

Plenary — Keynote Session: Connected, Smart Devices — Computing Beyond the Desktop

Moderator: I. Bolsens, IMEC, B

Speakers: Jerry Fiddler, Chairman and Co-founder of
Wind River Systems, USA

Wim Roelandts, CEO Xilinx, USA

With new emerging communication technologies, the market for set-top boxes, hand-held computers, networked home devices and Internet appliances is expanding rapidly and is driving the evolution of design tools. Whereas, in the past decade, the obsession of CPU speed has driven design strategies, in the future, design methodologies will be driven by the exponentially growing demand of information appliances requiring a short time-to-market and requiring connectivity as bandwidth proliferates. More and more designers will have to transition from the realm of CPU and memory design to the world of wireless network components that require sophisticated low power architectures, running real-time embedded software. As a consequence, semiconductor companies are rapidly evolving into system-on-chip companies. The chip designers have to deal with problems such as hardware/software co-design, low power design, system IP that includes digital functions and embedded memory.

Reconfigurable information appliances will proliferate far more rapidly than traditional personal computers, creating a much more diverse landscape. This shift presents tremendous opportunities but also new challenges for suppliers of design technology.