

General Architectural Concepts for IP Core Re-Use

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Large global semiconductors companies today face the challenge to enable the production of IP cores which are highly re-usable across the company. A widely known approach to tackle this issue is platform based System-On-Chip design for which application domain specific architecture templates and rules are imposed on the design of IP cores to ensure their applicability within the platform context. However, due to the convergence trend of digital technology for consumer products, certain IP core functions shall become applicable beyond a single platform context, which again leads to the challenge of re-usability. Instead of pure platform specific architectural concepts, general concepts enabling IP core re-use are required which shall act as foundation for platform based design.

The presentation will introduce concepts such as IP-core/system abstraction and generic IP core interfacing. Furthermore an application example from product development will be given.