COSYNTH

GmbH & Co. KG

Embedded Systems

CoSynth GmbH & Co. KG is a spin-off from the OFFIS – Institute for Information Technology in Oldenburg, Germany. CoSynth develops and distributes design tools for embedded systems and offers design services and consulting in this domain. Both the design tools and the services are based on a novel, innovative and unique technology and methodology. This guarantees a very efficient, i.e. fast and less error prone, HW/SW development. Design times are reduced to less than a quarter of nowadays commonly used design processes.

CoSynth offers design methodology and tools to its customers within the following services and consultancies:

- Development of FPGA and ASIC designs
 - Hardware accelerators
 - System on chip
 - PCB design
- Virtual prototyping and co-simulations (SystemC, Matlab/Simulink, VHDL, Verilog)
- Development of embedded software (e.g. Firmware, RTOS)
- Consulting and training in SystemC, TLM, and ESL design flows

Moreover, the design tools can be evaluated and licensed for in-house use at our customers. CoSynth's software tools are developed to integrate into existing design processes instead of replacing them. They can, e.g., be used in conjunction with design tools and FPGAs from Xilinx and Altera.

The foundations of the CoSynth design methodology have been developed in the course of several European research projects conducted by the OFFIS Institute. The tools have been successfully used by project partners from ICT and automotive industry. The main advantages of the technology are:

- Concurrent development of hardware and software in a common model
- Introduction of software engineering methods for hardware design
- Use of C-based languages (C/C++, SystemC, TLM)
- Automatic generation of hardware/software interfaces
- Automatic generation of hardware implementations (High Level Synthesis)
- Easy integration of (legacy) IP cores
- Rapid exploration of HW/SW partitioning and communication structure alternatives

Contact

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