

new products

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Andreas Mandelis

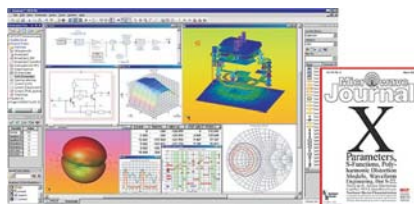
Focus on software

Software for oscilloscopes and waveform generators

An updated software package has been introduced by ZTEC Instruments for its M-class oscilloscopes and waveform generators in PCI, PXI, VXI, and LXI platforms. The M-class consists of instruments in the ZT4200–4600 series with a 500 MS/s to 4 GS/s real-time sampling range and an 8- to 14-bit ADC resolution range. Windows 7 and 64-bit Windows are now supported by the M-class instruments in all available platforms. The standard software delivered with all the company's instruments includes drivers for common programming environments (C/C++, IVI-C, LabVIEW, and COM), ZWave or ZScope control software, and the ZFind Resource Manager. In addition, ZFind's easy three-step process of search, select, and add allows LXI users to discover their instruments without knowing the IP address. That enhancement is available in both Windows and Linux. *ZTEC Instruments, 7715 Tiburon Street NE, Albuquerque, NM 87109, <http://www.ztecinstruments.com>*

X-parameter simulation software

The recently released Genesys 2010 from Agilent Technologies is an upgrade of its RF/microwave design software. Used by circuit board and subsystem designers, the software now includes nonlinear X-parameter simulation and modeling technology to enable accurate and convenient RF non-



linear circuit and system designs. Genesys 2010 provides a cost-effective design environment for deploying X-parameters, which are the rigorous mathematical extension of the company's S-parameters for linear and nonlinear modeling. X-parameter modeling technology is also fully integrated into the Genesys nonlinear circuit simulator, so that X-parameter models with load-pull impedance and bias dependence can be used in nonlinear circuit design and for co-simulation with the Genesys Spectrasys system simulator. For the first time, nonlinear circuits can be accurately tuned or optimized to meet system simulation without the need for multiple step optimization. *Agilent Technologies Inc, 5301 Stevens Creek Boulevard, Santa Clara, CA 95051, <http://www.home.agilent.com>*

Onboard intelligence with 64-bit software

Data acquisition and control systems from Microstar Laboratories can now run in 64-bit Windows systems, including Windows 7, thanks to the new version 5.0 of the DAPtools software packages. All DAP (data acquisition processor) boards and xDAP systems use DAPtools. The three editions of the DAPtools 5.0 packages—basic, standard, and professional—are ready to use with DAP boards and xDAP systems immediately upon installation. The DAPtools 5.0 basic edition is downloadable from the company website. Every DAP board and xDAP unit includes onboard intelligence: a processor running a real-time operating system. The DAPtools communicate among themselves, working concurrently with Windows processing. They can communicate within one PC or across a network. Windows applications configure the operations on each DAP board, where the real-time DAPL operating system manages the hardware control and real-time activity. *Microstar Laboratories Inc, 2265 116th Avenue NE, Bellevue, WA 98004, <http://www.mstarlabs.com>*

Integral equation solver

Ansys has released the 12.1 version of its high-frequency structural simulator (HFSS) software, a 3D full-wave electromagnetic field simulation. The product introduces a new integral equation (IE) electromagnetic solver option, based on the 3D full-wave method of moments, that can be implemented in the HFSS desktop. The technology is effective for large-scale radiating and scattering simulation studies. For example, an aircraft system integrator interested in antenna placement or radar cross-section studies can accurately simulate and design with the IE solver, reducing prototype iterations, cost, and time to market. The HFSS IE solver is suitable for modeling open or radiating problems. It computes the currents on the surfaces of objects and uses those currents to accurately determine the radiated or scattered fields. The IE solver provides an automatically adapted and conformal triangular mesh for accuracy. It can use field results from the HFSS finite element method solver as a sourcing excitation. *Ansys Inc, Southpointe, 275 Technology Drive, Canonsburg, PA 15317, <http://www.ansys.com>*

Image analysis software

Craic Technologies' ImageUV microscope camera control and image analysis software running on Windows 7 features enhanced stability and advanced memory management. The ImageUV software allows for quick windows resizing, icons that are easier to see, speedy access to often-used documents, and spectra with jump lists. Windows Search gives engineers and scientists the ability to locate and quickly analyze data. According to the company, Craic microscopes that use ImageUV software on Windows 7 will exhibit improved speed, responsiveness, and reliability of the operating system. *Craic Technologies Inc, 948 North Amelia Avenue, San Dimas, CA 91773, <http://www.microspectra.com>*

