ARM HPC Tools 2017

ARM

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Software needs in the ARM ecosystem

Partners and system vendors

- Rapidly respond to RFPs and benchmarking requests
- Provide a commercially-supported software experience for customers
- Ensure applications compile and run well on current and future silicon

HPC sites and system owners

- Choose the right system for key applications
- Port applications to a new architecture and optimize them
- Research and evaluate future technologies

Two common requirements

- Develop and run on today's hardware
- Explore tomorrow's hardware today

HPC tools portfolio in 2017

ARM HPC Essentials*

Develop and run on today's hardware

C/C++/Fortran Compiler	Performance Libraries	Allinea Forge	Allinea Performance Reports
Linux user space compiler for HPC applications	BLAS, LAPACK and FFT	Multi-node cross-platform profiler and debugger	Cross-platform application performance insight

ARM Architecture Explorer*

Explore tomorrow's architecture today

SVE C/C++/Fortran Compiler	SVE Performance Libraries	Instruction Emulator	Code Advisor
SVE auto-vectorization, inline assembly and ACLE	Hand-written SVE DGEMM/SGEMM kernels.	Run SVE binaries on today's ARMv8-A hardware	Simple actionable advice via dynamic and static analysis

(*) Product names may change prior to launch