

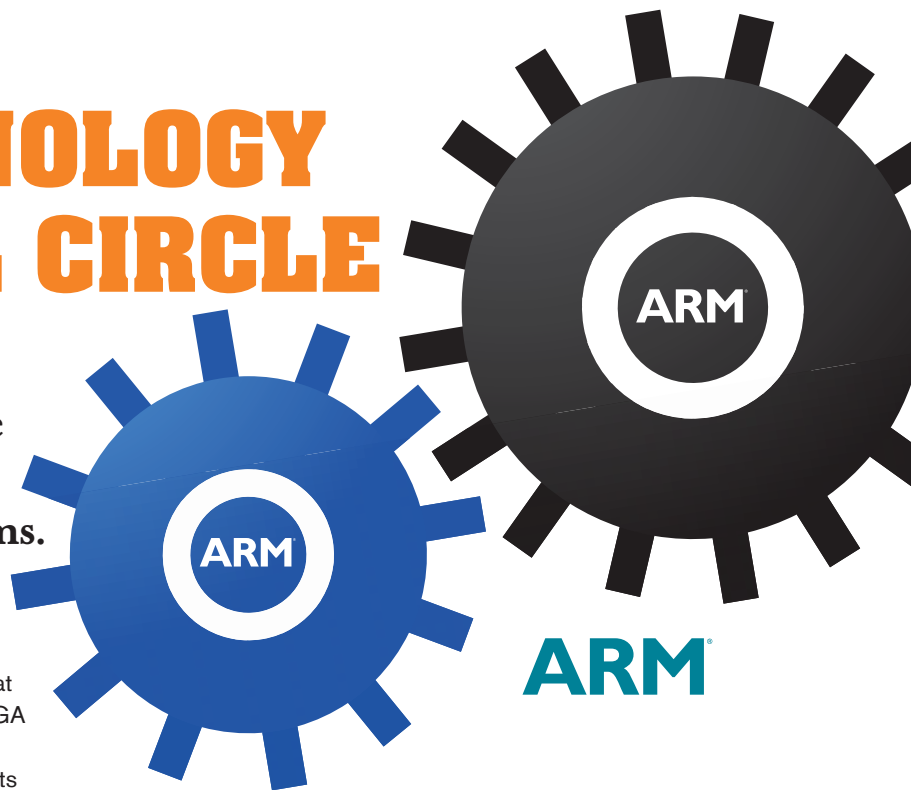
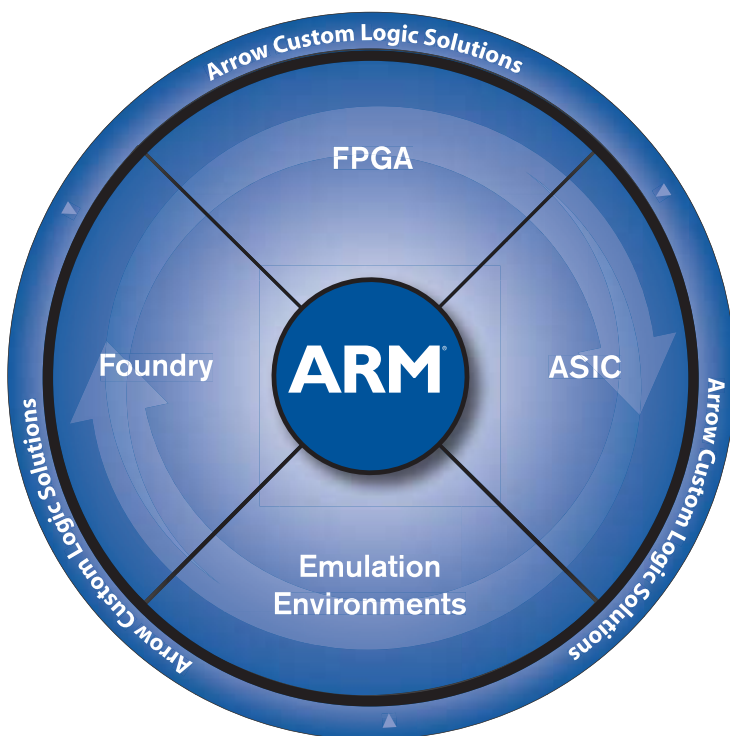
ARM® TECHNOLOGY MOVES FULL CIRCLE

With Arrow keeping the wheels in motion, ARM solutions move easily across FPGA, ASIC, and emulation environment platforms.

Arrow Reaches Out Its “ARMs”

Over the last 24 years, the Custom Logic Solutions group at Arrow Electronics has provided continuous support for FPGA technologies and over 1,000 ASIC designs, including the integration of ARM® cores. Recently, Arrow has expanded its already strong relationship with ARM in order to develop a new design flow. This improved flow allows for the seamless integration of ARM's industry-leading embedded processors across FPGA, ASIC, and foundry technologies, as well as emulation platforms.

