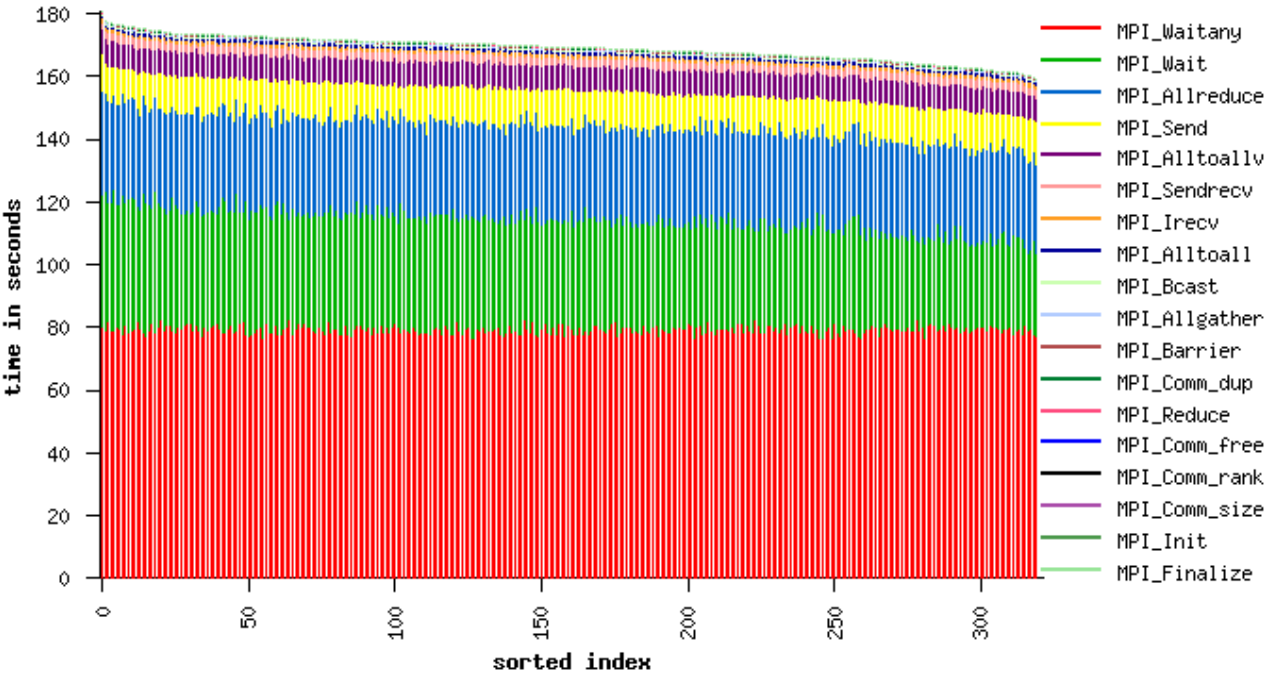
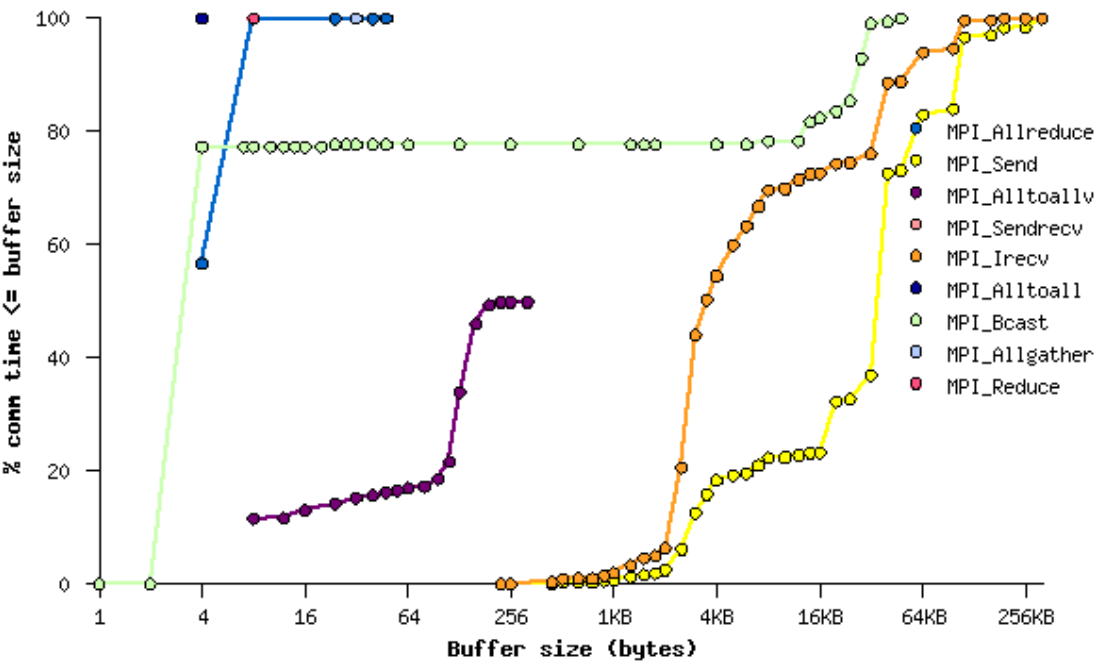by MPI rank, by MPI time

