INTEL NEWS FACT SHEET

Intel® Xeon Phi™ Third-Party Quotes

Company	Quote	Attribution
Barcelona Supercomputing Center (End User)	"Our sparse linear algebra library greatly benefits from the massive bandwidth of the Intel Xeon Phi processor. Thanks to MKL's cross-platform compatibility we were able to port it in a matter of hours!" "It is great to use the very same Intel's performance tools now for Intel® Xeon Phi™. Vtune and Vector Advisor make the optimization process so easy!" "Large Xeon Phi's vectorial registers along with its massive memory bandwidth is just the perfect combination for finite differences schemes"	Mauricio Hanzich, HPC Software Engineering Group Manager, Case-HPC Software Engineering
CEA (End User)	"CEA is a leading research organization in Europe focused on low-carbon energies, defense and security, information technologies and health technologies. Our scientists are conducting increasingly complex simulations that require bigger machines that run more efficiently. Our goal is to gain a deeper understanding of phenomena using finer resolutions, faster and with greater accuracy. The Intel® Xeon Phi™ processor is at the forefront of CPU architectures poised to open the door to Exascale systems. The introduction of the MCDRAM, the massive number of threads and the compute power coming from the SIMD units make Intel Xeon Phi processors the right solution to begin modernizing our codes and prepare the future."	Didier Juvin, HPC & Numerical Simulation Program Director at CEA/DAM
Kitware (Partner)	"With Intel supported Software Defined Visualization (SDVis) libraries, our flagship visualization products VTK and ParaView can now scale to the next generation supercomputers on the latest Intel platform including systems powered by Intel® Xeon Phi™ Processors. We are already collaborating with DOE labs to deliver large-scale, in situ visualization to Trinity and Cori supercomputers."	Berk Geveci, Senior Director of Scientific Computing
Los Alamos National Laboratory (End User)	"At Los Alamos, we are very excited that OSPRay is integrated with ParaView and we look forward to applying it to our scientific problems of interest on Trinity." Note: Trinity is the next generation supercomputer that is currently being put into production at Los Alamos National Laboratory with Intel® Xeon Phi™ as part of the solution.	Dr. James Ahrens, the Data Science at Scale Team leader of Trinity

Third Party Quotes (Cont.)

Sandia National Laboratories (End User)	"LAMMPS is an established code in the molecular dynamics simulation community with users from a variety of disciplines including materials modeling, biology, and many others. Over the past twenty years, the code base has been refactored and extended with high performing kernels and more complex interatomic and coarse-grained potentials. In partnership with Intel, software optimizations focused on several commonly-used LAMMPS models have enabled simulations on the latest Intel® processors to now run up to 7.6X faster with over 9X the energy efficiency, compared to LAMMPS runs a year ago on previous Intel processors. Furthermore, using a single Intel® Xeon Phi™ processor (codenamed Knights Landing), the optimized LAMMPS code now runs up to 1.95X faster with 2.83X better performance per watt, when compared to two Intel® Xeon® E5v3 processors. These achievements are enabling the LAMMPS user community to overcome barriers in computational modeling, enabling new research with larger simulation sizes and longer timescales."	Steve Plimpton, Distinguished Member of Technical Staff
SGI (Partner)	"Our customers capture great value through understanding large-scale datasets using Intel® Software Defined Visualization (SDVis) libraries, OpenSWR and OSPRay. They are looking forward to its implementation on systems powered by the latest Intel® Xeon Phi™ processors. The combined solution empowers scientists and researchers to make use of in-memory datasets directly, up to 64TB on our SGI® UVTM platform, eliminating the need to transfer data around and the limitations that come with special purposes devices such as GPU-based visualization. Our customers appreciate the speed to gain insight from their data, in situ, in industry standard platforms supporting extreme scale datasets."	Mike Woodacre, Chief Engineer at SGI
UC San Diego and San Diego Supercomputer Center (End User)	"Being part of the IPCC program has been of substantial benefit to our work developing the AMBER Molecular Dynamics Software. Close collaboration with Intel engineers has allowed us to access prototype hardware and explore optimizations that we would not have previously considered. It has allowed us to develop specifically for future Intel architectures which is why the AMBER MD software supports the Xeon Phi hardware on the day of release. We are excited by the potential of Xeon Phi."	Ross C. Walker, Associate Professor
University of Tennessee (End User)	"The Intel® Xeon Phi™ processor is a great step forward and provides awesome performance for molecular simulations with GROMACS. In particular the combination of floating-point performance, memory bandwidth and built-in interconnects makes it a great universal HPC architecture. Moreover, porting to the Intel Xeon Phi processor only requires a simple recompile, and it took us less than a week to hand-tune our kernels for AVX512. For the first time, this will enable us to have a single set of kernels that work both on many core Xeon Phi and future multi-core Xeon processors."	Eric Lindahl, GROMACS Lead Developer