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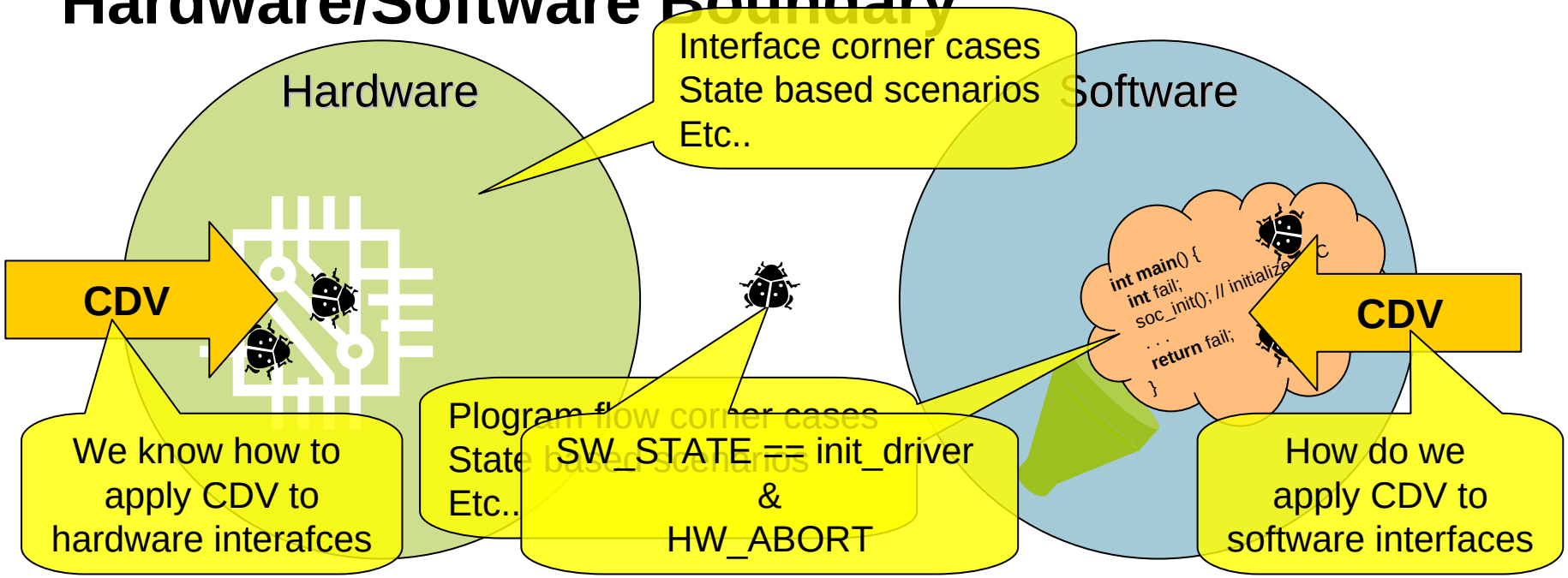
INVENTIVE

DAC 2009: Virtual Platform Workshop

Jason Andrews

Finding High-Value Bugs at the Hardware/Software Boundary



- How do we stress the hw/sw boundary?
- How do we know we thoroughly stressed it?
- How do we know it behaved correctly?

