

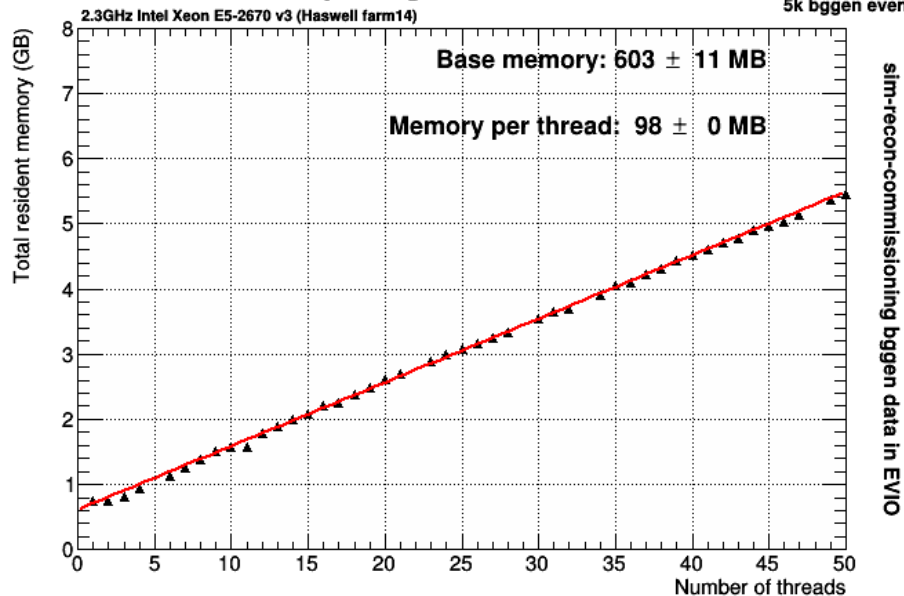
GlueX Code Benchmarking

- Series of tests run to benchmark new farm14 nodes
 - JANA *TestSpeed* plugin for pure CPU bound
 - *bggen* data in both HDDM and EVIO format
 - Read only for testing I/O bound
 - *danarest* for testing full reconstruction
 - Memory usage per thread
- Results not completely understood

