

Revolutionizing Embedded Software Development

Imperas Newsletter: October 2016

"Silicon without software is just sand."

Updating you on what's new in the embedded software revolution.





Viewpoint: Simon Davidmann, CEO Imperas

We are looking forward to seeing you at <u>ARM TechCon</u>, October 25-27 at the Santa Clara Convention Center! For more information, see below and <u>click here for a press release</u>, or <u>click here for a highlights video</u>.

Looking forward, Imperas will also attend the embedded world conference, March 14-16, 2017 at the Exhibition Centre in Nürnberg, Germany.

To set up a meeting or demo, please email us at sales@imperas.com.

Please follow us: on Linked In, and twitter @ImperasSoftware

ARM TechCon is Coming!

Watch the Imperas highlights video here!

Or read more details below:

See Imperas Software Development Tools and Virtual Platforms at ARM TechCon 2016: Imperas Exhibits Solutions Supporting Software Debug and Test for the ARM-Based Embedded Systems

Imperas will exhibit solutions and deliver a technical session at the 2016 ARM TechCon, October 25-27, at the Santa Clara Convention Center. Contact us to register for a demonstration of Imperas embedded software development, debug and test solutions for ARM-based systems.

Demo Highlights (See Imperas in expo booth #520):

 Solutions: See demos of Imperas solutions for custom/proprietary processor modeling, early software development, more comprehensive software testing, and software/system power/timing estimation. Use cases include porting and bring up ARM
TechCon
Is
Coming!

- of hypervisors and operating systems, advanced software analysis such as code coverage, profiling and memory monitoring, and support for advanced methodologies such as Continuous Integration (CI)
- Demos: Linux booting on various Cortex-A platforms, RTOS booting on Cortex-M platforms, and the Imperas verification, analysis and profiling (VAP) tools, including OS-aware tools and advanced tools such as fault simulation.
- Models and architectures: <u>Open Virtual Platforms (OVP)</u> models and platforms cover the full line of ARM processors, including Cortex-A, R and M families, ARM big.LITTLE architecture and multi-cluster ARMv8 architectures.

Technical Session Highlights (Wednesday, October 26, 3:30-4:20pm):

• Integrating Power Models into Instruction Accurate Virtual Platforms for ARM-based MPSoCs by Imperas and OFFIS (Institute for Information Technology.) In embedded systems, extra-functional requirements like power consumption have been increasing in importance. Learn about power extensions in an instruction-accurate virtual platform. See an OVP Xilinx Zynq virtual platform with a dynamic voltage and frequency scaling compatible power model. Software on the virtual platform can access the actual power consumption and perform power management. Presentations and real-world demonstrations.

Partner Highlights:

 <u>SELTECH</u>, a Japan-based developer of hypervisors, will be in the Imperas booth daily, demonstrating their hypervisor-based solutions for safety- and security-critical embedded systems.

Read more here.

New Imperas Videos!





Video: Simon Davidmann on Virtual Platforms

Imperas CEO Simon discusses the Imperas mission to revolutionize software development, virtual platforms, key applications, multi-level software and hardware system models and what virtual prototyping can do for you!

View it here.

Imperas in the News



Hypervisors!

Hypervisors: Help or Hindrance?

Article by Brian Bailey, in Semiconductor Engineering's System-Level Design

"Almost everything is a tradeoff and tipping the scales is usually influenced by the end product goals. Hypervisors have a few such parameters. Hypervisors are seeing an increased level of adoption, but do they help or hinder the development and verification process? The answer may depend on your perspective." With Simon Davidmann of Imperas.

Read more here.

Imperas University Program!

Imperas Expands University Partners Program
Imperas Provides Free Access to Open Virtual Platforms Models and
Imperas Software Development, Debug and Test Tools

Imperas has expanded the Imperas University Program, with 34 universities now participating. The worldwide Imperas University Program was created to inspire and support the next generation of technologists and innovators. It grants academic and research institutions access to the tools and technology needed to address difficult challenges across embedded software and systems, from development and test, to quality and standards compliance, to security and IoT, to system architecture and optimization. Through this program, Imperas software reaches thousands of students and professors worldwide every year.

Read more here.



Rethinking Verification For Cars

Article by Ann Steffora Mutschler in Semiconductor Engineering's System-Level Design

Making cars more reliable, with Simon Davidmann.

"As the amount of electronic content in a car increases, so does the number of questions about how to improve reliability of those systems. Unlike an IoT device, which is expected last a couple of years, automotive electronics fall into a class of safety-critical devices. There are standards for verifying these devices, new test methodologies, and there is far more scrutiny about how all of this happens."

Read more here.

Heterogeneous System Challenges Grow

Article by Ann Steffora Mutschler in Semiconductor Engineering's System-Level Design

"How to make sure that different kinds of processors will work in an SoC..." Imperas CEO Simon Davidmann discusses the ever-increasing complexity of heterogeneous systems, real-world stimulus, booting OS, ensuring corner-case reliability, and new challenges in simulation, the heart of verification.

Read more here.

OVPsim Release News

OVP: Fast Simulation, Free open source models, Public APIs: Open Virtual Platforms.



A new Imperas and OVP release is available (October 2016).

The <u>Open Virtual Platforms</u> portal is one of the most exciting open source software developments in the embedded software world since GNU created GDB.

• For embedded software developers, virtual platforms are increasingly important, especially for multi-core designs.

The resources on this portal can significantly accelerate your development and test. The next release of OVPsim is expected to be available in January 2017.



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