Load balance by task: memory, flops, timings
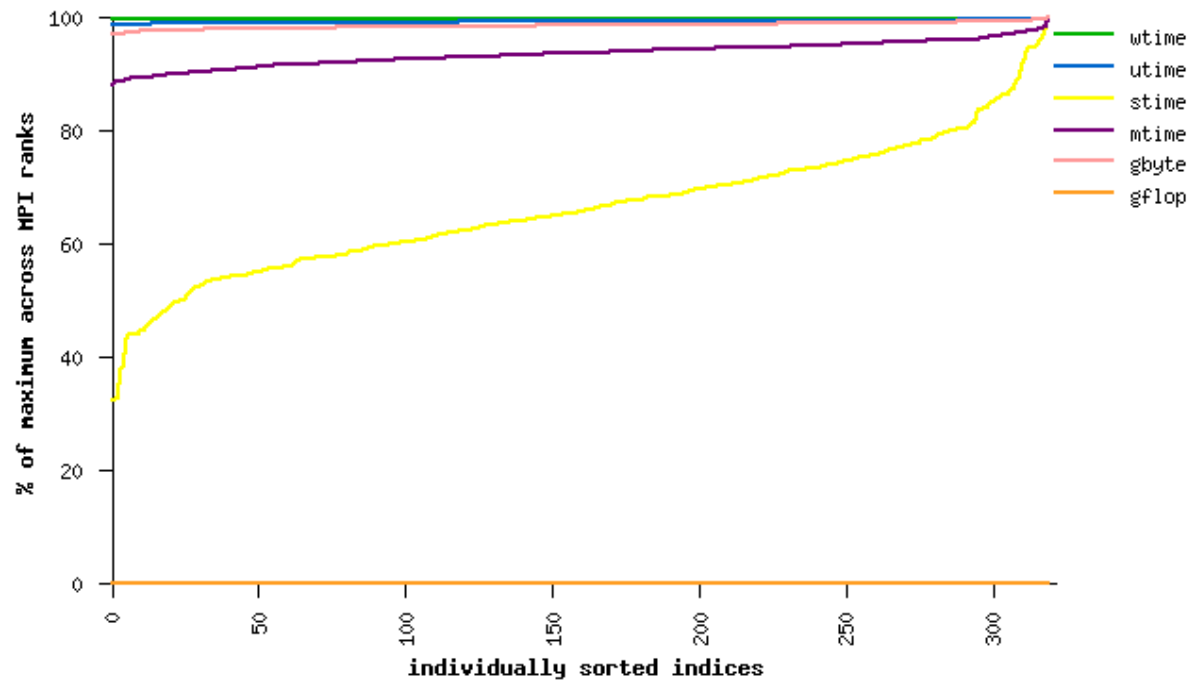
by MPI rank, by MPI time
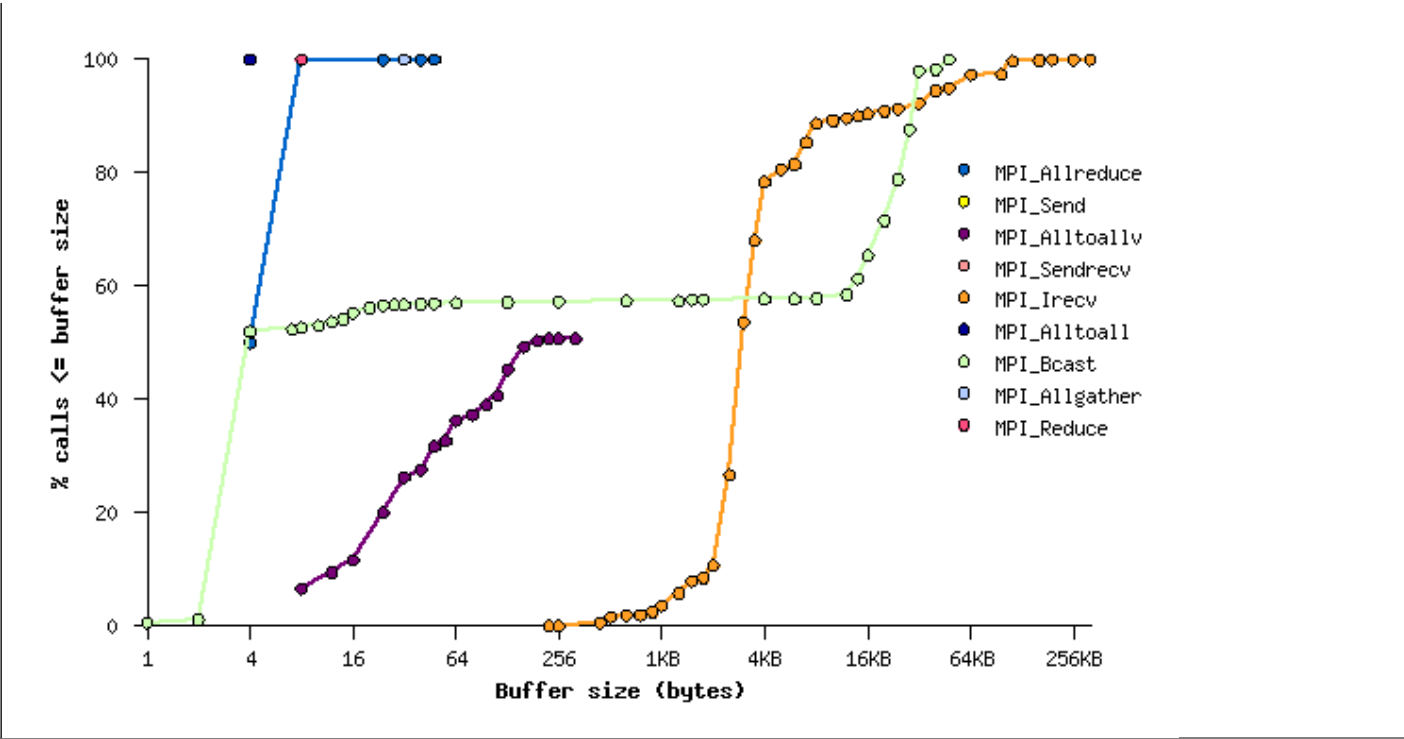
Communication balance by task (sorted by MPI time)

by MPI rank , time detail by MPI time , time detail by rank , call list

Message Buffer Size Distributions: time

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

Memory usage by node