

Siemens acquires Avatar, expands EDA footprint with innovative Place and Route technology

- **Acquisition expands Siemens' Xcelerator portfolio, enhancing current integrated circuit design offerings with pioneering place and route software**
- **Avatar technology strengthens Siemens' leadership in Design to Silicon with place and route for advanced node design**

Siemens has signed an agreement to acquire Santa Clara, CA-based Avatar Integrated Systems Inc., a leading developer of place and route software for integrated circuit (IC) design. Avatar helps engineers optimize power, performance, and area (PPA) for complex chips with fewer resources. Siemens plans to add Avatar's technology to the [Xcelerator portfolio](#) as part of Mentor's IC suite of software, capitalizing on the growing segment of place and route. Avatar will be integrated with existing market-leading products from Mentor, a Siemens Business, including the [Calibre® platform](#), [Tessent™ software](#), and [Catapult™ HLS software](#), to help customers develop solutions that address today's and tomorrow's design implementation challenges.

"Customers are accelerating their move to advanced process nodes. Navigating the increasing complexity is a crucial challenge," said [Joseph Sawicki](#), executive vice president, Mentor IC EDA, Siemens Digital Industries Software. "Avatar's innovative software architecture, as well as a reputation for ease of use, helps customers overcome this complexity with advanced node place and route capability. The Avatar solution, backed by Siemens' investment, will offer customers shorter time to design closure with better PPA results than existing competitive offerings. We welcome the Avatar team and community to Siemens."

At 7nm and below, detailed routing must be considered during placement. Avatar pioneered a detailed-route-centric architecture that has been built bottom-up on a unified in-memory data model, designed to enable all engines to access full design data and attributes at any time. This empowers each engine (placement, routing, timing, optimization, clock tree synthesis, etc.) to dynamically invoke other engines incrementally.

"Avatar's approach can lead to excellent correlation through all phases of place and route, with improved PPA results," said Ping San Tzeng, Chief Technical Officer, Avatar Integrated Systems. "As a part of Siemens, Avatar can further develop this approach, accelerate R&D, and grow market share by leveraging a much larger pool of resources. We are proud of our technical achievements and well-known record for excellent customer support and look forward to enhancing these strengths as part of Siemens."

Avatar's products are built on technologies acquired from ATopTech Inc. in 2017. The product line includes Aprisa, a netlist-to-GDS full-function block-level physical implementation tool, and Apogee, a complete top-level prototyping, floor-planning and chip assembly tool. The industry's top semiconductor foundries have qualified Avatar's products for designs at established and advanced process nodes, such as 28nm and 7nm - with 6nm and 5nm currently under development.

Siemens' acquisition of Avatar is expected to close in the second half of 2020. Terms of the transaction are not disclosed.

Siemens Digital Industries Software is driving transformation to enable a digital enterprise where engineering, manufacturing and electronics design meet tomorrow. The [Xcelerator portfolio](#) helps companies of all sizes create and leverage digital twins that provide organizations with new insights, opportunities and levels of automation to drive innovation. For more information on Siemens Digital Industries Software products and services, visit www.sw.siemens.com or follow us on [LinkedIn](#), [Twitter](#), [Facebook](#) and [Instagram](#). Siemens Digital Industries Software – Where today meets tomorrow.

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Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 170 years. The company is active around the globe, focusing on the areas of power generation and distribution, intelligent infrastructure for buildings and distributed energy systems, and automation and digitalization in the process and manufacturing industries. Through the separately managed company Siemens Mobility, a leading supplier of smart mobility solutions for rail and road transport, Siemens is shaping the world market for passenger and freight services. Due to its majority stakes in the publicly listed companies Siemens Healthineers AG and Siemens Gamesa Renewable Energy, Siemens is also a world-leading supplier of medical technology and digital healthcare services as well as environmentally friendly solutions for onshore and offshore wind power generation. In fiscal 2019, which ended on September 30, 2019, Siemens generated revenue of €86.8 billion and net income of €5.6 billion. At the end of September 2019, the company had around 385,000 employees worldwide. Further information is available on the Internet at www.siemens.com.

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