

- PRESS RELEASE -

## Breakthrough in Frequency Domain Mesh Adaptation

**Amsterdam, 28<sup>th</sup> October 2008, CST - Computer Simulation Technology AG (CST) announces True Geometry Adaptation at EuMW 2008, booth #903-905.** This represents a breakthrough in high frequency tetrahedral frequency domain solver mesh adaptation schemes. This innovation will be available with version 2009 of the electromagnetic simulation software CST MICROWAVE STUDIO® (CST MWS).

Users of CST MICROWAVE STUDIO® (CST MWS) version 2009 will benefit from the total revision of its tetrahedral frequency domain solver's mesh adaptation scheme. Traditionally, adaptive mesh refinement of HF frequency domain solvers, based on a tetrahedral grid, does not improve on the initial, faceted representation of the structure. The originally created tetrahedra are just divided further where necessary. Here the mesh adaptation will converge, not to the results (e.g. S-parameters) of the actual structure, but to those of the initial, segmented model.

CST's new mesh adaptation approach is different. The nodes of the newly created tetrahedra are not simply placed on the edges of already existing ones, but they are projected back to the input model, they literally "snap" to the original geometry. With the release of CST MWS version 2009, CST is the only commercial vendor to offer a high frequency Finite Element type solver that accurately converges to the real solution, even for rounded structures. This new technology is another milestone in CST's history.

"Once again, CST's has achieved a breakthrough in simulation technology," commented Dr. Bernhard Wagner, Managing Director, Sales and Support, CST. "Insightful market intelligence and pioneering development ensures that our software and its users stay several steps ahead of the field."

### **About CST**

CST develops and markets high performance software for the simulation of electromagnetic fields in all frequency bands. Its success is based on the implementation of unique, leading edge technology in a user-friendly interface. CST's customers operate in industries as diverse as Telecommunications, Defence, Automotive, Electronics, and Medical Equipment, and include market leaders such as IBM, Intel, Mitsubishi, Samsung, and Siemens. With 150 employees worldwide and a network of qualified distributors, over 190 people are dedicated to the development and support of its EM products in more than 30 countries.

CST's flagship product, CST MICROWAVE STUDIO® (CST MWS) is the market leader in Time Domain simulation. It enables the fast and accurate analysis of high frequency (HF) devices such as antennas, filters, couplers, planar and multi-layer structures and SI and EMC effects. CST MWS offers 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 [www.cst.com](http://www.cst.com).

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***Graphics***

A figure illustrating the advance in meshing technology enabled by True Geometry Adaptation can be downloaded: [www.cst.com/content/news/documents/news\\_item\\_127/CST\\_S2\\_TGA\\_PR\\_graphics.zip](http://www.cst.com/content/news/documents/news_item_127/CST_S2_TGA_PR_graphics.zip)