The changing face of distribution: 3D isn’t just for the TV ... or the printer

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Distributors distribute, right? Common sense dictates this to be, well obvious and true. But the past 5 years has seen a transformation of the high-service electronics distribution industry where business models and service levels have been redrawn to become more relevant, more competitive and more attractive. Relevant in the sense of keeping pace with shrinking development cycles and rapid advances in technology, competitiveness in a global economy that transcends geography and traditional allegiances, and attractiveness by offering more value to the engineer.

Distribution is 1D

So distributors have gotten smarter; they know the 1D of the traditional Distribution model doesn’t cut it anymore. At the heart of high-service distribution is hard core asset management of a vast array of relevant products, all available for fast delivery – giving designers what they want, when they want it and at a competitive price. On top of this core offering, new services have been developed and layered by the distributor: free technical support, packaging options such as full and half reels, re-reeling, drilled tubes and guarantees for moisture sensitive parts. Products can be searched for and found by architecture, technology type, application or end market (oh, and part #); customers with affinity for a preferred distribution partner can be rewarded through loyalty programs; and, alliances with specialist third-party providers such as PCB fabricators allow distributors to broaden their services and move further to the left of the product development continuum.

Development and distribution is 2D

High-service distributors no longer just provide the parts needed to assemble and produce a board level product or test equipment needed to verify the design; they are becoming more involved in Development, the 2D offer they have already adopted. A number of distributors for example provide their own PCB layout and editing tools such as EAGLE. They invest in the software and IP, they develop the roadmaps and they support the engineer. This board-level integration is also manifest in the way distributors have woven their parts databases into other mainstream PCB tools. From within the UI of most PCB/ CAD tools, engineers can

access millions of orderable parts in real time, check on detailed information such as parameters, stocking, pricing, compliance and download symbols, footprints and datasheets. They can also, referencing the comment above, directly connect with a PCB fabricator and get prototype PCBs delivered to their door…all without leaving their familiar development environment.

The focus on development can also be seen in the increasing levels of embedded software tools that distributors provide and the technical support they wrap around it. Development Boards and Kits (including exclusives), RTOS, JTAG, debuggers, Flashers, EDA tools and IDEs to name but a few, can all be supplied. A rich pool of engineering knowhow has been made available online as distributors exploit their extensive network of global supplier relationships to aggregate content such as app notes, datasheets, video tutorials, blogs, manuals, white papers, code snippets and design examples.

This aggregation of engineering knowhow by the distributor is also embracing 'developer' generated content through active participation in bespoke communities and social media.

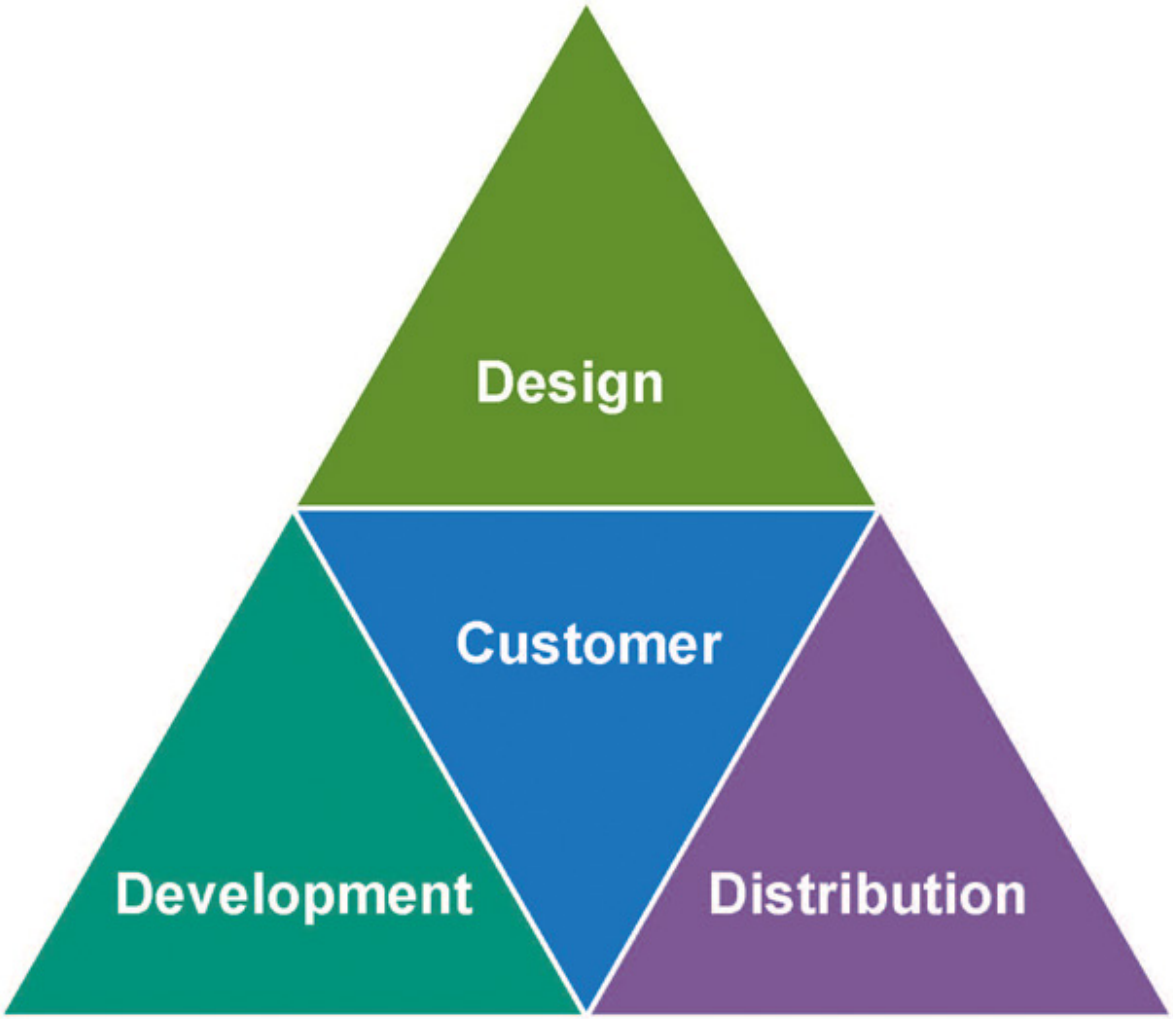
The largest design engineering community, Newark's element 14 Community, is a space for peer review, discussion, debate, fun (!) and the sharing of ideas and experiences. It's a channel that semiconductor companies and component suppliers are becoming increasingly tuned into as it gives extra voice to the developer and a deeper insight and understanding into what drives them.

Using conventional wisdom, this is not what you would expect from a 1D high-service distribution business model.

Design, development, and distribution is 3D

So as this model continues to evolve, so distributors will continue their journey to the left of the product development continuum. To enable this, adding a true Design capability to the high-service distribution offer is a logical next step. This offers an even greater level of depth about the design process that builds upon a distributor's core competence in asset management, the global logistics and supply chain muscle, and the development solutions that support the engineer from end to end.

By providing new solutions that are increasingly more abstract than board-level components, distributors are increasingly placing the designer, the developer and the engineer at the heart of their strategies, (Figure 1) turning the myth of single source distribution into a very real possibility.



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