

Metrics and Tools for Improving Chip Design Productivity

Abstract

Production productivity and yield were key performance indicators in the semiconductor industry for many years. With today's drastically increased complexity of chip designs, ongoing shrinkage of market entry windows as well as product life cycles due to intensified global competition and the irresistible expansion of the fabless model another kind of productivity becomes the dominating factor: productivity of chip design. That includes the amount of resources needed to do a specific design project as well as the duration of that project.

Rising complexities, limitations on available and manageable team sizes and cost issues result in an indispensable demand for drastically enhancing chip design productivity. Another problem is that the productivity of the circuit developers can not be indicated exactly enough. Knowledge of productivity is imperative to increase the ability to plan development projects.

The company presentations of edaForum07 aim at providing chip designers and project managers of chip design projects with means to measure and to improve their chip design productivity. In a tutorial Martin Radetzki will give an introduction to metrics for measuring productivity, to state-of-the-art solutions in the industry completed as well as to some ongoing research in this field. Following that introduction leading EDA vendors will discuss and present available solutions for measuring and improving your productivity in a panel discussion and an exhibition.

Date, Time

Thursday, Dec. 6, 2007, 9.00 am – 1.00 pm

Location

Marriott Hotel Munich, Salon A/B, Berliner Str. 93, 80805 Munich

Participating companies:



Registration:

Ms. Maren Sperber, +49 511 762-19699, sperber@edacentrum.de

Registration Deadline: November 30, 2007

Program

09:00 am – 09:40 am

Tutorial: "Metrics for productivity and how to use them?"

Martin Radetzki, University of Stuttgart

To achieve higher design productivity is an important motivation for investments in EDA tools. EDA users and EDA suppliers would benefit from quantitative productivity measurement as an enabler to optimize the allocation of their investments. However, the non-uniform and immaterial nature of the produced goods, "electronic designs", complicates the definition of a productivity metrics. This presentation gives an overview of the fundamental techniques used in state-of-the-art productivity measurement approaches and points out potential for improvement. We review the current R&D activities in this field and point out the need for cooperation between EDA users and suppliers to facilitate more detailed and meaningful metrics.

09:40 am – 10:30 am

Panel: "Metrics and Tools for Improving Design Productivity"

Moderator: Jürgen Haase, edacentrum

The panel will discuss metrics and tools which are already available to the designers in order to support their productivity.

10:30 am – 12:00 pm

Exhibition

Coffee Break in parallel sponsored by:



The Exhibition complements the tutorial and the panel with individual presentations and demonstrations of the participating EDA vendors:

Cadence Design Systems GmbH
ChipVision Design Systems AG
Concept Engineering GmbH
CST GmbH
MunEDA GmbH
OneSpin Solutions GmbH
Synopsys GmbH

12:00 pm – 1:00 pm

Lunch

All participants are invited to a sponsored lunch.

Registration

Ms. Maren Sperber

Phone: +49 511 762-19699 E-mail: sperber@edacentrum.de

Registration Deadline

November 30, 2007

Webseite:

<http://www.edacentrum.de/edaforum/cp/>

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