Memory Usage

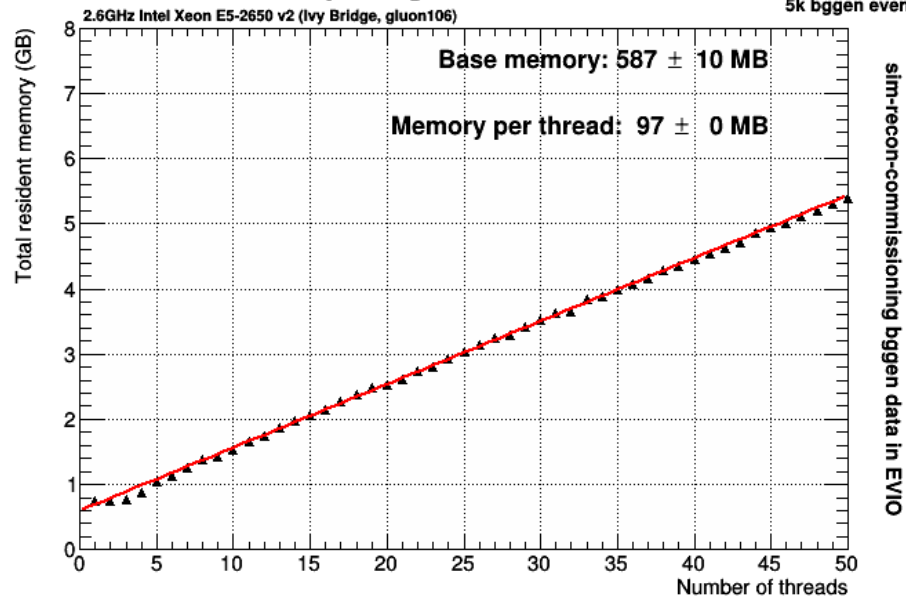
Memory Usage vs. Num. Threads

January 23, 2015 DL
slm-recon: svn 17000, JANA svn 2115
5k bggen events



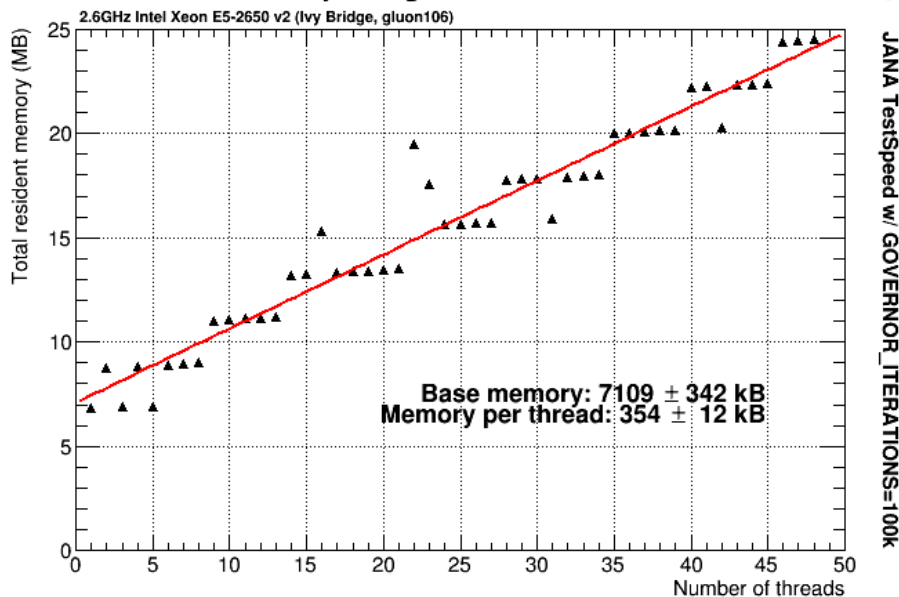
Memory Usage vs. Num. Threads

January 23, 2015 DL
slm-recon: svn 17000, JANA svn 2115
5k bggen events



Memory Usage vs. Num. Threads

January 22, 2015 DL
JANA svn 2115 (pre0.7.3)



Summer 2014 Result

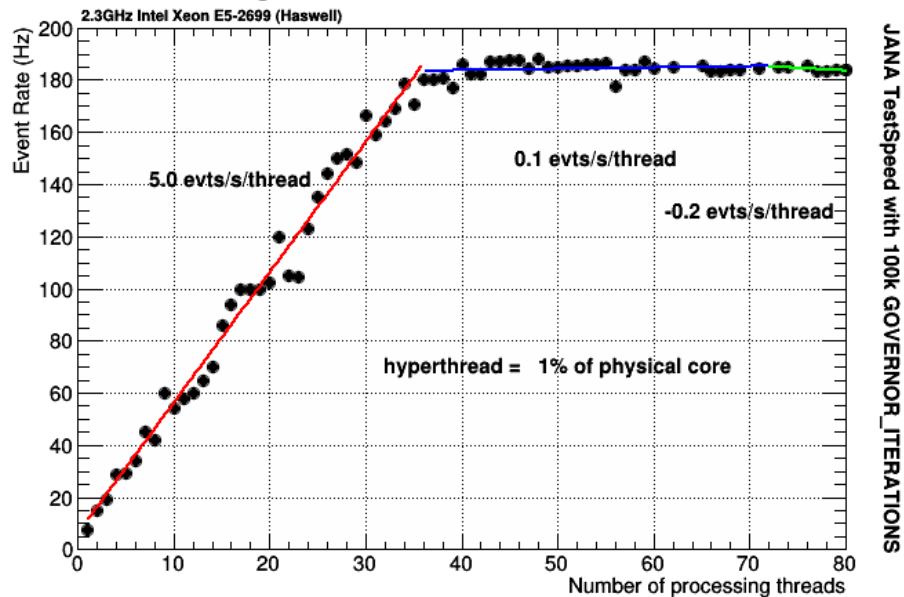
JANA TestSpeed (no I/O)

Haswell (2.3GHz Intel Xeon E5-2699 v3)

Ivy Bridge (2.6GHz Intel Xeon E5-2650 v2)
(gluon cluster)

