

# Impact of the Consumer Market on Electronic System Design

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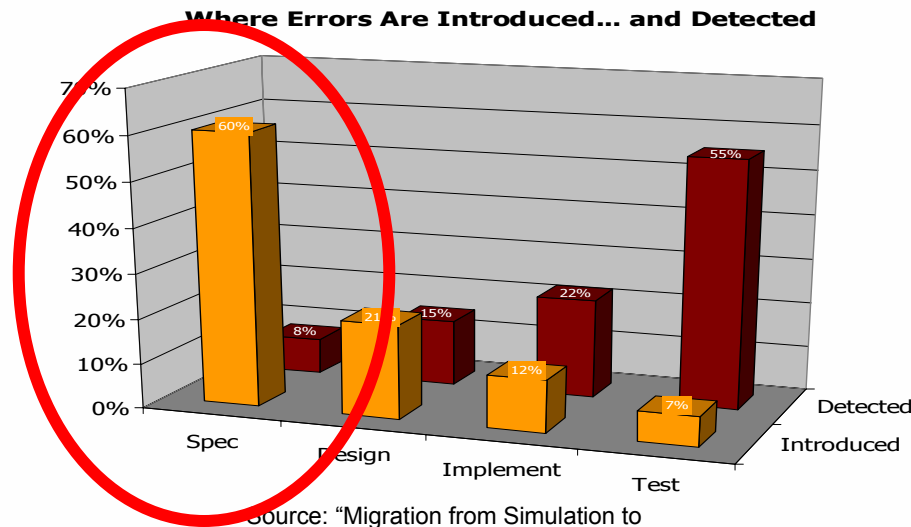
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# The "consumer market"

- Buyer is an individual, not a business
- Digital systems that interact with people and the analog world
  - Digital and analog electronics
  - Embedded software
  - Algorithm-intensive: signal processing and control
- Examples
  - Mobile phones and computers
  - Home, portable, and in-car entertainment & multimedia
  - Active safety systems, hybrid electric vehicles
  - Smart/robotic appliances
- Extreme time and cost pressures
- Distributed, multi-disciplinary development teams

Q: Shorter design turnaround times imply that hardware verification and software debug times have to come down. Are these opportunities for design productivity solutions or verification breakthroughs?

A: Both. But neither is enough to deliver order of magnitude productivity improvements.



Source: "Migration from Simulation to Verification with ModelSim®" by Paul Yanik. EDA Tech Forum, 2004 Mar 11, Newton MA

What's needed:

- Tools that eliminate errors at the source – the system specification
- Automated flows from system specification to implementation and verification

# Model-Based Design with MATLAB and Simulink Accelerate Consumer System Development

