

Panel: The EDA Start-up Experience: The First Product

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Organizer: Mike Murray - Acuson Corporation, Mountain View, Ca.

Panelists:

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Curt Widdoes - 0-In Design Automation, Inc., San Jose, Ca.

Abstract

How does a novel EDA idea get transformed into a commercially successful product? Six veteran EDA entrepreneurs will discuss their experiences in bringing their companies' first products to market. Where did their ideas come from? How did they know their ideas would meet real customer needs? And how many customers would there be? How are evolutionary and revolutionary products developed and marketed differently? When did the entrepreneurs stop developing and start shipping? Who were their competitors and their partners? Did they adopt industry standards or create new ones? How did they use advertising, DAC, and the WWW to promote their products? What are the relative merits of direct, VAR, and OEM selling?

Position Statements

Rick Carlson, Synplicity

I have been involved in several EDA start-ups since 1982 (Mentor Graphics, Daisy Systems, EDA Systems, Escalade, and Synplicity) as a sales manager or sales executive, and I have found that the companies that were successful had a number of key ingredients that made their first products winners. These ingredients were:

- 1) Compelling technology that can be built into multiple products
- 2) Dynamic market
- 3) Strong, well-rounded management team that can work together
- 4) Well thought out sales and marketing strategy
- 5) Unrelenting desire to listen hard, tell the truth, and be flexible
- 6) An empowering Corporate Philosophy

In various personal experiences when too many of the above items are not in place the degree of success is variably mitigated.

Dean Drako, Design Acceleration

There are several ingredients to launching a successful EDA company:

- 1) solve a real customer problem that no one else is solving
- 2) stay focussed on solving the customer's problem

3) assemble the best team you can.

Customers have problems. To successfully sell a product you need to solve a REAL and specific problem for them and one that does not have another solution. Too many company ideas attempt to solve problems that are either only a nuisance to a customer, are non-existent in the customer's eyes, or already have a reasonable solution. It is hard to get customers to pay money for items like this. At DAI we have targeted solving the Waveform Viewing and RTL Debugging problem. When we entered the market we were the only supplier addressing this customer need. It was and remains a real customer need.

Once you understand your customer and the problem you are trying to solve, you need to stay focussed on solving that problem for that customer. You will encounter many other ideas and many other types of customers, but you need to resist the temptation to serve them. Specialization and expertise will eventually win in the market place. At DAI we have stayed focussed on providing the most powerful and complete Waveform Viewing and Source Code Debugging system. We continue to stay focussed on this. We continue to strive to keep our customers happy in this area. You cannot falter in your belief that solving your customer's problem well will make the company successful.

The team is extremely important. You need to assemble the strongest engineering, sales, marketing, and management team that you can. The road to success is extremely hard and only the best teams make it. Any weak link in the team will make the challenge even higher. At DAI we established a tremendous team early in the company.

Rajeev Madhavan, Magma Design Automation

EDA start-ups are successful when a product is created to address a compelling customer need. The company's potential financial success is directly related to the size of the customer need.

The company's focus on this customer need must be singular, directed, and complete. Start-ups need to focus on only one initial product in their core competency. A common start-up mistake is to attempt to financially bootstrap the company with consulting or smaller products. These efforts may provide needed cash but can seriously defocus the company away from its main product.

A start-ups real assets are its people: employees and potential customers. A crucial factor is recruiting an experienced capable

team where each member has a clear purpose. Many start-ups fail to spend enough time understanding all of the detailed customer requirements. Successful EDA ventures use innovative approaches to address customer needs.

John Sanguinetti, Modellogic

The key ingredient of launching a successful EDA product is customers.

Having a particular type of customer in mind, and a particular customer if possible, and knowing what their needs are is the key. In my case, the original customer prototype was myself, since I had been a design verification engineer and used Verilog for regression testing. Very early on, we identified a particular customer, Sun, to be our target customer. We figured that if we made Sun happy, we would make other people happy, too. This turned out to be true.

We also identified the problem we were solving - simulation speed. We focused almost entirely on that, from company slogan (The Fast Verilog Company), to advertising, to customer benchmarks. The acceptance criterion for our product in competitive benchmarks was always "how much faster is it than the competition". This focus was as useful internally in making design decisions as it was externally in positioning the company and product against the competition.

If there is anything that can be generalized from Chronologic's experience it is the value of a single focus on a real customer problem.

Curt Widdoes, 0-In Design Automation

I have founded three successful EDA start-ups: Valid Logic, Logic Modeling, and 0-In, so I have learned quite a bit about what it takes to make one succeed.

To be a success in EDA today, a start-up needs a franchise product. A franchise product is one that has high value, is highly differentiated, and is difficult for competitors to duplicate. A franchise product can be priced to reflect its value and can support the growth of a new company. Dracula, Verilog, and Design Compiler were franchise products.

It is important for a new company to maintain its initial franchise long enough to build a strong channel. In this sense, EDA is a friendly environment, because the limited size of the market makes it relatively easy to see potential competition and to plan from the beginning to steer clear of it. These days in EDA, we no longer have multiple piles of venture capital all chasing the same idea, the large EDA companies have their plates full taking care of legacy product lines, and non-EDA companies with lots of capital find our market too difficult and too small. Even better, our customers always have tremendous needs for new products and technologies; our industry has continuously been behind the needs of its customers. As a result, there are many opportunities for wonderful new franchise products.

In EDA today, the first product must complement existing design methodology rather than attempt to replace it. There have been a number of "vision" start-ups in EDA, which attempted to convince customers to adopt major methodology shifts. These start-ups ran out of capital. Once a start-up's initial complementary product is successfully deployed, then its customers may be willing to try some incremental changes in methodology in order to increase the benefit derived from the new product. Over time, an EDA company can cause a sizable methodology shift in this way, and in doing so can provide substantial value to its customer base.

In the twenty years that I have been starting EDA companies, I have learned a couple of rules of thumb which probably transcend our industry. First, make sure that your customers want to buy the

initial product. The most effective way to do this is to ask them. In EDA, at least, it is so difficult for the customers to get what they need that they are eager to provide guidance. Second, make absolutely no compromises in the quality of the team. This is, without any question, the most important rule. Every young company will encounter some problems; a good team will eventually figure out how to solve them.