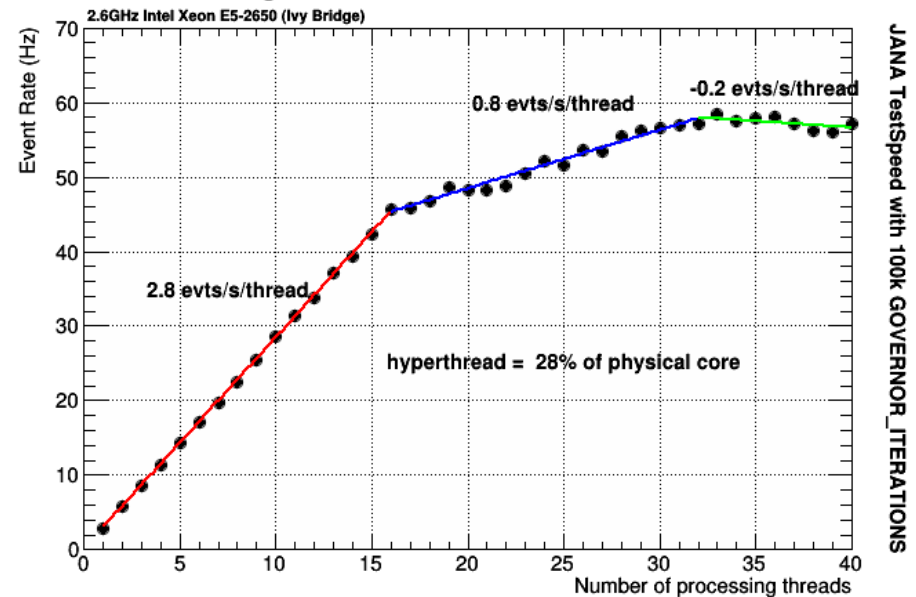
Integrated rate vs. number of threads

July 20, 2014 DL
JANA 0.7.1p3



Integrated rate vs. number of threads

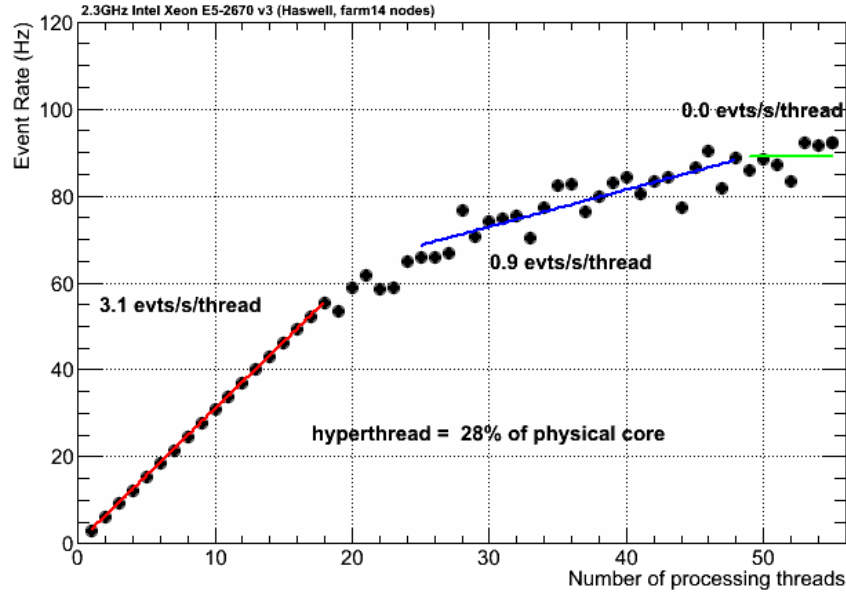
July 16, 2014 DL
JANA 0.7.1p3



Processing Rate vs. Nthreads

