Embedded Europe

Connecting Silicon, Software, and Strategies for Intelligent Systems

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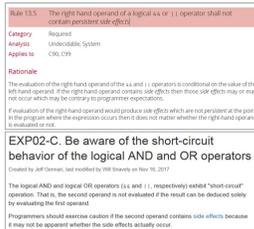
Developing a safe, secure system: SEI CERT C versus MISRA C:2012 AMD1

MARK PITCHFORD, LDRA

To address security concerns, many safety-critical software development organizations extend the safety-critical model and use coding standards such as MISRA or CERT to minimize vulnerabilities. It is therefore useful to compare how the principles of the ?SEI CERT C Coding Standard? and the ?MISRA C:2012 Guidelines? with ?MISRA C:2012 Amendment 1? fit such a formal development process.

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Troubleshooting RS485 networks

KEVIN KILFORD, DATASOUND LABORATORIES LTD

In many situations, system assemblers are finding that RS485 networks are unreliable or simply do not work. In a world of plug and play serial digital interfaces the integral sophistication of these long standing digital serial communication interfaces and protocols are commonly underestimated and this can sometimes lead to issues in the field leading to questions relating to the quality and reliability of the systems designed in.

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[Data I/O](#)

Identify the differences between safety and security, guard against interactions

ANDREW LONGHURST, WITTENSTEIN

Securely connecting safety devices to the Internet is a key requirement in just about every industry, especially so in the medical and automotive sectors. Safety and security share many properties; however, these similarities can be dangerous, and if handled incorrectly can result in the wrong design decisions being made. Understand the differences to ensure the best results.

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Taking a nap: Low power design now falls to software developers

COLIN WALLS, MENTOR

Low power design, until only recently, would have been considered purely a hardware issue, but it is now very much on the agenda for software developers. The thinking is simple: the software ? knows? what is required of a device at any given moment, so it is well placed to determine which resources are required and make them available.

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Design automotive applications with Trenz Zynq UltraScale+ Starter Kit and Digilent Pmod CAN

The Ultrascale+ starter kit consists of MPSoC module and basedboard. Connect Pmod CAN with the basedboard to create a range of automotive applications

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Is FreeRTOS the future of embedded operating systems?

BRANDON LEWIS

The release of Amazon FreeRTOS generated considerable excitement in the IoT market. But outside of another victory for free and open-source software, what does this say about the overall direction of software engineering, if anything?

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Filling the data scientist gap, part 1: Turning engineers into data scientists

SETH DELAND, MATHWORKS

Domain knowledge is hard to teach: It requires on-the-job experience, mentorship, and time to develop. This type of expertise is often found in engineering and research departments that have built cultures around understanding the products they design and build.

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 Supermicro

Develop data glasses faster

ECD STAFF

The Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology FEP, a

provider of research and development services in the area of organic electronics, is expanding its array of development tools.

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RISC-V processor trace IP released by UltraSoC
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Processor trace functionality allows the behavior of a program to be viewed in detail, instruction-by-instruction, and is a key requirement for system developers. The UltraSoC RISC-V trace encoder supports both 32 and 64-bit RISC-V designs, and the IP block integrates smoothly with the rest of the UltraSoC portfolio.

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CommAgility LTE systems chosen by Lockheed Martin for satcom project
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CommAgility is supplying a customized version of its SmallCellPHY software, which is a complete LTE physical layer for small cells, compliant with 3GPP Release 10. The LTE software will run on CommAgility's AMC-D24A4-RFx processing/RF module, and the company is also supplying its AMC-4C6678-SRIO module for the project.

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MPLAB? Mindi? Analog Simulator

MPLABB Mindi? Analog Simulator reduces circuit design time and design risk by simulating analog circuits prior to hardware prototyping. The simulation tool uses a SIMetrix/SIMPLIS simulation environment, with options to use SPICE or piecewise linear modeling, that can cover a very wide set of possible simulation needs.
Click here to find out more

Rohde & Schwarz demonstrates T&M equipment for next generation designs at embedded world 2018
ECD STAFF

Rohde & Schwarz will be presenting its T&M instruments at embedded world 2018. Tests on electronic circuits have shown that these instruments significantly increase measurement reliability. Highlights include the new embedded oscilloscopes with a 10-bit resolution and large memory depth; new, high-precision power rail probes; and an EMC precompliance test setup.

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 ARM Ltd.

Accelerate the journey towards an intelligent end device with Lemonbeat Studio 2.0

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To coincide with Embedded World in Nuremberg, Lemonbeat GmbH is presenting Lemonbeat Studio 2.0, its latest software for the rapid development of intelligent end devices for the Internet of Things (IoT).

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Security is Paramount in Medical

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