Mentor Graphics®

Update Information Sheet

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

The AMS 2003.1 release includes: ADVance MS v2.0_1; CommLib QuickStart v1.1_2; ADVance CommLib and CommLib BMC v2.0_1; Eldo, Eldo Mach, Eldo RF v6.0_1; Eldo Verilog-A v6.0_1; Artist Link v4.3_1; Xelga v3.7_1; and EZwave v1.1_1. Here are the highlights:

- Eldo model support now includes the latest version of Mextram 504. The BSIM3SOI v3.0 Model (Eldo Level 56) has been updated to improve fitting to FD SOI devices and to incorporate the latest Berkeley updates. The BSIM4, MM11 and BSIM3v3 models have all been updated and improved.

- Eldo and Eldo RF now handle circuits that require more than 2GB of memory on Sun and HP platforms. The new **`ELDO_RC_REDUCE`** option performs RC reduction, reducing the number of resistors, capacitors, and nodes for netlists containing layout-extracted parasitic networks. The new loop stability analysis command **`.LSTB`** allows analyzing circuit stability without breaking the loop. An extensive post-processing library is now available through a Tcl interface directly in Eldo. A new **`.SAVE`** option generates an industry-compatible file that can be reloaded for subsequent runs with **`.LOAD`** or **`.INCLUDE`** from many Spice simulators.

- Eldo RF now supports phase noise sources, allowing arbitrary phase noise re-injection into a circuit. Eldo RF now predicts the cutoff frequency in the phase noise spectrum and supports multi-oscillation frequency circuits during steady-state (**`.SST`**) analysis.

- Eldo Mach offers the ability to restart a simulation with a new set of commands on the same netlist without redoing the Mach TA compilation. The Eldo save and restart functionality has been extended to Eldo/Mach circuits. In ADMS Mach, D2A converters are now simulated by Mach TA, enabling direct ModelSim/Mach connections without Eldo. Eldo Mach also benefits from most of the recent Mach enhancements.

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- Eldo Verilog-A simulation speed has been improved on a wide range of typical examples through a variety of optimizations. The improvements are visible in both Eldo Verilog-A and in ADMS. Verilog-A error and warning messages have been improved.

- EZwave is our next-generation waveform viewer, new in AMS 2003.1. EZwave includes a modern full-featured graphical user interface with benefits too numerous to list here. EZwave is the default viewer for ADVance MS.

- ADVance MS now supports extended identifiers. Built-in A to D boundary elements specified in `.HOOK` and `.DEFHOOK` commands will now detect and translate a high Z on the analog side. The *.conv* boundary element log shows all boundary elements and the complete pathname for each element. That makes it possible to display boundary element internals in the GUI. The *init_net_spy* procedure of ModelSim can now be called from VHDL-AMS.

- The Artist Link extensions to Cadence ADE now fully supports Verilog-A views without Eldo wrappers. Access to the Eldo `.MPRUN` distributed simulation mechanism has been added. The extensive updates to *analogLib* and *mgcLib* include new Ibis buffers in *mgcLib*. For ADMS, a new library update command guarantees an imported library is up-to-date. Boundary elements can now be specified for a particular instance. The new EZwave viewer is integrated in Artist Link, including cross-probing to the schematic.

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