# 3D Modeling of Electronic Designs and Reporting of Results

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2014-10-09

## Introduction

Viewing of design models and analysis results are two important aspects in modern electronic design. A good viewing experience can greatly enhance the understanding and perspective of the designers and reviewers.

## Existing Environments and Issues

The existing viewing and reporting facilities are almost exclusively attached to the simulation engine. The pre- and post-processing tools designed for modeling and result viewing/reporting are provided by simulation software vendors each having its own GUI schemes menu stacks and keystroke combinations. A large part of the user experience is to learn how to do modeling and view results in these disparate GUI environments.

## A New Approach in Modeling and Viewing – Modularization

Simulation and their associated pre-processing model creation and post-processing data analysis have drastically different user requirements for any given task. Simulations are distinctively algorithm and computation intensive. Pre- and post-processing focus on models, data and viewing experiences.

The development of simulation engines are largely driven by algorithmic requirements, while the development of pre- and post-processing engines are mostly driven by the interaction of humans with models and data.

Consequently, the key in developing a “good” pre- and post-processing engine is not to maximize its functionality, but to modularize it to a point where an average user of the system can interact with it confidently and easily.