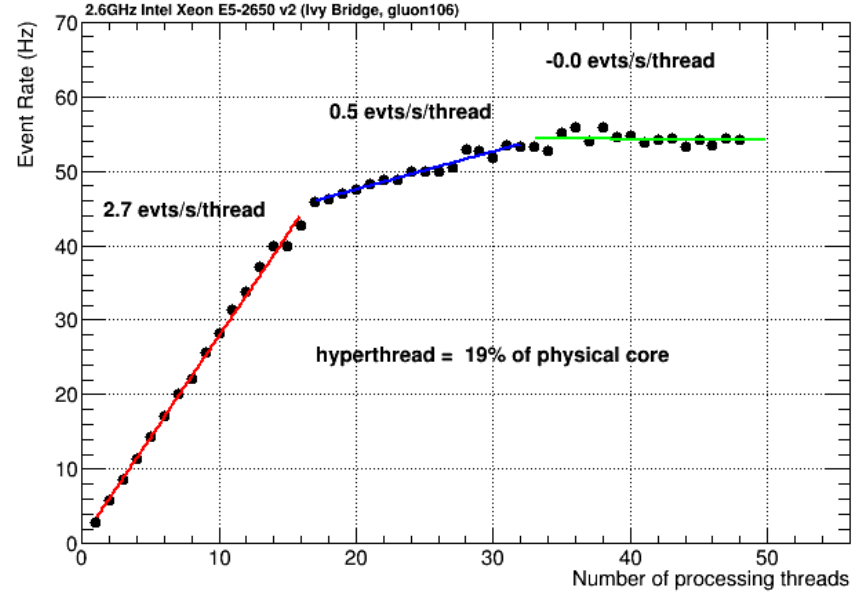
Integrated rate vs. number of threads

January 16, 2015 DL
JANA 0.7.2



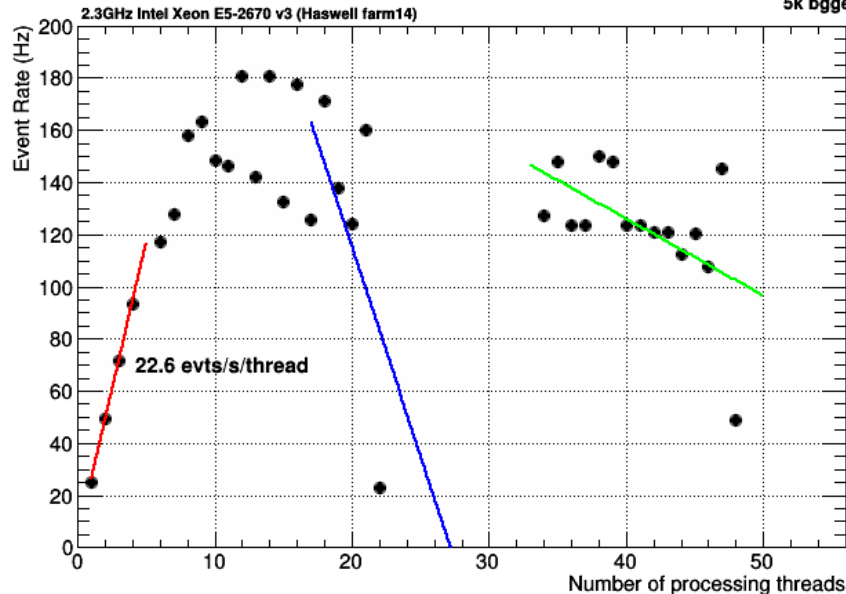
Integrated rate vs. number of threads

January 22, 2015 DL
JANA svn 2115 (pred.7.3)