Coverage Driven Verification

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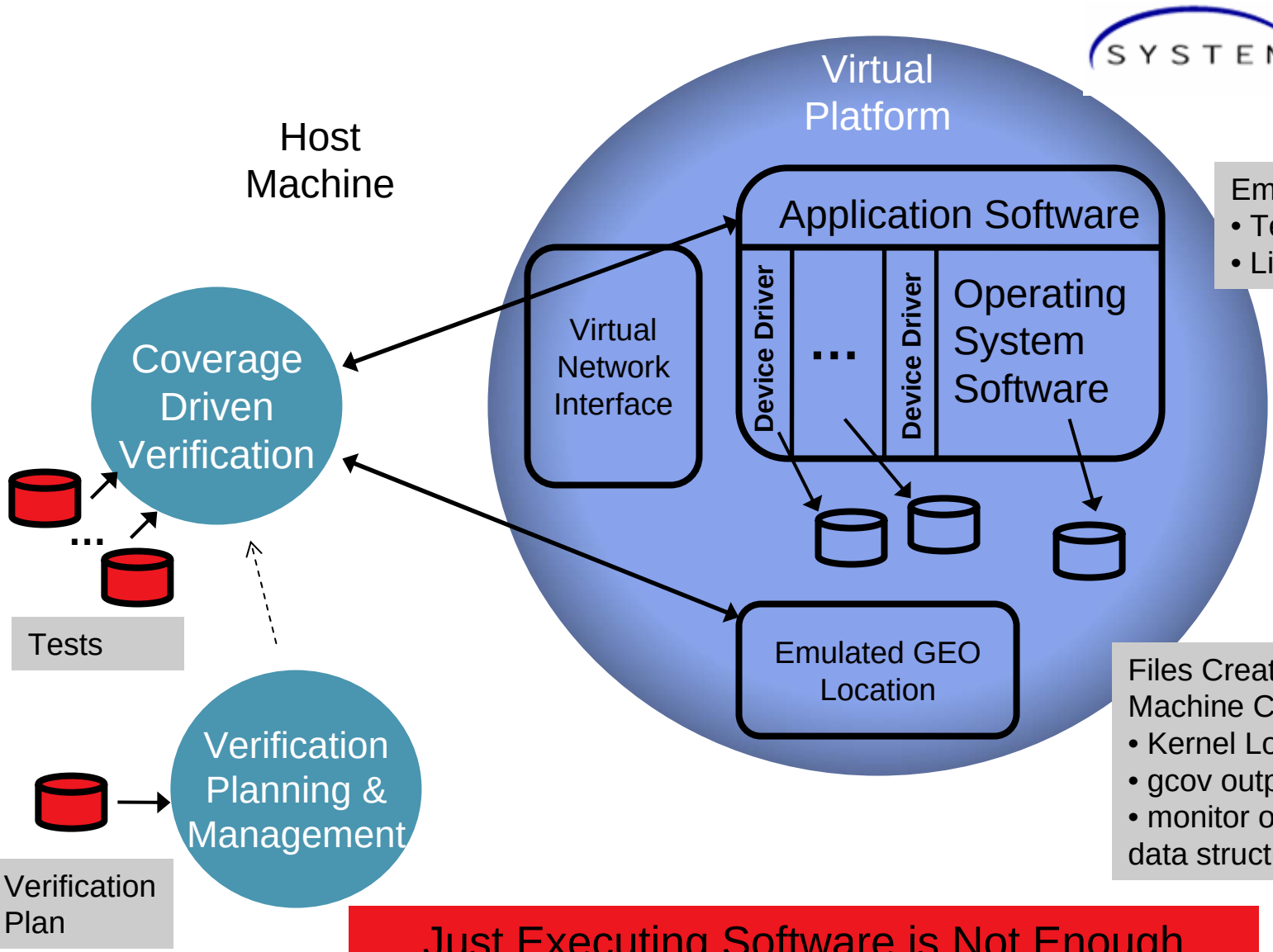
Improve Verification with Virtual Platforms



Embedded SW:
- Test Programs
- Linux 2.6 Kernel

Files Created On Virtual Machine Copied To Host:
- Kernel Log
- gcov output for driver
- monitor output for driver data structures

Just Executing Software is Not Enough

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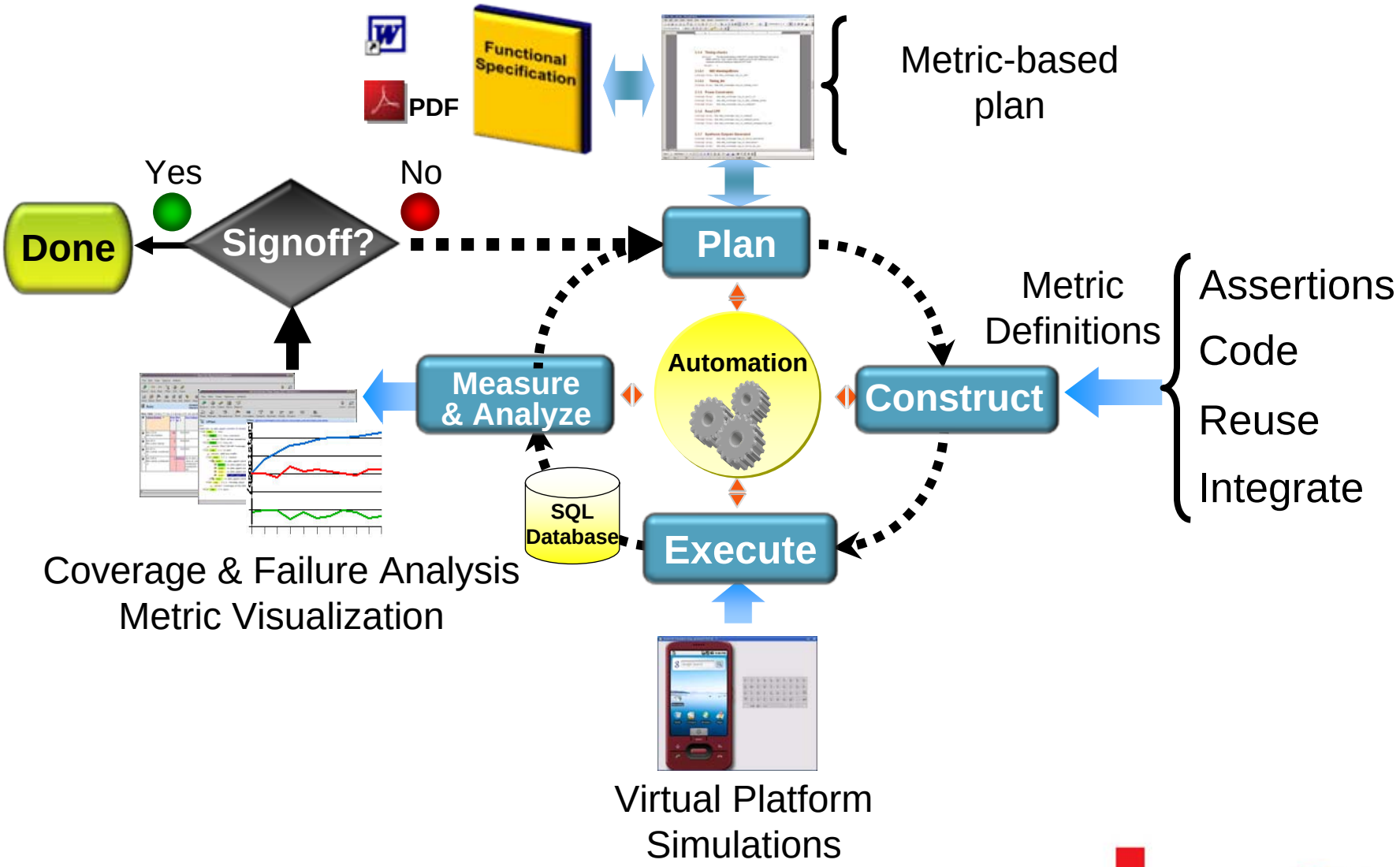
Expand to Metric Driven Verification



