COSIDE® by COSEDA Technologies
The Design Environment for Heterogeneous Systems

System Level Environment

The design platform COSIDE® from COSEDA Technologies is the perfect tool to simplify system modeling, simulation, design traceability, system integration and verification.

It is the first commercial design environment to develop and design innovative analog and digital systems based on the SystemC and SystemC AMS standards (IEEE 1666-2011/ IEEE 1666.1-2016).

Overall System Modeling

COSIDE® is closing the gap between the analog & digital as well as between the hardware & software world. It therefore allows a holistic design approach by considering the different worlds of development jointly. COSIDE® enables overall system modeling, hardware/software co-design, verification and virtual prototyping for different levels.


COSIDE® enables:

- **Modeling & Design**
Easily create virtual prototypes for your hard and/or software development. Start with a library of 600+ elements, including among others RF, communication, automotive, power electronics as well as mechanical models. COSIDE® allows you to design abstract models which are extremely fast, accurate, reusable and free to run without a need for a license. During the following development, the system level model is your golden reference, which together with COSIDE® provides an automated path

from the algorithm via concept/system down to the implementation level, always kept in sync to the originating system level.

- **Design Sharing**
During this flow, it can be down and up streamed to and from numerous EDA design tools within your company or even to your costumers by using the import and export capabilities at one of the various levels of encryption.
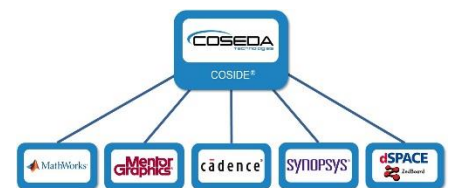
- **System Level Verification**
Create a common test environment for your models including hard and software, fault injection and regression. Reuse it on all design levels down to the lab. Maintain productivity and feasibility of the verification task by the use of advanced digital and analog mixed signal regression and check features also deployable to a continuous integration environment.

COSEDA Technologies GmbH
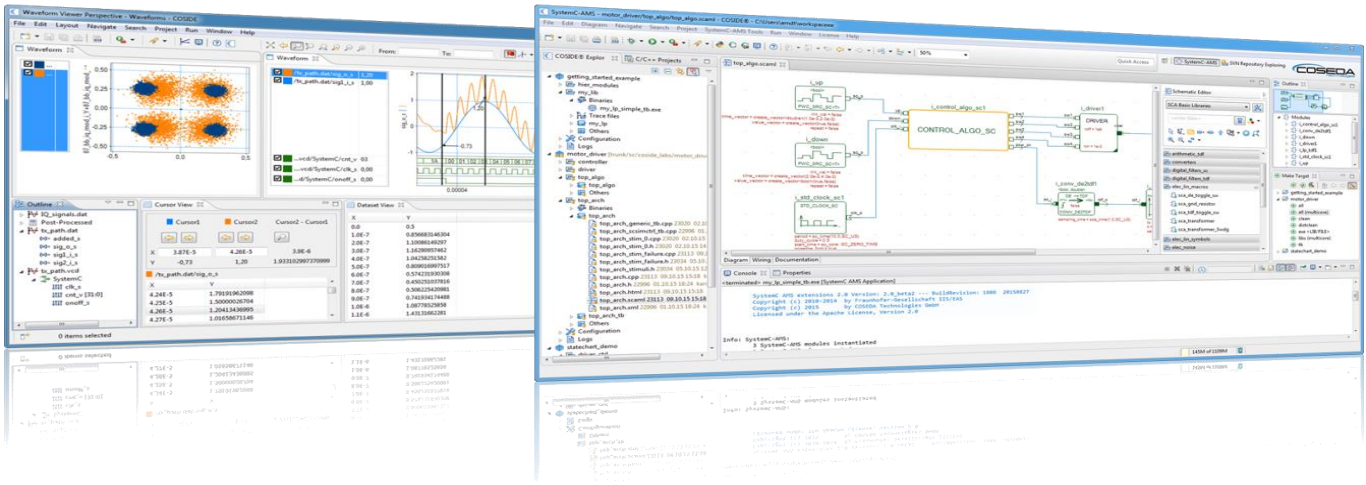Koenigsbruecker Str. 124
01099 Dresden, Germany

Your contact:
Thomas Hartung
Phone +49 351 321 490 00
Thomas.Hartung@coseda-tech.com

www.coseda-tech.com

Main Features of COSIDE®

- Analog and mixed-signal HW & SW models
- License free simulation
- Tool independent model distribution and execution
- IP protected customer models
- 600+ library elements
- Easy-to-use schematic design entry
- Automated code generation
- Scriptable mixed signal wave viewer
- Integrated version control
- Supported OS: Windows & Linux
- Full SystemC and SystemC AMS support (IEEE 1666-2011/ IEEE 1666.1-2016)
- Transaction Level Modeling (TLM)
- Spice integration
- Virtual platforms including all mayor processor models (ARM, Intel etc.)
- IP-XACT support
- Excel import/export
- Support of an ISO 26262 conform design process
- Model import/export with numerous simulation tools (Matlab, Cadence, Synopsys, etc.)
- Advanced analog & digital checker capabilities
- Block-level verification
- Formal verification
- UVM and assertion-based mixed-signal verification and regression testing
- System-level Monte Carlo simulation
- Continuous integration support for all verification and testing tasks
- Re-use of verification scenarios in the lab (Design to Test)

Motivation to use COSIDE®

Time and cost reductions combined with a significant increase of quality are the key benefits for our users. SystemC AMS in combination with COSIDE® is an approach for solving highly complex tasks.

- **Time to market reduction** due to parallel development of hard- and software components, re-use of tests over various design levels and a significant reduction of the simulation time are just a few important reasons.

- **Cost reduction** is achieved as a result of a shorter development time and, moreover, in a simple PC setup and reduction of complex physical test equipment.

- **Quality improvement** is the result of verification enhancements. The new verification possibilities of software components, analog/mixed-signal systems and complex hard-/software systems together with the use of continuous integration are only some of the benefits of COSIDE®.

With COSEDA to System Level Design

Customer proximity is our strength. Our experienced team of engineers is focused on your individual needs and can react with a maximum amount of flexibility. We accompany the entire implementation process of COSIDE® on your side and offer additional services and trainings to qualify designers for the latest solutions as well as for future tasks in system level design.

- **Conception and Implementation:**
The COSEDA Technologies Team demonstrates the performance of COSIDE® within the process of an evaluation to show its feasibility. We also provide comprehensive technical assistance to accompany the transfer and to guarantee an efficient implementation of COSIDE®.

- **Support Service:**
We offer individual and customer specific services. Therefore you have the option to take advantage of our technical support for your future developments.

- **Trainings and Workshops:**
We offer additional workshops and custom trainings to qualify designers for future tasks in system level design.

COSEDA technologies