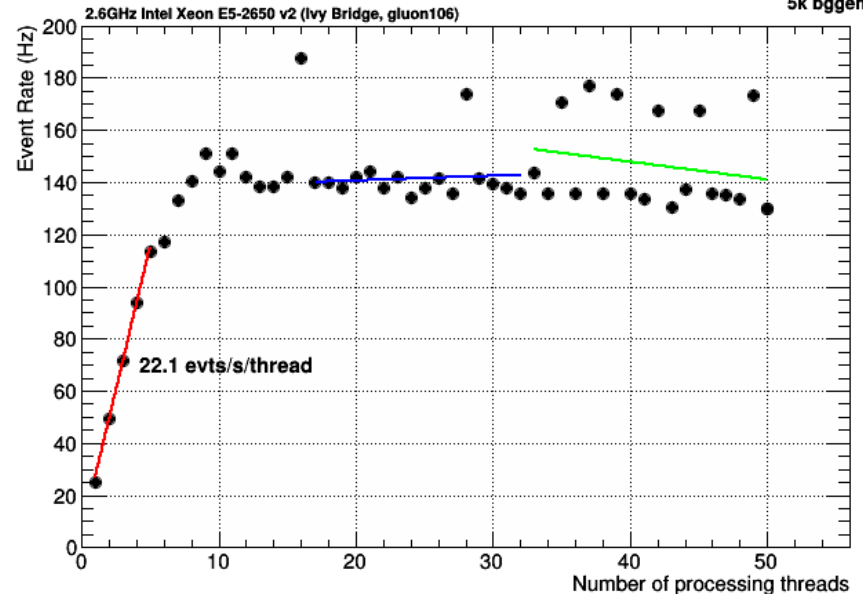
Integrated rate vs. number of threads

January 23, 2015 DL
sim-recon: svn 1700, JANA svn 2115
