Fear itself

Alix Paultre, Editor-in-Chief

Everyone is worried about the global economy, and many are afraid that the U.S. electronic design and manufacturing industry is facing dire straights. To those who worry, I say that the primary American electronic markets are amongst the most economically stable places in this crisis, and have some of the most innovative and creative engineers in the world. We are not only going to weather this mess, we will be at the heart of the resurgence and recovery of the American economy.

We had our market correction at the end of the dot-com bust, with our own rending of garments and gnashing of teeth, so we are more financially prepared for hard times, having recently gone through (with some aftershocks not yet recovered from) them ourselves. We still design excellent devices, and America's international partnerships continue to generate value for their customers worldwide.

For example, the shift towards being a system-level solutions provider instead of a simple parts manufacturer continues, increasing productivity and the power of multi-disciplinary partnerships is one of the engines of progress that is energizing the industry. Jon Titus and I just returned from the inaugural Renesas Developer's Conference (look for Jon's missives from the event in future issues), and there were several hundred engineers there showing their confidence in the market.

I had an interesting discussion with Ali Sebt, who runs Renesas' System LSI and Automotive units, on the importance of collaboration and system-level solutions in this aggressive marketplace. "Engineers need not only the part, but also the development tools and debuggers to use them in their designs. Our most recent poll among our customers put debugging at the top of the list of desired functionality in design software."

One of the big items among the announcements and demonstrations at the conference was the full availability of Renesas' SubAtomic Particle Demonstration

Platform for their latest generation of MCUs. The kit includes a board, cables, compiler, debug emulator, and embedded workshop software (look for Jon's report on that in an upcoming issue as well). In addition, the company announced that in coming years their MCUs will be available with on-chip MRAM, enabling truly power-off electronic products.

Speaking of tools, National Semiconductor recently released their Webench upgrades and additions for their sensors, switching synchronous buck controllers, and switching regulators. The nice thing about these new design tools, beyond their utility, is that the user creates the BOM with parts from partner companies to allow for maximum flexibility in their designs. Users can create a power supply with adjustable parameters for cost effectiveness, efficiency, and board space using tools including one for thermal simulation of the circuit.

We can do more as innovators, as well. The success or failure in America's push for energy independence lies on the shoulders of the design engineering community, and we must rise to the challenge. We must improve and digitize the grid as rapidly as possible, implement energy-saving systems at every level, and increase industry awareness about available solutions. The technologies and devices created will not only help our ecosystem, but will also rejuvenate the U.S. economy and in turn, the world's.

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