

Openness among EDA vendors will aid growth

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Today, many market opportunities are being ignored as EDA vendors fight over the same \$3 billion pie. It is estimated that for every dollar that goes to EDA vendors, an additional \$3 is spent on EDA by the chip design companies. So where is this additional \$9 billion going?

Customers spend part of it internally developing and supporting tools they need, but which no company offers.

An even larger portion is spent by customers developing their own solutions for interoperability, exhausting countless hours adapting vendor-provided tools to work together.

The best opportunity for EDA industry growth is through openness. Openness facilitates interactions between tools. It requires common data formats, industry-standard databases and open application programming interfaces, all of which can breed new tools.

The majority of today's tool sales are in the areas of synthesis and place and route. Bringing a new type of tool to the market is difficult, since it often requires a new database structure and must interface to the many tools already in use.

Less than 10 percent of development time is spent on creating the core algorithm in a new tool. The other 90 percent is spent on making the software work with other tools. If vendors opened up their tool interfaces, giving customers access to truly interoperable, best-of-breed tools, the value of the entire market would dramatically increase, and customer satisfaction would skyrocket.

Several opportunities exist. For example, vendors are giving high-speed digital and analog design much less attention than they deserve. Both of these areas are ripe for new, lucrative solutions from EDA companies.

Two recent examples of companies taking advantage of new market opportunities are Barcelona Design, which is addressing analog design using the Web, and Verplex, working with formal verification.

Customers also want open databases from EDA vendors. Several leading companies are pushing for open database standards. An example is OpenAccess, which is working to develop an industry-standard open API using Cadence Design Systems' Genesis database.

Vendor openness will drive customer satisfaction and open a market that is at least three times the value of today's market. An open attitude about working with other companies to exchange data generates opportunities for start-up companies with new tools, and for established leaders with entrenched tools. Chip designers and tool developers also need to work together, since breakthroughs typically occur at the interface between the two fields.

By working together, EDA companies and customers can achieve higher levels of productivity, improved revenue and greater satisfaction.

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