

## - PRESS RELEASE -

### CST Introduces Significant New Features for EDA Simulation

**Munich, Germany, November 11, 2014: CST - Computer Simulation Technology AG (CST) will be presenting the new features for EDA simulation in CST STUDIO SUITE 2015 at Electronica 2014, booth A1.262.**

Electromagnetic simulation can be of great benefit to electronic engineers interested in signal integrity (SI), power integrity (PI) and electromagnetic compatibility (EMC) on PCBs and packages, by making it possible to analyze the performance of virtual prototypes before tape-out.

In order to be most effective in the EDA workflow, simulation should be fast and accurate and offer a more detailed understanding of the causes of SI/PI and EMC issues than measurement alone can provide. For this reason, CST is introducing several new features in CST STUDIO SUITE 2015 which have been developed to accelerate the simulation process and make it easier for users to analyze and optimize their designs.

Before any simulation can begin, a mesh needs to be created to discretize the structure. CST STUDIO SUITE 2015 introduces a new tetrahedral meshing algorithm which is optimized for printed electronics. This algorithm exploits knowledge of the general structure of imported models such as PCBs and packages to assemble and mesh them much faster. For frequency domain simulations of complex packages, this can reduce the total meshing time sevenfold.

Another significant new feature is the introduction of Pareto frontier optimization for decoupling capacitors. The placement of decoupling capacitors can significantly improve the PI performance of a PCB, but also increases the cost of fabrication. With Pareto frontier optimization, the software can automatically balance the two competing design goals and find the combination of capacitors that minimizes the cost while meeting the design requirements.

Alongside these major improvements, CST STUDIO SUITE 2015 also includes a range of other performance and productivity improvements developed to make the integration of simulation into the EDA workflow easier and more powerful. More information about CST's EDA offering can be found at Electronica 2014 at the CST booth, A1.262.

### **About CST**

Founded in 1992, CST offers the market's widest range of 3D electromagnetic field simulation tools through a global network of sales and support staff and representatives. CST develops CST STUDIO SUITE, a package of high-performance software for the simulation of electromagnetic fields in all frequency bands, and also sells and supports complementary third-party products. Its success is based on a combination of leading edge technology, a user-friendly interface and knowledgeable support staff. CST's customers are market leaders in industries as diverse as telecommunications, defense, automotive, electronics and healthcare. Today, the company enjoys a leading position in the high-frequency 3D EM simulation market and employs 250 sales, development, and support personnel around the world.

CST STUDIO SUITE is the culmination of many years of research and development into the most accurate and efficient computational solutions for electromagnetic designs. From static to optical, and from the nanoscale to the electrically large, CST STUDIO SUITE includes tools for the design, simulation and optimization of a wide range of devices. Analysis is not limited to pure EM, but can also include thermal and mechanical effects and circuit simulation. CST STUDIO SUITE can offer considerable product to market advantages such as shorter development cycles, virtual prototyping before physical trials, and optimization instead of experimentation.

Further information about CST is available on the web at <https://www.cst.com>.

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### **Downloads**

Graphics are available to download from

[https://www.cst.com/Content/News/news\\_item\\_214/2014-10-Electronica-screenshot.jpg](https://www.cst.com/Content/News/news_item_214/2014-10-Electronica-screenshot.jpg)

“The Pareto frontier decoupling capacitor optimization tool in CST STUDIO SUITE 2015. Shown is the optimal solution compared against two suboptimal solutions.”