5k bggen events

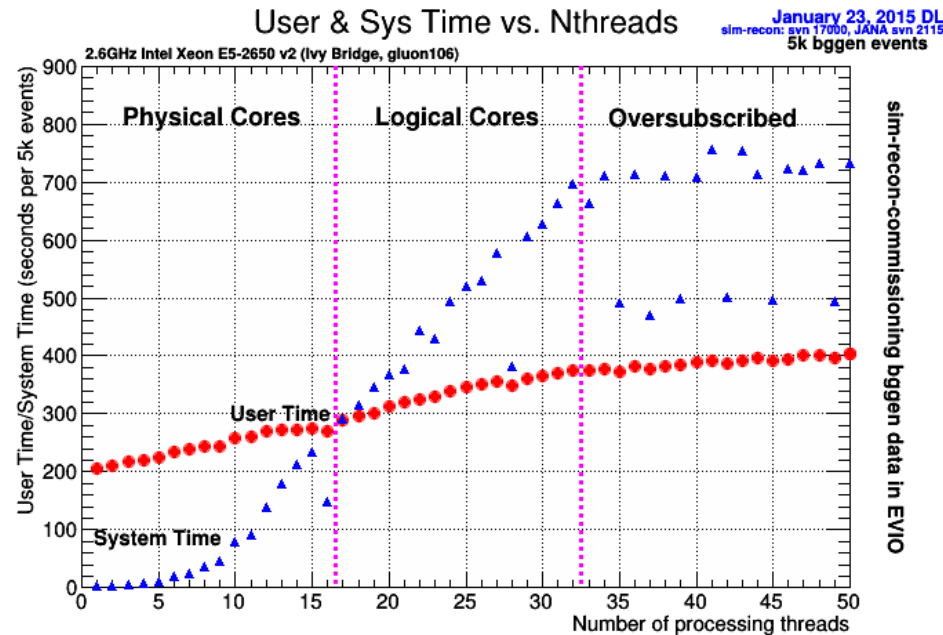
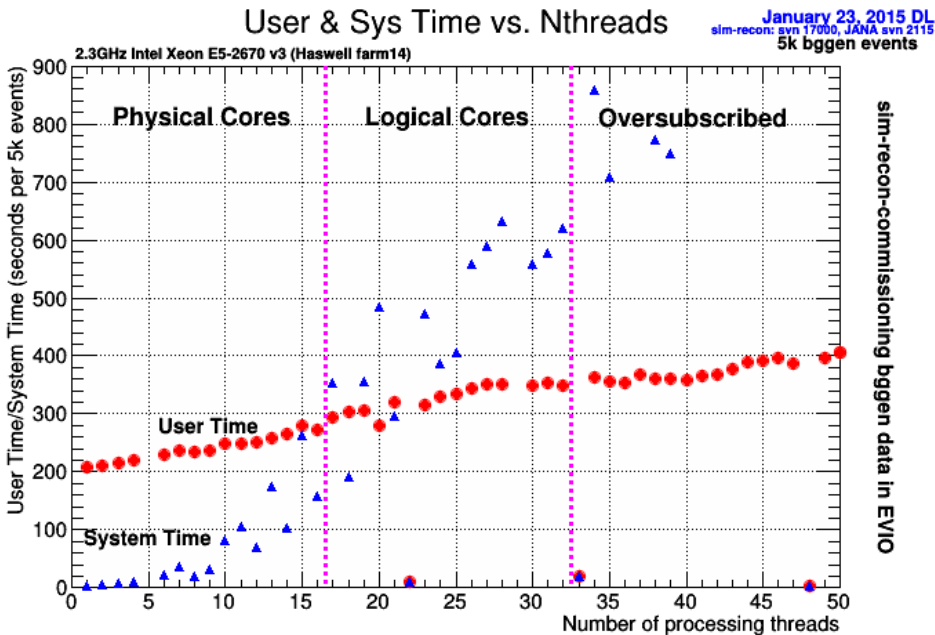
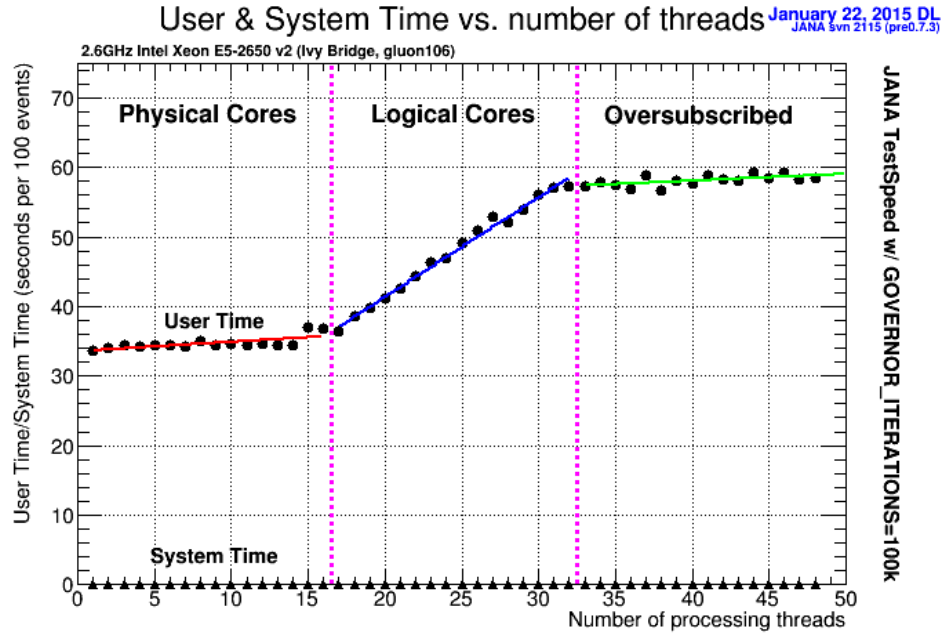


