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AMD Paves Ease-of-Programming Path to Heterogeneous System Architecture With New APP SDK 2.8 and Unified Developer Tool Suite

New Array of Developer Tool Kits, Suites and Libraries Makes Heterogeneous Compute Programming More Accessible on AMD Platforms

SUNNYVALE, CA -- (Marketwire) -- 12/04/12 -- AMD (NYSE: AMD) today announced availability of the AMD APP SDK 2.8 and the AMD CodeXL unified tool suite to provide developers the tools and resources needed to accelerate applications with AMD accelerated processing units (APUs) and graphics processing units (GPUs). The APP SDK 2.8 and CodeXL tool suite provides access to code samples, white papers, libraries and tools to leverage the processing power of heterogeneous compute with OpenCL™, C++, DirectCompute and more.

"With CodeXL and APP SDK 2.8, our highest performing SDK to date which leaps past the competition in performance on standard benchmarks(1), AMD continues to empower developers with the resources they need for greater performance and power-efficient applications," said Manju Hegde, corporate vice president, Heterogeneous Applications and Developer Solutions, AMD. "From today's ultraportable mobile solutions to the highest performing supercomputers, our latest tools and solutions help developers more easily leverage the power of heterogeneous computing and take greater advantage of the compute capabilities of AMD's processing solutions."

AMD APP SDK 2.8 Featuring AMD's New Template Library, Codename "Bolt"
APP SDK 2.8 includes dozens of new and improved samples for OpenCL, Aparapi and C++ AMP that deliver significantly faster performance than APP SDK 2.7 -- up to 2.3x faster(2) on average in nine key benchmarks. APP SDK 2.8 also includes a preview version of AMD's new open source C++ template library, codename "Bolt." "Bolt" is aimed at making it easier to utilize the inherent performance and power efficiency of heterogeneous computing while reducing lines of code with a single code path for GPU and CPU programming. "'Bolt's' productivity-oriented development environment enables developers to get superior performance on today's heterogeneous compute platforms, and can help increase performance and reduce power consumption with the exact same code on future Heterogeneous System Architecture (HSA) compliant platforms.

For complete details on APP SDK 2.8 features, capabilities and support, along with "Bolt" architectural and how-to details, visit the AMD Developer blog or download APP SDK 2.8 from AMD Developer Central. A member of AMD's technical staff will also provide an

introduction to the powerful capabilities of "Bolt" during a live webinar on Tuesday, Dec. 11. To register, visit: http://bit.ly/StQa4X.

AMD CodeXL Unified Developer Tool Suite
The CodeXL tool suite provides a foundation for software developers and ISVs to enter a new era of parallel programming by harnessing the compute power of AMD's high-performance central processing units (CPUs), GPUs and APUs across a wide array of computing platforms. CodeXL combines new features that enable developers to get the most performance out of AMD processors, including comprehensive GPU debugging, GPU and CPU profiling, static OpenCL kernel analysis and a standalone user interface on Windows® and Linux for enhanced accessibility and navigation. As a result, developers can bring to life solutions with amazingly fast run-times, long battery life and smooth playback for leading software applications.

For further information about CodeXL, visit the CodeXL homepage.

Resources

- Visit AMD Developer Central to download APP SDK 2.8;
- Visit the AMD Developer blog for more details on APP SDK 2.8, "Bolt" and CodeXL;
- Follow news from the AMD team on Twitter at @AMD_Unprocessed or @AMDSoftware.

About AMD
AMD (NYSE: AMD) is a semiconductor design innovator leading the next era of vivid digital experiences with its groundbreaking AMD Accelerated Processing Units (APUs) that power a wide range of computing devices. AMD's server computing products are focused on driving industry-leading Cloud computing and virtualization environments. AMD's superior graphics technologies are found in a variety of solutions ranging from game consoles, PCs to supercomputers. For more information, visit http://www.amd.com.

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(1)Tests conducted at AMD using AMD OpenCL runtime in video driver 9.011 and Intel OpenCL runtime in video driver 9.17.10.2875. A notebook PC with AMD A10-4600M APU with Radeon™ HD 7660D graphics, 2x2GB of DDR-1600 RAM, and Windows® 7 Pro 64-bit, video driver 9.011 achieved 12,641 for Kishonti clBenchmark™ 1.1.2, 64.2 for Rightware Basemark™ CL 1.01, and 340.3 for LuxMark 2.0. A notebook PC with Intel i5-3320M with HD 4000 Graphics, 2x2GB of DDR-1600 RAM, and Windows® 7 Pro 64-bit, video driver 9.17.10.2875 achieved 11,662 for Kishonti clBenchmark™ 1.1.2, 53.2 for Rightware Basemark™ CL 1.01, and 174.9 for LuxMark 2.0. Certain subcomponents of Kishonti clBenchmark™ 1.1.2 are not executable by the Intel i5-3320M, these sub-components are ignored for both Intel- and AMD-based systems.

(2)Tests conducted at AMD using performance optimized code samples from AMD APP SDK 2.8 compared to those from 2.7. On a notebook PC with AMD A10-4600M APU with Radeon™ HD 7660D graphics, 2x2GB of DDR-1600 RAM, and Windows® 7 Pro 64-bit, video driver 9.011, the times to execute the code samples are as follows: AESEncryptDecrypt (.024 seconds for SDK 2.7 vs .005 seconds for SDK 2.8); BinarySearch

(.028 vs .003); BitonicSort (5.36 vs 0.14); RadixSort (.015 vs .011); ScanLargeArrays (.16 vs .08); Histogram (.20 vs .10); HistogramAtomics (.026 vs .025); QuasiRandomSequence (.037 vs .017); and MonteCarloAsian (1.84 vs .85) for an average time of .114 seconds for SDK 2.7 vs .034 seconds for SDK 2.8 across the 9 samples.

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