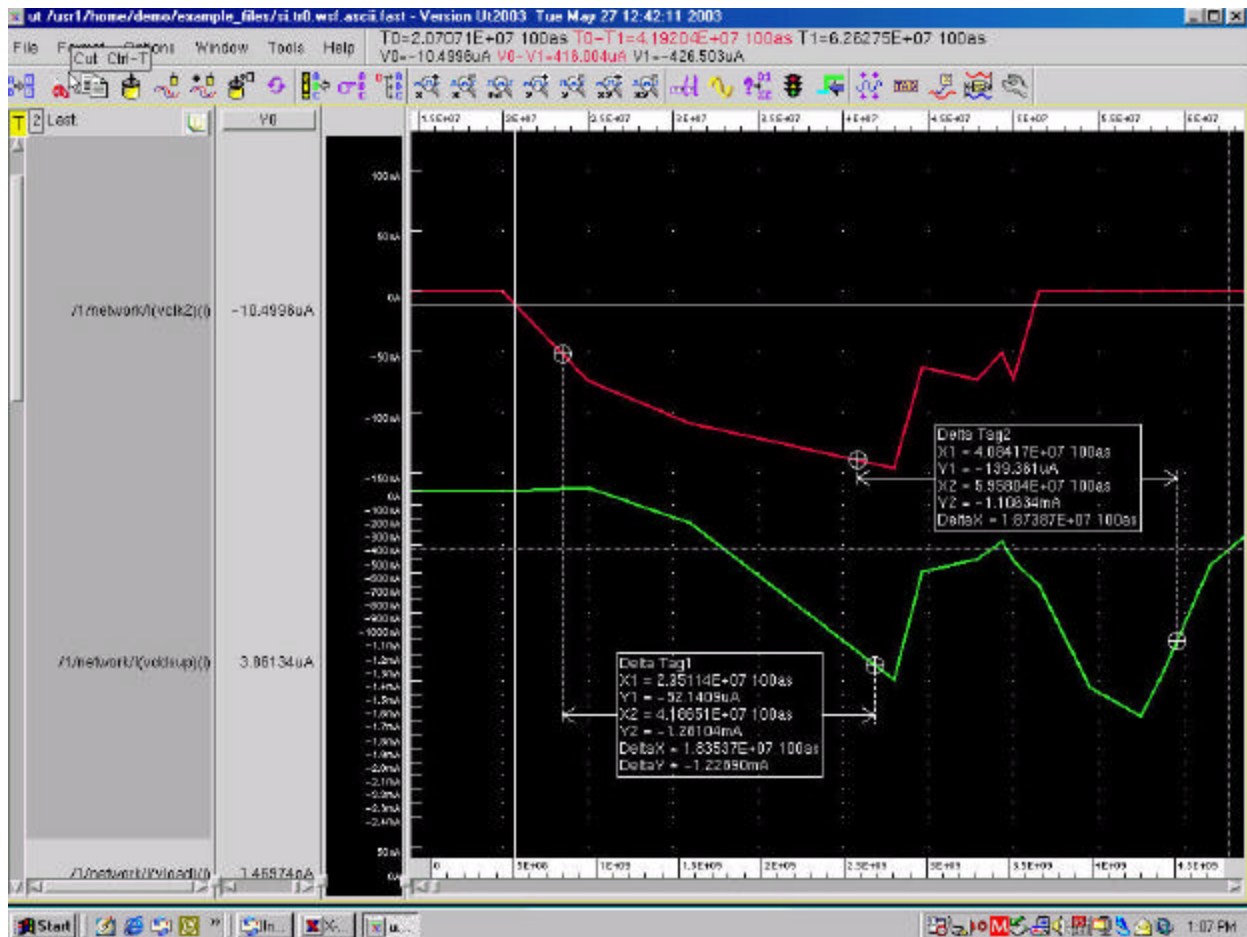


# Veritools V Wave

V Wave provides a powerful waveform viewing and debugging environment for analog, digital or mixed-mode simulation output.



V Wave for Analog, Digital or Mixed-mode Designs includes these important features:

- One tool now includes a complete set of analog and digital features
- Source Code debugging features
- Very High Speed File Loading
- Very High Speed Signal Display
- Complete Set of Analog Functions
  - Arithmetic Functions
  - Trigonometry Functions, FFT, DFT
  - