PRESS RELEASE

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Immunity simulation added to ApsimSPE

San Jose, California-February, 2008. Applied Simulation Technology has added Immunity simulation capability to the ApsimSPE product line. ApsimSPE is the company's Signal Integrity, Power Integrity and EMI simulator. Immunity simulation is used to predict a design's susceptibility to various noise sources. The noise can be from sources in the design or from the outside. There are two main types of noise, conducted and Electro/magnetic fields. SI Engineers are familiar with the conducted type as unwanted induced voltage or current on signal and power. EMI Engineers however are more interested in radiation or field strength. The Electromagnetic emission of a design is important for meeting FCC specs. High EMI may expose electronic devices to interference, which leads us to Electromagnetic emissions susceptibility. An IC exposed to high levels of Electromagnetic fields can be damaged or malfunction. One such concern is ESD. ESD events can cause damage to IC's and therefore designing for immunity and an understanding to the problem is needed.

ApsimSPE can simulate the induced voltage or current along signal and power/gnd traces on a PCB or IC package. The Engineer can view waveforms in the time domain or a visual map of the current/voltage distributions in the frequency domain. For those interested in the Electromagnetic fields can be viewed at the component pins at the board level. Outside noise events are added through use of a pseudo noise source using the ApsimTOPOL and ApsimAAIF CAD Editor. The Viewer/Editor allow the addition of layers, components and patterns. In this way a particular EMI or ESD event from an outside source can be simulated. The results, viewed at the IC's pins can then be evaluated. ApsimSPE can be applied to specific areas or whole board simulation can be performed.

The ApsimSPE product includes Signal Integrity, Power Integrity and EMI simulation considering the effects of imperfect power/ground for a full board with digital and analog circuits. The distributions of current/voltage/impedance and fields are displayed graphically. The product is used in the frequency domain to extract S-parameters or to conduct resonance analysis. In the time domain it displays the voltage and currents at the nodes of interest.

ApsimSPE is tightly integrated with ApsimRADIA, the company's EMI solution. Using ApsimSPE makes EMI simulation of the whole board possible. Imperfect modeling of the PWR/GND system using circuit compression and partition techniques allows accounting for both common mode and differential mode EMI. ApsimRADIA can use non-linear SPICE, IBIS or simplified behavioral models, for fast and/or accurate analysis.

Applied Simulation Technology is an EDA industry pioneer in the area of Electromagnetic modeling, extraction and simulation. The company was established in 1996 to offer Engineers novel but accurate solutions to tough Electromagnetic problems. Apsim's products are used world wide for the electrical design and analysis of IC packages and PCB.

The product is available on both Windows 32bit/64bit and Sun Workstations (Solaris) operating systems with stand alone or parallel processing. For more information contact:

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