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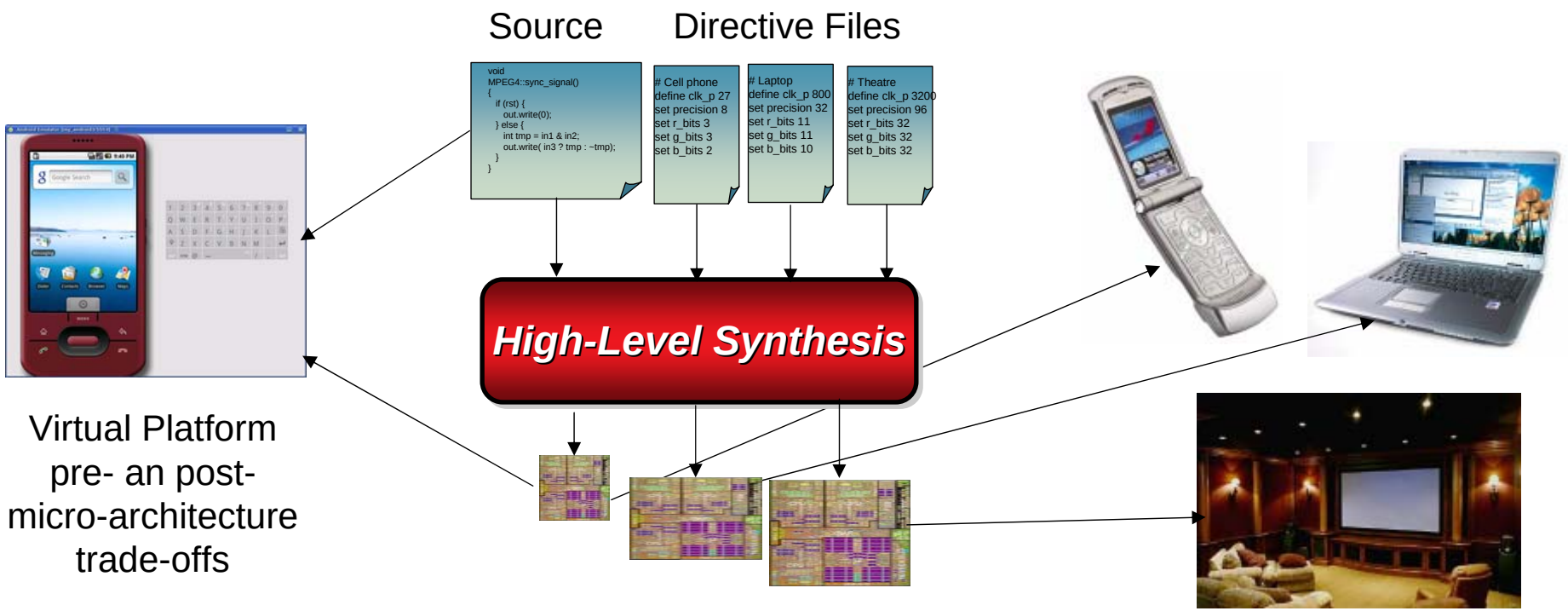
Connect Hardware Design Flow to Virtual Platform and Embedded Software

- Golden source-code drives implementation and verification
- Directive files govern implementation for each application



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Bio for Jason Andrews

Jason Andrews is an Architect at Cadence Design Systems, where he is responsible for embedded software and hardware/software co-verification products and methodology.

He is the author of the book "Co-Verification of Hardware and Software for ARM SoC Design" and a frequent blogger on cadence.com.

Jason holds a bachelor's degree and a master's degree in electrical engineering.

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