



## FOR IMMEDIATE RELEASE

## News Release

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### **Mentor Graphics Calibre Auto-Waiver Implemented by TowerJazz to Reduce Tapeout Cycle Time**

**WILSONVILLE, Ore., May 20, 2015**—Mentor Graphics Corporation (NASDAQ: MENT) today announced that specialty foundry TowerJazz has adopted the [Calibre® Auto-Waivers™](#) product to manage foundry design rule waivers associated with embedded IP in its customers' designs. Automated waiver management significantly reduces the time and effort spent reviewing design rule violations so that designs can get to tapeout faster, while preventing accidental escapes of legitimate design rule violations that could impact yield. Mentor and TowerJazz will demonstrate the application of Calibre Auto-Waivers in Mentor's booth at the upcoming [Design Automation Conference](#).

All foundries have a set of design rules that must be followed by any company submitting designs for manufacture. Frequently, IP suppliers and foundries have agreements to waive a certain design rule check on a particular block of IP. Some waivers are agreed upon during the design phase of an IP and some are new waivers to a silicon-proven IP due to design rule changes that cause DRC (design rule check) failure in the IP.

Unfortunately, when an IP supplier's customer embeds a block with an associated waiver in a design, DRC violations are identified by the DRC tool, and the customer is forced to review them and get them cleared by the foundry, which takes extra time and energy and can be very frustrating. Likewise, specific design houses may have already agreed with

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the foundry on modified or waived rules. Both of these issues are addressed by the Calibre Auto-Waiver solution. Additionally, when such GDS (graphic data system) files arrive at TowerJazz for manufacture, a DRC run is performed before MASK generation. TowerJazz uses the waiver flow to clean all the agreed waivers and show only real DRC errors that should be addressed.

“TowerJazz is expanding our offering into new markets and regions, so one of our key challenges is minimizing overall tapeout cycle time while maintaining both flexibility and quality standards,” said Ori Galzur, vice president of VLSI Design Center and Design Enablement at TowerJazz. “By employing the Calibre Auto-Waiver product in the flow, we can quickly and accurately deal with waivers associated with both IP embedded in our customers’ designs, and customer-specific rules, eliminating problems that could otherwise delay tapeouts.”

The Calibre Auto-Waiver product, a tool that complements [Calibre nmDRC™](#) product, supports automatic waiver management by using waiver information included in the IP library itself, or on top of the standard Calibre DRC design kit issued by the foundry. The Calibre product uses the waiver information to automatically modify its handling of the specific checks and locations associated with the waived rules. The process is fully qualified by the foundry as part of the Calibre product certification for a specific process and rule file. Through this mechanism, the Calibre product can automatically and accurately remove waived violations from the DRC output, regardless of how or where the errors appear hierarchically. It also reports the violations that are waived, provides information about the waivers to the designer on request, and creates an audit trail of the waived results.

“Calibre Auto-Waiver is gaining a strong following because an automatic waiver flow maintains rigorous sign-off checking while eliminating days of wasted time reviewing violations that have already been waived,” said Michael Buehler-Garcia,

senior director of Calibre Design Solutions Marketing. “The solution gives TowerJazz a way to provide flexibility to their customers while maintaining golden sign-off quality.”

Join Mentor Graphics and TowerJazz at DAC for a joint session demonstrating the use of Calibre Auto-Waivers on June 10 at 2:00PM in the Mentor booth (#1432), Moscone Center, San Francisco.

### **About Mentor Graphics**

Mentor Graphics Corporation 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 the last fiscal year in excess of \$1.15 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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