

Revolutionizing Embedded Software Development

Imperas Newsletter: October 2015
"Silicon without software is just sand."

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





Viewpoint: Simon Davidmann, CEO Imperas

ARM TechCon is coming up in November, in Santa Clara, CA, and we hope to see you there. Highlights include a demo of a 32 x quad-core system based on the ARM Cortex-A72 processor: a total of 128 processors! This demo platform boots Linux, features QuantumLeap for simulation acceleration, and is supported by the Imperas multiprocessor debug and analysis tools.

Imperas also recently exhibited at **Renesas DevCon 2015** in Orange County, CA, as Larry discusses below.

Automotive and IoT are hot right now for many embedded developers. Of special concern are **security issues** for a wide variety of applications. See the interview below about the new prpl Foundation platform: "prpl is Pragmatic for Security."

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

Video: "Take Five" with Simon Davidmann, Imperas



Simon Davidmann, President and CEO of Imperas, visits the studio to chat with Warren. Simon shares his passion for improving productivity in design and verification, solving problems that engineers care about, and more.



Watch it here.

Imperas Demonstrates Virtual Platforms at ARM TechCon 2015

Imperas Shows Virtual Platforms for Software Development and Test



Imperas will exhibit at the <u>2015 ARM TechCon</u> and invites attendees to register for a demonstration of Imperas solutions for embedded software development, analysis, debug, verification and test, for ARM-based systems. See Imperas virtual platform demos, with <u>Open Virtual Platforms (OVP)</u> models of the full line of ARM processors, including Cortex-A, M and R families, at the Imperas booth, #520. To set up meetings with Imperas at ARM TechCon, please email <u>sales@imperas.com</u>

When: November 10-12, 2015. Expo hours are November 11-12, from

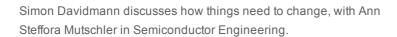
11:00am - 6:30pm.

Where: Santa Clara Convention Center, Santa Clara, CA.

Read more here.

Five Questions: Simon Davidmann

Imperas CEO Discusses Challenges in Software Development





Read more here.

Universities Use Imperas Tools for Embedded Systems Research and Teaching

Monique DeVoe of Embedded Computing Design on Imperas: "An industry-university development tools collaboration"

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 prepare students to meet difficult challenges across embedded software, from development and test, to quality and standards compliance, to security and IoT.



Read more here.

prpl is Pragmatic for Security

Imperas CEO View in RTC Magazine

"Most of the public discussion about security presents various aspects of the problems, or a high level view of risks/solutions, or an individual company's solution to their slice of the problem. The prpl Foundation's Security Working Group is taking a pragmatic, cross-functional approach



to security in embedded devices and systems. What do I mean by pragmatic and cross-functional?" Simon Davidmann explores and compares the two primary approaches to security in systems.

Read more here.

Imperas: EDAC Must Evolve on Multiple Fronts

Peggy Aycinena Interviews Simon Davidmann in EDA Cafe

Imperas Founder & CEO Simon Davidmann has been thinking about the EDA industry for a while, and the consortium that represents it. And like a lot of observers, he thinks change is in the air.



Read more here.

Imperas Releases Second Generation of Open Virtual Platforms APIs and Adds to Free Model Libraries

Over 150 Fast Processor Models Now Available from the OVP Website

Imperas released the second generation of the Open Virtual Platforms™ (OVP™) APIs for building virtual platforms, additional Fast Processor Models, new models for popular peripherals and new Extendable Platform Kits™ (EPKs™). Open Virtual Platforms is a website for the OVP APIs, for the OVP models and platforms, for the OVPsim simulator and for community discussion of virtual platforms on the OVP Forum. The OVP APIs are publicly available and not proprietary, and the models and platforms are available under the Apache Open Source License.



Imperas Update on Renesas Devcon 2015

Imperas participated in Renesas DevCon 2015 in October, in Southern California, demonstrating our solutions in the exhibit area. Also, Larry Lapides participated in the very popular panel, "Handling Software Development Complexity." Based on the traffic at our exhibit stand, and the standing room only attendance for the panel session, virtual platforms are moving into the mainstream for Renesas users.

The driver for the panel was increasing complexity of software due to additional features, additional requirements (e.g. ISO 26262) and multicore/multiprocessor systems. The panelists were in agreement that new tools and methodologies, such as model-based development and virtual platforms, are necessary for success with next generation (and current generation) systems. The long product life cycles and risk averse nature of the automotive industry were cited as reasons for the slow adoption of these technologies, and also cited as the reasons for adoption. One panelist noted that with these characteristics, there is





likely a difference between the perceived maturity and actual maturity of these technologies, such that software engineering and executive management might view these technologies as less mature than they are. Another thread from the panelists was that paradigm shifts like switching to virtual platforms require the realization of pain by the software engineering teams. However, most engineering teams only feel small pain – death by a thousand cuts – from software bugs, which is not usually enough to make significant changes. The real pain, for example from recalls, is felt elsewhere in the organization, too far away from the engineering executives to force changes.

OVPsim Release News

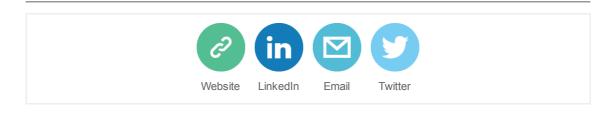
OVP: Fast Simulation, Free open source models, Public APIs: Open Virtual Platforms.

The Open Virtual Platforms™ (OVP™) 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 will be increasingly important, especially for multi-core designs. The resources on this portal can significantly accelerate your development and test.
- Explore what is new at **OVPworld!**

The current OVPsim release is 20150901.0 (September 2015)

- Please check the <u>release notes on OVPworld.org</u> for more details.
- The next release of OVPsim is expected to be available in December.



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