The mission of Arrow's Custom Logic Solutions group is to partner with industry leaders in custom logic technologies in order to meet specific customer needs. By providing the right combination of vendor technology, design services, and intellectual property (IP), that mission is accomplished over and over again. Solutions range from small FPGAs and structured ASICs to highly complex standard cells. IP from our partners, as well as any third-party IP technology, is also incorporated, rounding out the process.



Arrow, ARM, and Altera: Creating Complete Solutions

In order to broaden their relationship, Arrow and ARM have worked together to interweave custom chip design with ARM industry-standard processors and the corresponding intellectual property from over a dozen major silicon suppliers. As the only distributor and approved training center for ARM tools in North America, Arrow now brings customization to the ARM standard product family. This gives customers for both companies access to the many solutions that have materialized as a result of this winning relationship.

Where Arrow, Altera, and ARM meet, you will now find the capability to integrate one of ARM's core processors into an Altera device. Working closely with both ARM and Altera, Arrow's Custom Logic Solutions group is the first to engineer a process and methodology that take advantage of Altera's higher-density and higher-performance Stratix® family of FPGAs to integrate ARM Cortex™, ARM7™, and ARM9E™ processor cores. For customers looking for a lower-cost, lower-power, functionally-equivalent, pin-compatible solution, Altera and Arrow can utilize Altera's HardCopy™ methodology to seamlessly integrate the ARM-based FPGA into a HardCopy device. This development widens Arrow's support of ASIC and foundry technologies by enabling prototyping and production of the customer's ARM-based design in an FPGA. The combination of ARM technology and Arrow design services continues to provide a marriage of flexibility and decreased time to market along with distinctive solutions for customers who are eager to use mainstream ARM processors in their Stratix and HardCopy designs.

Same Code Across All Technologies

Another development resulting from a close relationship with ARM is Arrow's ability to allow system-on-a-chip designers to implement the same ARM processor code into Altera FPGAs, Altera HardCopy ASICs, or standard-cell ASICs. Arrow's Custom

Logic Solutions Group configures the ARM IP to the system requirements and then uses the Altera Stratix FPGA Advanced Encryption System (AES) capability to instantiate the ARM IP into a customer prototype or production design while still protecting its security. Arrow's agreement with ARM allows ARM technology to be implemented at a lower cost and to a wider customer base than was previously available. The design services and IP access for incorporating the ARM technology into Stratix and HardCopy devices are already available in North America from Arrow's Custom Logic Solutions group.

Arrow's Custom Logic Solutions Group and ARM Technology, the Core of Big Industry Changes

Arrow's Custom Logic Solutions group has a track record of working with customers to successfully integrate both single and multiple instantiations of the ARM7 and ARM9 cores. In addition, this comprehensive relationship with ARM allows Arrow to include the Cortex M1 as part of its already broad range of intellectual property. With the ability to port custom ARM implementation across silicon technologies, Arrow customers can now uphold their investments while taking advantage of business model flexibility.

With such an extensive client base, it is crucial that Arrow continually provide an increasing number of innovative options. The new products from ARM and Altera allow Arrow to effectively integrate ARM technology into an FPGA, something that was previously not possible because of utilization and performance issues. With this integration, the user now has a code-compatible solution that can start with an FPGA and then bridge into a custom ASIC or Customer Owned Tooling. With this relationship as the foundation for so many new solutions, Arrow is continuing in a tradition of forming valuable partnerships that allow innovative tools to reach the hands of its customers.

For more information on Arrow's Custom Logic Solutions group, Arrow's ARM technologies, or additional FPGA and ASIC developments, email asic@arrow.com, call 800-933-9953, or go to www.arrowasic.com.



Arrow Custom Logic Solutions Offers Ways to Streamline ARM®-Based ASIC Implementation

Presentation delivered at the ARM Developers' Conference shows you how to get the most out of System-On-a-Chip solutions

Arrow Custom Logic Solutions recently presented at the ARM® Developers' Conference, an ideal event for ARM Partners to showcase the hottest new software applications to the latest tools, methodologies, and OS developments. Arrow's session was dedicated to providing platform developers the knowledge needed to accelerate development and mitigate risk by leveraging an ARM subsystem implementation through the entire development process.

The presentation started with a discussion about the ARM Code Translation Module, followed by a segment on FPGA implementation for hardware prototyping, and finally, time was devoted to production in both an FPGA and an ASIC. Customers learned how to maintain an identical ARM subsystem, including a processor core, bus architecture, peripherals, memories, and memory maps, which provided some much needed consistency.



ARM

Attendees left with knowledge about the tools needed for more complete software development, and the presentation provided a means to test earlier in the system development process. Customers walked away with the ability to decrease hardware-, software-, and system-level debug and the resulting re-work often attributed to differences in implementation.

To view the presentation Arrow delivered at the ARM Developers' Conference, visit www.arrownac.com/resource. For more information on Arrow's ARM solutions, visit www.arrownac.com/arm. To inquire about Arrow Custom Logic Solutions, email asic@arrow.com.