High-speed demultiplexer

The EV10CS140TP series of high-speed, 10-bit, 3-Gsps demultiplexer (DMUX) from e2v features low-voltage differen-

tial signaling (LVDS). The DMUX is compatible with differential data and clock inputs for easy interface with digital signal processors (DSPs) and standard field programmable gate arrays (FPGAs). Applications include high-speed data storage, test instrumentation, and automatic test equipment. Because of its ability to track the analog-to-digital converter (ADC) output sampling rate over a wide operating frequency and temperature range, the DMUX can be used as a standalone device for digital processing or as a companion chip for e2v's high-speed ADC. With suitable LVDS buffers, the DMUX can interface with standard 100-ohm differentially terminated FPGAs and DSPs. The EV10CS140TP series is now available in industrial ($-40^{\circ}\text{C} < T_a < 85^{\circ}\text{C}$) Restriction of Hazardous Substances Directive grade versions in an enhanced ball grid array 240-pin package ($25 \times 25\text{ mm}$). *e2v technologies plc, 106 Waterhouse Lane, Chelmsford, Essex, CM1 2QU, UK, <http://www.e2v.com>*

Lens design software

Version 6.5 of Lambda Research Corp's OSLO lens design software includes 12 program enhancements and improvements to the OSLO 6.4 release. Among them are an updated Zemax and CodeV translator, an updated Forbes asphere surface type, and a new tabulated surface type for the creation of faceted Fresnel and other lenses. It is both Windows 7 and Vista compatible. The release also has updated glass and vendor lens catalogs. Imaging systems that can be designed with OSLO software include photolithography, optical metrology, and astronomical telescopes. A free OSLO EDU edition and the new OSLO user guide can be downloaded and a free 30-day trial for OSLO Premium can be requested from the company's website. *Lambda Research Corporation, 25 Porter Road, Littleton, MA 01460, <http://www.lambdaresearch.com>*

USB-based digitizers

The new USB-based CompuScope family of digitizers from GaGe includes three separate models that feature up to two input channels, up to 1.1-GS/s maximum sampling per channel, 12- or 14-bit vertical resolution, 128 MS of acquisition memory, and up to 1.2 GHz of



input analog bandwidth. The company claims that the digitizers have extremely high signal fidelity and effective-number-of-bits performance values of over 10 or 11 at a 70-MHz signal frequency, depending on the model. Each USB CompuScope model comes equipped with a USB cable, a 110/220-V power cable, and a lightweight, durable carrying case. The digitizers connect to laptop computers for portability. All USB CompuScope models operate under the GageScope standalone oscilloscope software or from any of GaGe's CompuScope software development kits. *GaGe, 900 North State Street, Lockport, IL 60441, <http://www.gage-applied.com>*

Design and modeling simulations

Maplesoft has simultaneously released MapleSim 4, a physical modeling and simulation tool, and Maple 14, a technical computing software for engineers, mathematicians, and scientists. The products are based on Maplesoft's core technologies, which include a symbolic computation engine and physical modeling techniques. Together, the technologies provide tools for design, modeling, and high-performance simulation, including real-time and hardware-in-the-loop applications. MapleSim 4 introduces a new 3D construction feature to save users significant time when developing multibody models. It provides instant, realistic feedback of multibody systems by dynamically rendering the model as it is built. In addition, the 3D construction environment lets engineers add and manipulate multibody components directly in the 3D workspace. *Maplesoft, 615 Kumpf Drive, Waterloo, Ontario, Canada, N2V 1K8, <http://www.maplesoft.com>*

Q:
what do you call a
**sputter cleaning
ion source
system**

priced as low as
\$6,495?

A:

the **IG2.**

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Equation editor software

Design Science's MathType 6.6 for Windows features support for the Windows 7 handwriting recognition feature and extends support to more than 350 applications and websites in areas such as e-learning, calculation, and word processing. Among the many newly supported applications and websites are Blackboard, Google Docs, and Gmail. The company has made MathType compatible with many applications and websites used by students, e-learning authors, and other professionals. The new release features an accompanying "Works With . . ." web application with detailed instructions on how best to use MathType with each product. MathType has long been considered the professional version of Microsoft Office's Equation Editor; the update allows educators, scientists, and engineers to create papers and presentations with textbook-quality equations. *Design Science Inc, 140 Pine Avenue, 4th Floor, Long Beach, CA 90802, <http://www.dessci.com>*