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News Release

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Mentor Graphics Announces New Version of Open ODB++ Intelligent Product Model for PCB Manufacturing

WILSONVILLE, Ore., Sept. 10, 2015 — Mentor Graphics Corporation (NASDAQ: MENT) today announced its newest version of the industry-leading ODB++ intelligent product model, a single and open data structure for transferring printed circuit board (PCB) designs into data for fabrication, assembly and test. The version 8.1 of the ODB++ product model format provides a unique virtual documentation capability which seamlessly translates all data files, drawings, and documents from PCB design through the manufacturing flow.

This open product model format eliminates the need to create and validate disparate documentation content, supporting all electronic design automation (EDA) tool flows. Users of the new ODB++ version will be able to share all the necessary manufacturing instructions as electronic data, making new product introduction (NPI) more efficient for all partners in the supply chain.

The idea behind virtual documentation content is to replace a disparate set of drawings, documents and instructions with data elements that allow the recipient tool to automate the planning and execution of the manufacturing process preparation actions. An example would be to define the soldermask finish color within the ODB++ product model so that a PCB fabricator can automatically generate the process, material and routing instructions for that individual factory.

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The ODB++ product model also includes support for EDA-based design net connectivity shorts. In many designs, one or more nets are intentionally shorted into a single net; the ODB++ product model now carries that net attribute so that all downstream processes can be streamlined and automated. The lack of such net characterization has been a limitation of existing data formats, resulting in wasted efforts between design and manufacturing.

Additionally, content for rigid-flex buildup zones to define regions within the basic stack-up (either unique or within the same region) on the board can be carried forward into analysis and in the actual material-based stack-up definition. This feature delivers accurate impedance calculations, using tools such as the Frontline InStack for this capability. By accurately identifying the physical boundary of different stack-up areas for a rigid-flex circuit, the correct DFM rules can be applied automatically and rigid-flex circuit manufacturers can easily and accurately calculate the impedance values for the circuit using their choice of materials.

Supporting All Intelligent Product Model Formats

Mentor Graphics and the Valor Division have a proven legacy regarding the lean NPI hand-off from design to manufacturing, including stewardship of the ODB++ product model. A new format known as the IPC-2581 standard has emerged for organizing and conveying PCB designs from CAD tools to CAM systems for fabrication and assembly. Mentor is extending its support to the IPC-2581 Consortium and accompanying format standardization efforts.

“Mentor is the market leader for PCB design software and provides a best-in-class solution for NPI. With our latest ODB++ intelligent product model format, we now offer customers a complete and open design-through-manufacturing ecosystem,” stated A.J. Incorvaia, vice president and general manager of Mentor Graphics Systems Design Division. “Our mission is to provide our customers with the best tools and technologies to increase overall product quality and productivity. This includes support for ODB++

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and IPC-2581, giving our customers a choice in data exchange formats for hand-off to manufacturing.”

“I am very pleased that Mentor Graphics has chosen to participate in the IPC-2581 consortium. Both Mentor’s successful ODB++ experiences and the successes of the IPC-2581 consortium make a winning combination in our country’s efforts to optimize the design-to-manufacturing ecosystem. I look forward to witnessing the progress of this exciting and challenging effort.” Gary Ferrari, technical support director, FTG Circuits.

Most Widely Adopted Data Format Worldwide

With over 5,000 global members and over 60 partners to implement and develop the ODB++ product model format as the de facto standard, it is supported by all computer aided manufacturing (CAM) systems sold over the past ten years. A lean NPI process encompasses DFM-validated (clean) product model transfer between tools in the design-to-manufacturing ecosystem – it’s not just about a data format. Around 80% of all boards used in the world are Valor® ODB++ compliant because of alignment within the ecosystem. The ODB++ Solutions Alliance was developed for the PCB manufacturing implementers and supporters, offering free software tools, specifications, documentation, and forums for users. Additional information on the ODB++ intelligent product model format can be found at: <http://www.odb-sa.com/resources/>

About Mentor Graphics

Mentor Graphics Corporation (NASDAQ: MENT) is a world leader in electronic hardware and software design solutions, providing products, consulting services and award-winning support for the world’s most successful electronic, semiconductor and systems companies. Established in 1981, the company reported revenues in excess of \$1.24 billion. Corporate headquarters are located at 8005 S.W. Boeckman Road, Wilsonville, Oregon 97070-7777. World Wide Web site: <http://www.mentor.com/>.

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