Integrated rate vs. number of threads

January 23, 2015 DL
sim-recon: svn 1700, JANA svn 2115
5k bggen events

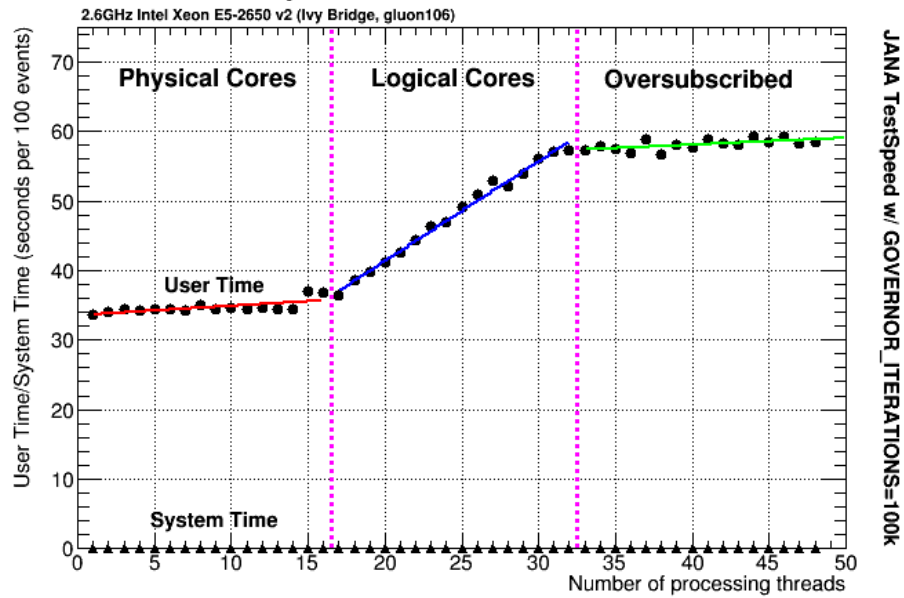


System Time Resource



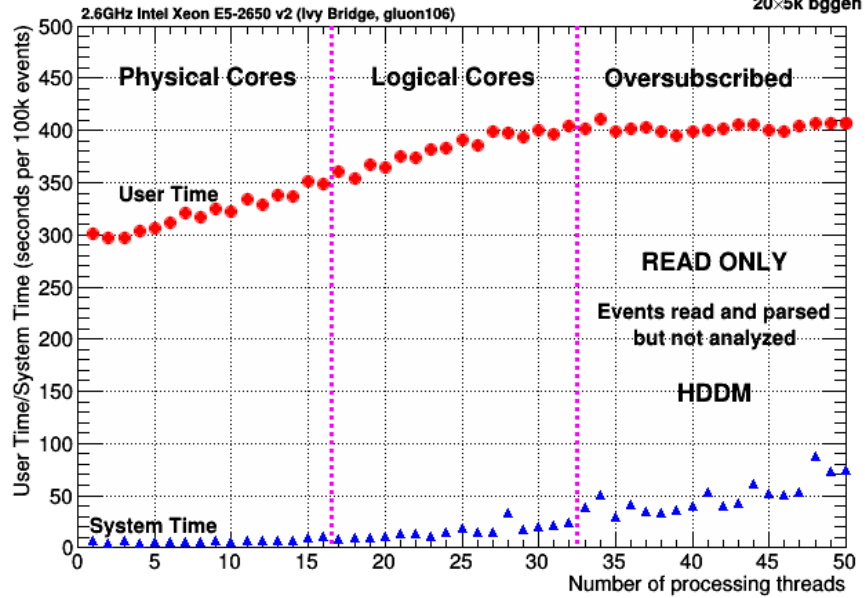
I/O vs. CPU bound

User & System Time vs. number of threads January 22, 2015 DL
JANA svn 2115 (pre0.7.3)



