Embedded COMPUTING DESIGN
March E-Letter

Harvesting nanowatts to milliwatts from ambient sources using advanced energy harvester integrated circuits


Niranjan Pathare, Texas Instruments

In the context of energy harvesting, advanced power management integrated circuits (PMICs) function like a utility company in that it controls the delivery of ambient power to downstream electronics. Properly selecting a PMIC based on five important criteria can allow system designers to augment system batteries or create self-powered systems.

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Has Microsoft forgotten about embedded?

Windows® Embedded


Rory Dear, European Editor/Technical Contributor

It's fair to say that nowadays, what most consider to be "embedded" has shifted. Previously synonymous with SBCs, HMIs, and small form factor industrial PCs, the shift in interpretation has moved from board-level product (and associated complete solutions) closer to the component level. IoT endpoint devices using few but highly advanced components are what embedded describes now, for many. Whilst the new embedded is undergoing exponential growth, the market for what we perhaps now must call "industrial embedded" remains vast. Thus, I was surprised…

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ANSYS, Inc.

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Technologic Systems

Technologic Systems TS-TPC-8950-4900 Touch Panel PC Released

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How software quality threatens the success of the Internet of Things

Paul Anderson GrammaTech

The Nest is a highly innovative, electronic smart home thermostat manufactured by Alphabet (formerly Google). It is by all accounts a well-designed device, replacing a traditional home thermostat and improving on it enormously by learning the habits of its users and adapting its settings in order to conserve energy. Its motion detectors notice when no one is at home. It connects to the cloud so you can check in and make adjustments from the comfort of your sofa, or from the other side of…

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SLIDESHOW: Embedded World 2016 Video Recap

Rich Nass, Embedded Computing Brand Director

Slide show --- Join Embedded Computing Design's Rich Nass on a video tour of 25 booths at the recent Embedded World conference in Nuremberg Germany, the largest exhibition of embedded and Internet of Things (IoT) silicon, software, systems, and solutions on earth. --- 1. Day Zero Embedded Computing Design's Rich Nass welcomes viewers to Embedded World 2016 pre-show from the OpenSystems Media booth in Nuremberg Messe, Hall 4, Booth 678. https://youtu.be/CSZlIkWTuRE http://embedded-computing.com/27400-embedded-world-2016-video-day-zero/ --- 2. Advantech brings embedded scale to serve end-to-end IoT Embedded Computing…

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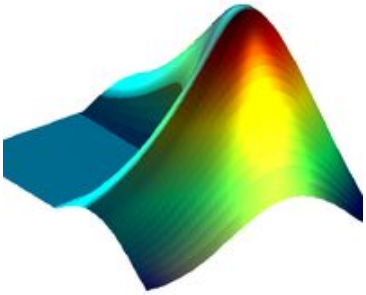

Analytics-driven embedded systems, an introduction


Paul Pilotte, MathWorks

The goal of the Internet of Things (IoT) is to acquire data from various embedded systems and impart analytical processes on that data to improve performance, efficiency, and business outcomes. In part one of a three-part series on designing analytics-driven embedded systems, best practices for the acquisition and pre-processing of IoT data are reviewed.

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Formal verification going mainstream for SoC block verification


David Kelf OneSpin Solutions

The use of formal verification technology as a mainstream technique for system-on-chip (SoC) designs is, at last, becoming a recognized approach to combat the verification gap. A recent survey suggests that formal assertion-based verification (ABV) is now used on 26 percent of chip design projects. However, the promise of this alternative approach to classic simulation has taken many years to bear fruit, and still only advanced verification environments incorporate it. Why is this and what can we learn from its use so far to make it available to the SoC engineering community at large?

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White Paper: Where Does FAT Fail?


Thom Denholm, Technical Product Manager, Datalight

The FAT (File Allocation Table) file system was originally designed for the BASIC interpreter, and was later incorporated into QDOS, which evolved into PC-DOS and MS-DOS. The target environment for this software was a desktop computer, and robust handling of power interruption was not a consideration as those machines were in their infancy (though it did create a large market for Uninterruptible Power Supplies). Many embedded designs depend on battery power, often using a removable battery, and power loss occurs far more frequently than…

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White Paper: Next Generation Bill of Materials Management: Beyond BOM 101

Staff, Arena Solutions

In the world of product development and manufacturing, the bill of materials (BOM) is a critical product information record for both the engineering and manufacturing teams. Traditionally, BOMs have been created and updated in spreadsheets, and communicated to internal teams, outsourced manufacturers and suppliers via e-mail, phone or fax. Usually, final BOMs are also loaded into the ERP systems. However, compressed product lifecycles, geographically dispersed project teams, cost pressures, outsourced partnerships, and stringent regulatory requirements are challenging the traditional BOM management and communication in…

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Pentair Electronics Protection/Schroff

Schroff Flexible Heat Conductor from Pentair

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Using default time zone: America/New_York

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