Imperas Newsletter: March 2017

"Silicon without software is just sand."

*Silicon without Software...
Is Just Sand...*
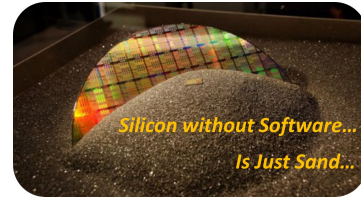
embedded world

See Imperas at the embedded world conference, March 14-16, 2017 in Nürnberg, Germany.

Imperas papers include "Fast Fault Injection to Evaluate Multicore Systems Soft Error Reliability" and "Using Virtual Prototypes to Improve the Traceability of Critical Embedded Systems" (with Magillem). Read more.

Imperas papers presented at previous embedded world conferences include:

- Imperas Paper at Embedded World 2015 on Parallel Simulation Accelerates Embedded Software Development Debug and Test
- Altera and Imperas paper at Embedded World, Nuremberg 2014 on Tools for Reliable Asymmetric MultiProcessor System Development

 Please see our resources page.

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

Eliminating Unintended Behaviors

The semiconductor industry has been focused on answering the problem – does a chip do what was intended. Today, another question is becoming equally important – is the chip capable of doing things that were not intended. Some unintended actions may be benign, but others directly translate into security risks and vulnerabilities.

Is this a design problem or a verification problem? Hardware or software? How are security issues divided/aligned between the two groups? What tools or technologies are most likely to help alleviate this problem at a reasonable cost? Read more.

New Imperas Tutorial Videos

Tutorials (you must be logged in to OVPWorld.org to view.)

Getting Started with OVP and Imperas: This tutorial is for a first-time user of the Open Virtual Platforms modeling and simulation technology. This is the first tutorial in the series. Watch these 7 chapters to see how to download, install, get licenses, use on Windows and Linux. It also covers how to set up a license manager and how to select between OVPsim and Imperas professional simulators. It shows you how to get started.

Using the Imperas Instruction Set Simulator (ISS): One of the simplest ways to run embedded software programs is using an Instruction Set Simulator (ISS). This tutorial introduces the Imperas ISS that is provided as part of the OVP/Imperas packages. The chapters show initial usage, the powerful tracing and debugging capabilities and provide an introduction to the Imperas professional Verification, Analysis, and Profiling (VAP) tools.

Creating Virtual Platforms: A virtual platform is a simulation model of a hardware platform. This tutorial introduces you to the Imperas / OVP approach of building models of a hardware board / system. It first explains the underlying component library mechanism and shows how to find out what components are in the library. By using components from the VLNV library, modules are created that model different hardware configurations. The chapters include using processors, memory, and peripheral components including system hierarchy.

Video: CEO Simon Davidmann Introducing Imperas Software

Imperas CEO Simon Davidmann answers key questions about the focus of Imperas,

Hybrid Simulation Picks Up Steam

New article in Semiconductor Engineering Systems Design, Jan 26, 2017, by Ann Steffora Mutschler with Simon Davidmann. As electronic products shift from hardware-centric to software-directed, design teams are relying increasingly on a simulation approach that includes multiple engines—and different ways to use those engines—to encompass as much of the system as possible. Read more.

Video: Software Verification for Low Power, Safety Critical Systems

Simon Davidmann speaks at DVClub Europe on "Software Verification for Low Power, Safety Critical Systems." View it here.

introducing key virtual platform terminology and technology, their main application areas, and how virtual prototypes reduce development time, improve quality, and expend less effort.

The video explains how the Imperas tools can help with this shifting left and the benefits Imperas users gain. View it here.

Video: Using the Green Hills Software MULTI Debugger with Imperas simulators and models

This video introduces the use of the GHS MULTI based debugger being used with the Imperas OVP Fast Processor models of the Renesas RH850G3M processor and with the Imperas simulators. View it here.

OVPsim Release News

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

The new Imperas and OVP release 20170201.0 became available February 2017.

The Open Virtual Platforms 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 May 2017.