

SPECTRE Replacement in the Cadence Flow

Spectre is the Cadence SPICE simulator that can be used in the OASIS design environment. The Cadence environment has been available on Solaris for a number of years. Currently under shifting market pressures to standardize engineering desktop computer on the Linux OS, Cadence has introduced their design environment on Linux. Silvaco has always supported the Solaris based Cadence design environment for seamless *SmartSpice* integration. To accommodate new customer demands to support the new Linux environment, Silvaco has developed a *SmartSpice* interface for it. This new interface software allows users to replace SPECTRE with *SmartSpice* as the analog simulation engine without disrupting the design flow. This benefits

analog circuit designers as they can access the latest high quality SPICE models (such as BSIM4.40 CMOS model, TFT, SOI, etc.) without changing the setup. From the user's point of view nothing has changed. The user sees the same Cadence schematic and the same viewer, and is oblivious to which SPICE engine (SPECTRE or *SmartSpice*) is used. The power of this interface is that it can provide both Analog and mixed Analog/Digital simulation under the Solaris operating system at present. The mixed signal capability will be available shortly for Linux. New functionality has been included to dynamically change the menus so multi-level Monte-Carlo simulation will be possible as well as use of the optimizer functions inside *SmartSpice*.

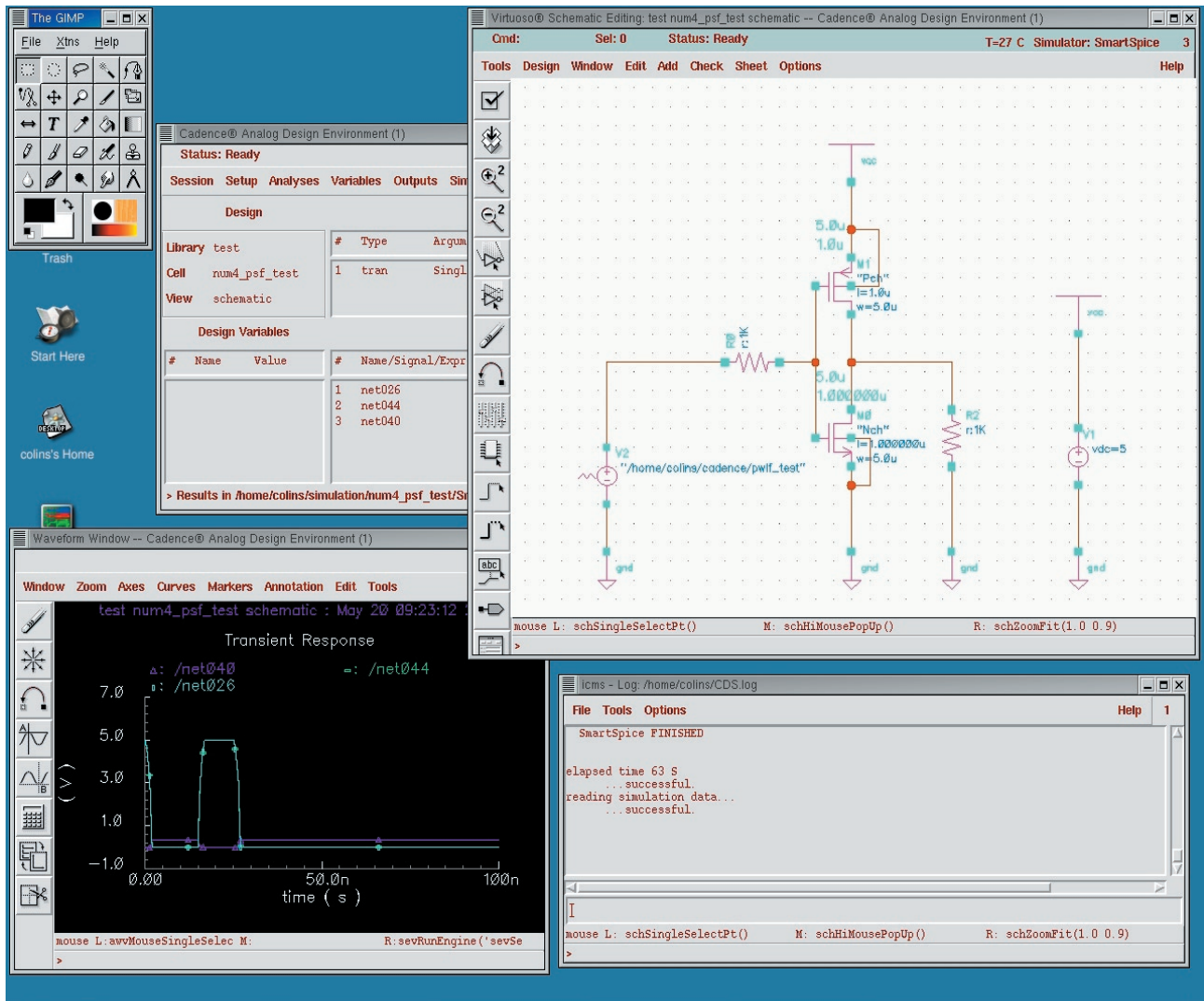


Figure 1. Linux terminal view of Cadence interface.