Zeland IE3D Version 12.12 Features RFID Antenna Design Tools

Source: Mentor Graphics, formerly Zeland Software, Inc.

Zeland software announces the release of IE3D Version 12.12, the company's method-of-moments-based electromagnetic (EM) software for high performance network distributed simulation and optimization. IE3D V12.12 introduces the Conjugate Match Factor special for RFID antenna designers.

Features of Version 12.12 include:

1. Introduction and Implementation of Conjugate Match Factor (CMF) in IE3D V12.12.

   IE3D and FIDELITY are suited for RFID designs. CMF allows us to judge how good an RFID antenna is when the chip impedance and the basic configuration are given. An article on using Zeland tools for RFID design is included in the Documents folder of the Zeland Products.

2. IE3D FastEM Design Kit for real-time full-wave EM design in IE3D V12.

   IE3D FastEM Design Kit allows you to parameterize both planar and 3D structures, perform high accuracy and efficiency IE3D simulations on the structure, and extract the FastEM signature from the simulation results. The FastEM signature allows you to perform real-time EM tuning, optimization, and synthesis.

3. High Performance and Robust Network Distributed EM Simulation and Optimizations on IE3D, ZDS and ZDM 12.1.

   The new implementation ZDS and ZDM makes use of new technology for distributing and management of network EM simulations and optimizations. It helps distributed and multi-license IE3D users to improve IE3D simulation efficiency by a factor of 10. The IE3D/ZDS/ZDM 12.1 allows secured distributed EM Simulations, FastEM for parameter sweeping EM simulations and distributed EM Optimizations.

4. Multi-fold speed improvement and multi-CPU support for improved efficiency in IE3D V12.

   The speed of IE3D engine is improved without multi-CPU support. With multi-CPUs, you can finish your jobs much sooner in higher quality.

5. Equation-based schematic-layout editor with Boolean operations for flexible geometry editing and parameterization in IE3D V12.

   IE3DLibrary is further improved. It allows you to create complicated layouts with parameterized objects in a schematic way. All dimensions of the objects are equation-based. Thanks to the implementation of Boolean objects and void

objects, users can create structures beyond the coverage of the limited object types available in the library. Users can use Boolean objects to create any shape and use void objects to combine objects together for sophisticated structures.

6. Lumped element equivalent circuit automatic extraction and optimization for convenient circuit designs.

   Lumped element equivalent circuits are needed for modern RFIC designs and signal integrity. IE3D 12 simulations yield the frequency dependent lumped element equivalent circuit models automatically. Users can visualize the parameters. Users can also optimize the circuit parameters to achieve desired goals.

7. Improved integration into Microwave Office from Applied Wave Research

   The EM Socket for IE3D integrated into MWO is further improved to provide stable seamless IE3D integration into MWO.

There are many other improvements on the IE3D Release 12 over the previous version. V12.1 is available for download from the web, and those users who received ZPM 12 can download the installation and use it immediately. For those users using the ZPM 11 and having maintained IE3D licenses, please contact us at: support@zeland.com to receive a free update on the ZPM 12.1. Other users please contact us for an upgrade to your existing licenses or purchase new licenses to try the IE3D V12.1.