Performance of VPIC on Sequoia WILLIAM NYSTROM, HPC-5, Los Alamos National Laboratory — Sequoia is a major DOE computing resource which is characteristic of future resources in that it has many threads per compute node, 64, and the individual processor cores are simpler and less powerful than cores on previous processors like Intel's Sandy Bridge or AMD's Opteron. An effort is in progress to port VPIC[1] to the Blue Gene Q architecture of Sequoia and evaluate its performance. Results of this work will be presented on single node performance of VPIC as well as multi-node scaling.

[1]K. J. Bowers, B. J. Albright, L. Yin, B. Bergen, and T. J. T. Kwan, Phys. Plasmas 15, 055703 (2008)

William Nystrom
HPC-5, Los Alamos National Laboratory

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