



NEWS RELEASE

Forte Design Systems Acquires Arithmatica Move Expands Cynthesizer High-Level Synthesis, IP, Patent Portfolio

SAN JOSE, CALIF. — September 28, 2009 — [Forte Design Systems](#) announced today that it has acquired Arithmatica, Ltd., provider of intellectual property (IP) and datapath synthesis based in the United Kingdom, to expand its product offerings and accelerate product development. Terms of the acquisition will not be disclosed.

Forte will continue to develop and market Arithmatica's CellMath™ products, including direct support for CellMath Designer™ (CMD) and support for CellMath Optimizer™ (CMO) through its relationship with Imagination Technologies. It will integrate Arithmatica's patented technology and IP into its Cynthesizer™ SystemC high-level synthesis (HLS) software to enhance quality of results (QoR).

Additionally, Forte will provide an upgrade path for design teams using CellMath Designer directly to Cynthesizer to help them leverage their existing design work.

"Forte remains committed to increasing the abstraction level of hardware design, while at the same time staying firmly connected to the silicon implementation flow," says Sean Dart, president and chief executive officer (CEO) of Forte. "The Arithmatica acquisition gives us both the tools and the expertise to expand our product offering to achieve circuit quality that has not been possible before."

Adds Dan Ganousis, Arithmatica's president and CEO: "Arithmatica has been focused on allowing design teams to build better datapath blocks. As a part of Forte, Arithmatica-based design teams will have a clear growth path to SystemC synthesis and will be able to utilize the high-quality datapath blocks they have built using CellMath Designer."

Currently, Forte has engineering, sales and support offices in the United States, Europe, Japan and Korea. Its worldwide presence will increase with the addition of an engineering group in England, a design services team and a U.S. sales team led by Ganousis. The combined company has customers in all major regions of the world, including North America, Europe, Korea, Japan and Taiwan.

Standalone and Integrated Datapath Synthesis

Design teams use CellMath Designer datapath synthesis to reduce area, improve performance and lower power consumption for datapath-intensive design blocks. Using CellMath IP, CellMath Designer combines advanced synthesis techniques with datapath architectures to reduce circuit area and power and for circuit speeds unachievable through other means. CellMath Designer works in conjunction with general logic synthesis products and utilizes existing register-transfer

level (RTL) code, synthesis scripts and technology libraries to allow designers to quickly improve results.

Cynthesizer today supports both control- and datapath-intensive designs from a single SystemC source without proprietary language extensions. For datapath designs, Forte's patented DpOpt technology will be enhanced with CellMath and Arithmatica IP. Designers can designate specific portions of their design to be synthesized as custom datapath components through the datapath synthesizer. In addition, Cynthesizer can import custom parts built with CellMath Designer, automatically recognize patterns and find other opportunities to build additional custom parts. The creation and use of these datapath parts allows Cynthesizer to produce smaller, faster RTL designs.

"Imagination Technologies has used CellMath in several of our market-dominating POWERVR graphics IP cores," comments Martin Ashton, Imagination Technologies' vice president of POWERVR. "We look forward to continuing our relationship with Forte to utilize CellMath tools in future generations of our technologies."

"Digital Media Professionals has used CellMath to produce high-quality, high-performance 3D and 2D vector graphics processor IP since 2005," remarks Tatsuo Yamamoto, president and CEO of Digital Media Professionals (DMP). "As design complexity and time-to-market pressures grow, we are encouraged by Forte's vision to integrate the CellMath products and IP into its Cynthesizer SystemC synthesis product. Together, these products should help IP providers like DMP accelerate time to market and meet their future design targets."

"Producing the best possible results in the shortest amount of time is critical to succeed in these challenging times," notes Raimund Soenning, manager, Hardware Design, Fujitsu Microelectronics Europe. "Forte's Cynthesizer was instrumental in the recent success of our OpenGL ES2.0 graphics processing unit. We expect the inclusion of the CellMath products to further improve design quality and shorten time to market."

IP for Reduced Risk, Improved Time to Market

The acquisition expands Forte's IP portfolio adding an array of floating point, integer and application IP. The CellMath Floating Point IP library contains a set of highly optimized floating point architectures that can be configured for the needed bit widths or rounding modes. Floating point implementations can be configured with IEEE precision or with reduced precision for graphics or other applications where smaller, faster implementations are required. Available functions include adders, multipliers, dividers, square root, dot-product, reciprocal square root, exponential and logarithm. The library also contains multi-function parts that can produce any of these floating point functions using shared resources to reduce the combined area.

Forte's library now contains integer multiply-accumulate (MAC) functions licensed by several companies, including Xilinx for use in its Virtex[®] family of field programmable gate arrays (FPGAs). "Arithmatica's CellMath IP has been an integral element of the DSP 48 Slice in our flagship Virtex FPGA platforms for three product generations," says Dave Tokic, senior director, Partner Ecosystems and Alliances at Xilinx. "Today's news affirms the strategic value of the Arithmatica's patented technology and IP for today's system-level designers."

Other IP includes read-channel IP, based on patented double-detector Viterbi decoder technology, for use in increasing capacity in storage applications.

About Forte Design Systems

Forte Design Systems is a leading provider of software products that enable design at a higher level of abstraction and improve design results. Its innovative synthesis technologies and intellectual property offerings allow design teams creating complex electronic chips and systems to reduce their overall design and verification time. More than half of the top 20 worldwide semiconductor companies use Forte's products in production today for ASIC, SoC and FPGA design. Forte is headquartered in San Jose, Calif., with additional offices in England, Japan, Korea, and the United States. For more information, visit www.ForteDS.com.

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