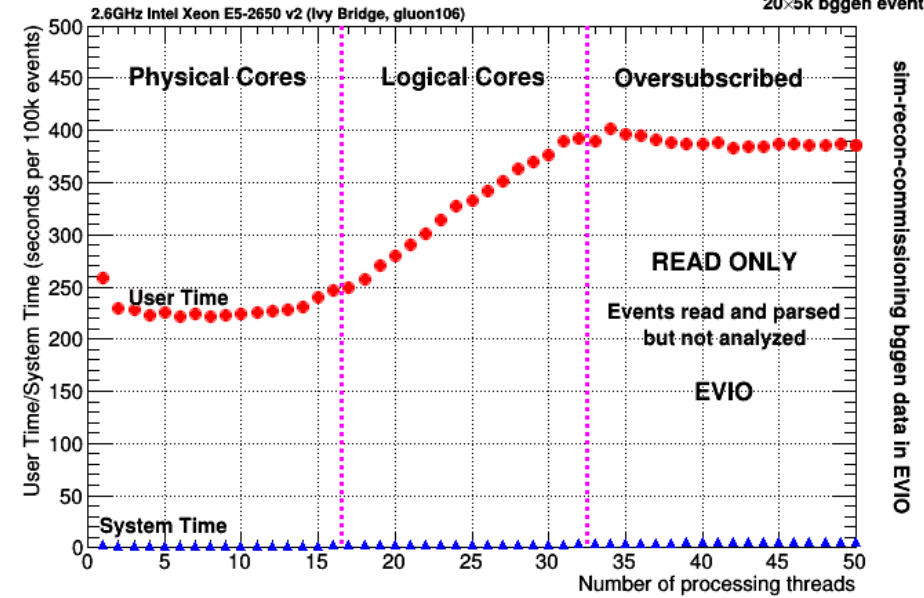
User & Sys Time vs. Nthreads

January 23, 2015 DL
sim-recon: svn 17000, JANA svn 2115
20x5k bggen events



User & Sys Time vs. Nthreads

January 23, 2015 DL
sim-recon: svn 17000, JANA svn 2115
20x5k bggen events

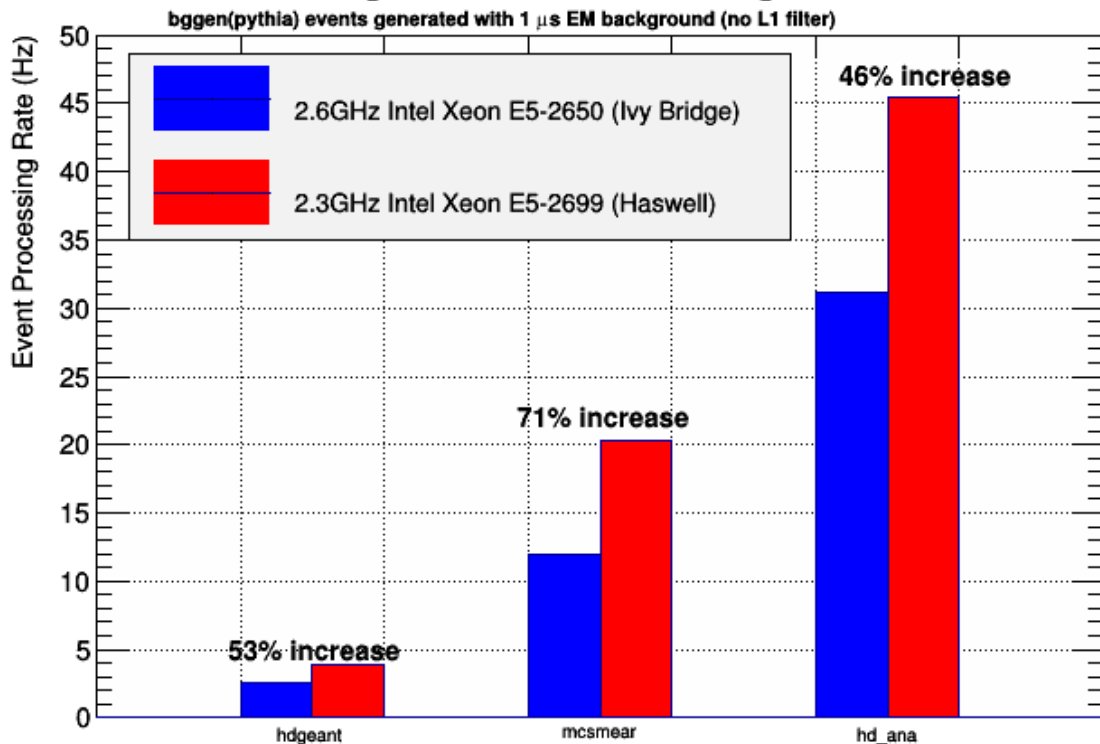


Summer 2014 Result

sim-recon with bggen (no L1 filter)

Single Thread Processing Rates

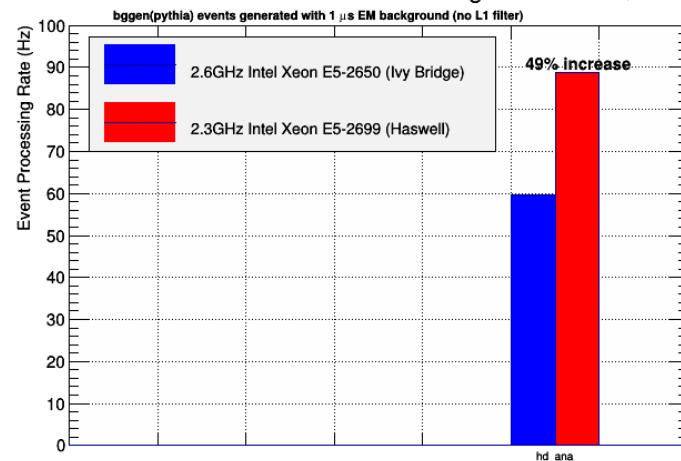
July 20, 2014 DL
svn revision 14114



Scaling issues encountered so no reliable data beyond two threads.

Two Thread Processing Rate

July 20, 2014 DL
svn revision 14114



Preliminary Comparison of farm14 nodes

Single Thread Processing Rates January 16, 2015 DL
svn revision 14114

