



Dedicated Systems

Dedicated Systems welcomes Cindy Potter

We are delighted to welcome Cindy into the Dedicated team in the position of Consultant Engineer, helping to strengthen the level of support and services we provide to our customers.

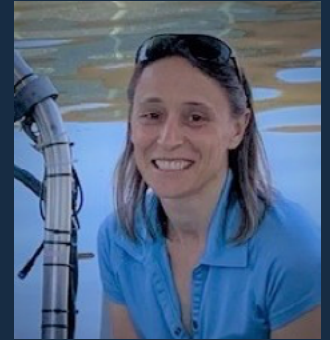
Cindy joins us after a lengthy stay at DST Group's Cyber Division where she gained broad experience.

Initially she was involved with EW applications targeting radar applications. Her projects during this time were predominantly the design and testing of (GaAs) RF ASIC's. From there she moved into comms undertaking mixed signal (SoS) ASIC design and testing.

Her recent work has been in the area of wireless communication system development, implementation and testing. This latest project work has drawn on skillsets including RF engineering, digital signal processing, and digital implementation in FPGA hardware.

We've known Cindy for many years, she is a delightful addition to the team and brings with her both great abilities and experience.

Cindy can be contacted on [E cindy@dedicatedsystems.com.au](mailto:cindy@dedicatedsystems.com.au)



Certifying Multicore Timing Analysis for DO178 Projects – On Demand Webinar

With the increasing use of multicore processors in the critical embedded aerospace industry, understanding how to perform timing analysis of these systems in line with DO-178C is crucial.

In this webinar, you'll learn from world-leading experts on multicore timing analysis and avionics certification. Register now to find out about:

1. DO-178C compliance for multicore and the impact of CAST-32A
2. Challenges of accounting for interference from shared resources
3. A practical solution for multicore timing analysis including WCET

[Watch](#)





GPGPU Programming with Ada – On Demand Webinar

Embedded software engineers are under increasing pressure to deliver more, in less time, with fewer defects. As such we've seen a greater demand for tools that can:

- Shorten development and test time
- Improve code quality and reusability
- Meet the demands of software standards for safety and security

[Watch](#)

AdaCore



Game-Changing Leap in Autonomous Vehicle Software Architecture – Webinar

A connected and autonomous future for transportation requires a major leap in architecture and software innovation. In autonomous vehicles, an immense amount of data is passed between applications requiring safety, security and a more dynamic solution. A significant investment in new technology is needed to meet these functional system requirements, while also maintaining the high-standard of non-functional requirements for which the industry is known.

Join this webinar to hear RTI's Senior Director of Automotive discuss how Connex DDS was designed for mission-critical applications with safety concerns, making it the ideal connectivity framework for autonomous vehicles.

[Register](#)



New AMD GPU XMC module supporting ARINC 818

- XMC 1.0 (VITA42) or XMC2.0 (VITA61)
- AMD Radeon™ E9171 GPU/GPGPU
- 3 HDMI or DisplayPort video outputs
- HDMI to ARINC 818 converter

Designed for demanding graphics and video applications, the [IC-GRA-XMCD](#) represents the latest generation of GPU and GPGPU graphics XMC module, suited for today's defence and avionic fields.

The on-board AMD Radeon E9171 GPGPU features significant improvements versus former GPUs such as superior graphics rendering and high definition decode compressed video streams. The support of OpenGL 4.5 and OpenCL 2.0 allows the user open standard software programming.

Coming with a Xilinx Kintex Ultrascale FPGA, the IC-GRA-XMCD offers an additional functionality of a HDMI to ARINC 818 or 3G-SDI converter. This XMC module is particularly suited to our Single Board Computers such as [IC-INT-VPX6d](#) and [IC-INT-VMEb](#).

The IC-GRA-XMCD is available in standard, extended, rugged air-cooled and conduction grades.





UEI for your Engine Test Application Requirements

UEI's systems are perfect for many types of engine test applications. Whether you are collecting dynamic high-speed data monitoring vibration or lower-speed monitoring of temperature and strain, UEI has your application solution covered. Control your FADEC with ARINC-429 or MIL-STD-1553 to ensure your signals and sensors are valid.



Features include:

- Rugged Ethernet-based architecture (5G Vibration | 100G Shock | -40 to 85° C | Altitude to 120,000 ft) allows for direct mounting to the test stand or other close to the action environments.
- Reduced noise due to hardware located in proximity with application sensors.
- Wide array of [flexible chassis](#) styles that allow for the installation of up to 12 I/O boards.
- Transfer all measurement/control data through a single Ethernet bus.
- UEI distributed systems allow for redundancy and improved safety.
- Hardware can be mounted right on the thrust frame.

[More Info](#)

Using Static Analysis to Detect API Usage Anomalies

Application programming interfaces (API) are heavily used in most modern programming: they allow developers to reuse functionality and build software faster. Unfortunately, there are no formally-defined specifications for most APIs, and these APIs are complex and non-trivial to use. As such, misuse of APIs are a source of defects and vulnerabilities. There is little automated tools support to help a developer verify correct usage since most tools don't understand the semantics of the APIs being used. Manually writing rules for all the API functions and building custom checkers in static analysis tools is time consuming and doesn't scale.



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Astranis Space Technologies Selects Wind River Real-Time Operating System for Next Generation Satellite



Wind River has announced that satellite start-up Astranis Space Technologies Corp. is using VxWorks® real-time operating system for its next generation satellite that will deliver cost-effective high-speed internet to underserved markets.

Over half of the world doesn't have access to the internet - and satellites are expected to play a major role in solving that problem. Astranis is building satellites that can deliver broadband internet services to individuals around the globe. It targets areas where, due to the high cost of building the infrastructure, broadband internet availability ranges from sparse to non-existent.

Astranis is using VxWorks to run the main flight computer that controls the avionics in guiding the satellite and keeping it in communication with Earth. Astranis recently announced that its first satellite will be going over Alaska, in partnership with Alaska-based internet provider Pacific Dataport, Inc.

Wind River's comprehensive software portfolio for the edge supports a diverse range of customer journeys in aerospace and defence, from design to development to deployment, with technologies that span across real-time operating systems, open-source-based platforms, system simulation and virtualisation.

In addition to its market-leading VxWorks for safety- and security-critical environments, the company offers Wind River Linux and other commercial-grade open source technologies for general purpose functions. The recently launched Wind River Helix Virtualisation Platform is for consolidating multiple federated systems with both safety-critical and general purpose applications onto a single compute platform. And for system simulation enabling unmodified target software to run on a virtual platform the same way it does on physical hardware, the company offers Wind River Simics®.

Varistar/Novastar Electronic Cabinet online Configurator



nVent SCHROFF have launched a 3D configurator to support users with the design process. Now users can configure custom Schroff Varistar or Novastar electronic cabinets online. The configurator covers the complete cabinet series consisting of electronic, network, and seismic cabinets. This wide range of options, functions and accessory parts is supported by the corresponding library of selections.



[Configurator](#)