

The USB spec continues its march forward



Rory Dear, European Editor/Technical Contributor

Having spent far too much time wrestling with why, against statistical logic, I invariably only connect a USB connector successfully on the third attempt, the orientation agnostic USB Type-C connector is well overdue. That fact alone is enough to excite me, but the USB 3.1 revolution it brings with it leaves me figuratively panting. Early USB 3.0 ports (now re-classified as USB 3.1 Gen 1) offered 5 Gbits/s (SuperSpeed) bandwidth, whilst USB 3.1 Gen 2 doubles this to a PCI Express-competing throughput of 10... [Continued...](#)

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The latest in industrial flash



Rory Dear, European Editor/Technical Contributor

The raison d'être of the flash storage industry is arguably cross compatibility, thus strict adherence to industry specifications make it notoriously difficult for flash vendors to achieve real differentiation. There already exists a plethora of flash form factors, this overabundance for me means that I'm rarely excited about the latest wheeled in front of me. Hence, I'm always looking beyond mechanicals. At Computex 2016, despite it lurking timidly at the rear of the booth, Innodisk's new integrated RAID philosophy caught my eye. From my...

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The beginnings of innovation in the “new” embedded



Rory Dear, European Editor/Technical Contributor

I'm often guilty of tunnel vision when it comes to embedded, as the majority of my career has been spent where embedded and industrial were synonymous, and often interchangeable. However, events like Computex 2016 always remind me just how wide the scope of embedded is today. In fact, I now genuinely believe that our industry can no longer be described as niche—we've finally become mainstream. With that brings an abundance of new opportunities for all involved, though new prey attracts new predators. The enterprise...

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PC/104 maintains its presence in embedded

systems



Rory Dear, European Editor/Technical Contributor

The modular PC/104 architecture maintains its relevance in a competitive field. PC/104 is into its third decade, standing the test of time whilst myriad form factors of yesteryear have faded into irrelevance. So why is PC/104 so persistent? How has it survived? The simple answer for me is the tireless work of the consortium that lies behind its continued success. A collaboration of companies with a common vision, it was formed in 1992 with 12 members, but now has almost triple that. The consortium... [Continued...](#)

IoT Design Podcast



Brandon Lewis, Technology Editor

The Internet of Things is primed to change the way we understand and interact with the world around us, not only in the technology industry but for the man on the street as well. The IoT Design Podcast is a series of audio interviews with Internet of Things experts – from the industrial, security, cloud, [...] [Continued...](#)

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With today's advanced coding tools, catastrophes should be non-existent



Rory Dear, European Editor/Technical Contributor

In our increasingly automated world, ensuring safety and reliability of what goes on behind the scenes within embedded software code has reached new levels of criticality, especially following some recent high profile and potentially catastrophic failures. This includes Nissan's airbag deployment glitch and Toyota's Prius recall. 2014 even saw the entire UK airspace closed for a day due to a software flaw. These are some select examples from the plethora of coding calamities shockingly still evident in our collective drive towards automation. So who's... [Continued...](#)

Dell creating an IoT ecosystem at the intersection of the Internet and things



Rich Nass, Embedded Computing Brand Director

Geoffrey Moore has chronicled in his bestseller book Inside the Tornado how Intel and Microsoft hugely benefited from partnerships in the PC era and also made a lot of companies rich on the way. He says, "The market's goal is to serve the broad... [Continued...](#)

Industrial IoT from Siemens, ABB, and ARM

highlight Computex 2016



Rory Dear, European Editor/Technical Contributor

Quick to distance itself from consumer IoT, Industrial IoT (IIoT) or Industry 4.0, by definition, heralds the forth industrial revolution which promises to transform industry as we know it. Computex 2016 will demonstrate how those promises of unprecedented efficiency, autonomous manufacturing, and preventative maintenance will alter the landscape of how we do business, from inception to deployment, forever. IIoT places demands on data integrity, security and reliability that are far higher than its consumer counterpart, where consequences of failure anywhere in the chain can... [Continued...](#)

Panel PCs in POS environments – commercial projects now industrial



Rory Dear, European Editor/Technical Contributor

To this day I find myself regularly debating the improper crowbarring of commercial IT solutions into industrial applications, where a natural lack of longevity and inadequate environmental specifications are often ignored as the lure of low cost blinds the project manager. Recently, I've observed the polar opposite: solutions with true industrial credentials are finding a home in environments where, historically, commercial solutions were king. But why? One of the primary factors in the commercial/industrial debate is the cost of failure – not necessarily monetary... [Continued...](#)

IoT Gateways: Designed out before designed in?



Rory Dear, European Editor/Technical Contributor

With the news that the lower end of the 4G LTE spectrum is to be opened up for low bandwidth M2M and IoT devices, with CAT1 and soon CAT0 connectivity, one must consider if the much-anticipated IoT Gateway has obsolescence in sight before its widespread implementation. From the mobile networks, whilst this may first appear to be a huge investment they're making in IoT, they actually have little choice. With the well-publicized predictions of billions of IoT devices by the end of the decade,... [Continued...](#)

Industrial Internet through the wire with EtherCAT Technology Group



Brandon Lewis, Technology Editor

With all the fuss around wireless connectivity for the Internet of Things (IoT), it's sometimes easy to forget that the backbone of industrial systems is built on wired fieldbus technologies. While some of those legacy fieldbus technologies are starting to give way, EtherCAT, the "Ethernet Fieldbus" is not only continuing to succeed in industrial [...] [Continued...](#)



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Last updated: Tue, 21 Jun 2016 13:59:22 +0000

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Thank you for reading this issue of the *Embedded Europe E-newsletter*,

subject: "What Computex 2016 means for Europe, advances in
USB 3.1, flash and the innovation of IoT".