



News Release  
Waltham, MA,

## **Introducing Carbon Design Systems**

*EDA company formed to solve the system validation problem*

**WALTHAM, MA, September 2, 2003**, Carbon Design Systems announced today that it is delivering software products that enable system validation of hardware and software in an enterprise-wide environment. For the first time, critical software drivers, firmware, and diagnostics runs at KHz execution speed on the 'golden' RTL hardware model with cycle and register accuracy. This enables system and customer validation to occur much earlier than traditional methods.

The Company also announced that it has raised over \$5 million in funding from Boston-based Flagship Ventures and Commonwealth Capital to commercialize its validation technology. The key executive team spearheading the company includes Stephen Butler, President and CEO; Kevin Hotaling, VP Worldwide Sales; and Bill Neifert, CTO. The company was founded in April 2002.

"We are excited about the progress Carbon has made over the last year in assembling a stellar team and capturing early revenue," denoted Steve Ricci, Managing Director and Vice Chairman of Flagship Ventures. "With the explosion in chip software content and gate counts, Carbon is uniquely positioned to address an industry wide problem in a largely untapped market." Carbon's first products target the pre-silicon system validation market, where today, systems and semiconductor companies spend more than \$2B annually on a variety of approaches. These approaches include custom software models, FPGA breadboards, emulation, and hardware-assisted cosimulation.

The limitations imposed by these methods model accuracy, high cost of ownership, lack of enterprise deployment and no customer access have severely limited their widespread use. Industry Benefit from a Unified Environment

"Using Carbon's unified environment, hardware, software, and customer teams can work on a common model," remarked Steve Butler, president and chief executive officer of Carbon. "This eliminates the cost and risk associated with custom model development and the massive cost of maintaining multiple validation tracks. The industry standard for silicon implementation RTL can now be used for enterprise-wide validation."

Carbon's new approach enables system validation to be in parallel with the hardware development flow, allowing product schedules to be cut by 50% or more. With validation starting as early as the first available RTL, problems are found and resolved before fabrication. Risk is minimized by utilizing a pre-silicon validation strategy that verifies critical foundation software firmware, drivers, and diagnostics executing directly on the 'golden' hardware model.

### **Initial Market Penetration**

Boding well for its utility across large market verticals, Carbon has captured its first customer wins and generated revenue across diverse applications including: networking, DSP,

processors, storage systems, graphics, and chip sets. "System and semiconductor firms need to adopt an approach where software, hardware, and customers are joined at the hip. The validation phase ultimately determines whether or not the product makes it to market on time and ramps revenue. The Carbon technology is the first to pull off validation unification," said Allan Wallack, Carbon Board member and former CEO and president of Spring Tide Networks, Synernetics and Chrysalis Symbolic Design.

### **Company Executives**

Carbon's executive team has 150 years of experience at EDA verification companies such as C Level Design, Ikos, Quickturn Design Systems, SpeedSim and Viewlogic Systems.

Steve Butler was most recently CEO of Segue Software, a public company that pioneered web testing and performance management. He was formerly CEO of TriQuest Design Automation, and Sr. VP of Sales and Marketing at Quickturn Design Systems. Steve has a BS in Computer Engineering from the University of Rhode Island. Founder Kevin Hotaling was most recently Director of Sales at C Level Design. He previously held senior sales positions at Quickturn and Toshiba. Kevin holds a BSEE from the Rochester Institute of Technology.

Bill Neifert is a Carbon Founder and its CTO. His last position was at C Level Design, where he was Applications Manager. He has a BS and MS in Computer Engineering from Boston University. Josh Marantz, Carbon's VP of Engineering was most recently the Director of Software Engineering at Ikos Systems. Josh has BS and MS degrees in Electrical Engineering and Computer Engineering from the Massachusetts Institute of Technology.

Andy Ladd, Carbon's Director of Product Deployment was Director of Application Engineering and Consulting Services for the Advanced Simulation Group at Quickturn. Andy holds a MS in Computer Engineering from the University of Michigan and a BS in Computer Engineering from the University of Illinois.

### **About Carbon**

Carbon is delivering software products that enable validation of hardware and software in an enterprise-wide environment. For the first time, critical software drivers, firmware, and diagnostics runs at KHz execution speed on the 'golden' RTL hardware model with cycle and register accuracy. This enables system and customer validation to occur much earlier than traditional methods. Carbon Design Systems, Inc. is privately held and funded by Flagship Ventures and Commonwealth Capital. Corporate headquarters is located at 375 Totten Pond Road, Suite 200, Waltham, MA. 02451. Telephone: 781.890.1500, Facsimile: 781.890.1711, Email: [info@carbondesignsystems.com](mailto:info@carbondesignsystems.com), Website: [www.carbondesignsystems.com](http://www.carbondesignsystems.com)

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