Mentor Graphics®

Update Information Sheet

Thank you for ordering this Mentor Graphics Analog/Mixed-Signal product.

The AMS 2003.2 release includes: ADVance MS v2.1_1; CommLib RF v1.1_1; CommLib QuickStart v1.1_2; ADVance CommLib and CommLib BMC v2.1_1; Eldo, Eldo Mach, Eldo RF v6.1_1; Eldo Verilog-A v6.1_1; Artist Link v4.4_1; Xelga v3.8_1; and EZwave v1.2_1. AMS 2003.2 is generally supported on HP-UX 11.0 and 11.11, Sun Solaris 7, 8 and 9, and RedHat Linux 7.2 and 8.0. See the release notes for exceptions. Here are the highlights:

- Eldo now supports the fundamentally new Philips Modella model for lateral PNP devices, featuring physics-based parameterization. The Philips MM1 model now allows drain-gate correlated noise. Two new DSP models are available, and the transmission line models have been extended and improved. A new transformer controlled voltage source has been added. A start-up file, *eldo.ini* in the default directory, will now be automatically loaded and interpreted before any other file.

- A new built-in D2A mode FAST_STD_LOGIC speeds simulation in ADMS and ADMS/Mach. It is now possible to plot the currents on the pins of a "black-box" Mach subcircuit in Eldo Mach. Synchronization between ADMS and Mach now requires fewer time steps. Eldo Mach and ADMS Mach benefit from all of the most recent Mach improvements.

- The new CommLib RF, a library of Verilog-A behavioral models supplied in source form, can be used with either Eldo RF or ADMS RF. A new Eldo RF option reduces memory use by as much as one half without effecting results. Overall, time performance of Eldo RF has improved approximately 30%. Several new features enhance the usability of SST and MODSST analyses.

- Internal optimizations in Verilog-A reduce the necessary number of time points and speed calculation of each time point.

- The Eldo Device Equations Manual has been reorganized for ease of use.

- ModelSim-on-top descriptions in ADMS can now have open ports at the top level. A Value Change Dump (VCD) file can be recorded and subsequently attached to an open port to provide stimulus. New options to the `.DEFHOOK` command allow specifying boundary elements for Spice models and individual pins of all instances of a given library model. Multiple run commands `.DATA` and `.STEP` sweep Eldo parameters in ADMS. In ModelSim/Spice, a new facility saves the quiescent point to speed simulation restart on subsequent runs.

- VHDL-AMS extensions include a new subprogram that allows reference to a terminal anywhere in the hierarchy from a VHDL-AMS architecture, and the predefined attributes 'simple_name, 'instance_name and 'path_name, for use in error and progress reporting. Arrays of arrays (signals, constants or variables) are now supported.

- Additional EZwave printing options add flexibility. The event search tool now supports drag-and-drop to select the source waveform. The "top-line" and "base-line" settings now define waveform edges. A new attention key (Ctrl-C) interrupts long operations. A bus can be edited after creation. EZwave now reads Star-Hspice® Graph Data waveforms (*.tr*, *.ac*, or *.sw* extensions) and four-state VCD files.

- The EZwave measurement tool now saves reference level set-up parameters (topline, baseline, etc.). All applicable measurement functions and waveform calculations work on compound waveforms generated by ADMS multiple runs. Waveform calculations and measurement results can be automatically updated when a new waveform database from the same design is loaded. New frequency domain and general measurement functions have been added. Waveform calculator function panels have been reorganized for ease of use.

Read the release notes included with the product documentation to learn about these features and other enhancements. Use Acrobat Reader to load the *Analog/Mixed-Signal Simulators and Libraries Bookcase* from *$anacad/documentation/ anacad_doc.pdf*. Look for the Release Notes near the top of the list.

We are confident that this new release will improve your productivity and ease your workload.

Henry Y. Chang,
AMS Marketing Director

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