

**- PRESS RELEASE -****CST STUDIO SUITE 2017  
Simulation at Every Scale**

**London, UK, October 4, 2016, CST - Computer Simulation Technology AG (CST) will preview the upcoming version of its flagship electromagnetic (EM) simulation tool, CST STUDIO SUITE® 2017, at European Microwave Week (EuMW) 2016, booth #5.**

CST STUDIO SUITE is used by engineers, designers and researchers in market-leading companies in industries including automotive, aerospace, defense, electronics, healthcare and telecommunications. CST's Complete Technology approach to simulation means that CST STUDIO SUITE offers a range of both general purpose and specialized solvers for EM and multiphysics problems in one user-friendly interface.

Accurately simulating the phenomena that appear when components are combined into systems has long been a priority for CST®, and CST STUDIO SUITE 2017 includes several new features which allow individual components to be combined and simulated effectively.

Brand new in CST STUDIO SUITE 2017 is Filter Designer 3D (FD3D) – a design and synthesis tool for cross-coupled cavity filters. With FD3D, filter designers can design for arbitrary filter response with easy placement of transmission zeros and a wide range of coupling resonator topologies available to realize the corresponding filter response. FD3D can also extract the coupling matrix which helps to analyze and tune a device, and is the first commercial product to include diplexer filter synthesis. When combined with CST's unique moving mesh technology and the advanced trust region framework optimizer, FD3D allows the user to design complex high order and multimode cavity filters with unprecedented precision.

The asymptotic solver, CST's ray-tracing (SBR) solver for the analysis of very large platforms, makes a significant advance with the introduction of antenna-to-antenna coupling. Antennas can be imported as nearfield or farfield sources and integrated on the platform, and the asymptotic solver can calculate the coupling parameters between them. This feature is especially useful for system integrators because antenna field sources can be imported from a variety of solvers or from measurement. Data from a wide variety sources can be brought together in a single system-level simulation. Combined with the new nearfield monitor, users can now identify the coupling paths between antennas efficiently, and the new Interference Task can identify potential EMC issues caused by co-site interference.

CST STUDIO SUITE also sees significant improvements to its class leading Array Designer. The current version of the array wizard already allows users to design and synthesize antenna arrays, from individual elements up to full arrays. The 2017 version will add support for non-periodic and arbitrary 3D arrays, automatically constructing the full 3D simulation models. Even large arrays can then be simulated accurately and quickly, on modest hardware, using CST's numerically efficient time domain solver with conformal meshing technology.

CST staff will be available at booth #5 to discuss these and the other new features. In addition, CST will be hosting the Modeling Challenge powered by CST STUDIO SUITE Student Edition, and invites attendees to participate for the chance to win in the prize draw.

*"Full-system simulation is becoming increasingly important for our customers across a range of industries and fields, whether they're designing a device such as a cross-coupled filter, an antenna array, or integrating multiple components on a platform such as a phone or an aircraft," commented Dr. Peter Thoma, Managing Director R&D at CST. "European Microwave Week is an excellent opportunity to talk to engineers working on all of these problems, and so we're excited to be able to unveil CST STUDIO SUITE 2017 there, and look forward to hearing visitor feedback."*

### Highlights of CST STUDIO SUITE 2017

- General
  - Shared 3D component library
  - Parametric tuning
  - Poser for voxel models
  - Interference Task for co-site interference analysis
- Transient solver
  - New port types
  - Automatic detection of identical ports for arrays
  - Lossy metal with coating and surface roughness
  - Anisotropic thin-panel material
- Frequency domain solver
  - Lumped element SPICE circuits integrated in 3D model
  - Automatic workflow wizard for biased ferrites
- Integral equation solver
  - Tabulated surface impedance material
  - Automatic creation of nubs for wire antennas
- Asymptotic solver
  - Antenna-to-antenna coupling
  - 2D nearfield monitors
- Multiphysics
  - Conjugate heat transfer solver for electronics cooling

- Moving media for thermal simulation

### **Availability**

CST STUDIO SUITE 2017 is due for release at the end of Q1 2017.

### **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 300 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>.

### **For further information please contact:**

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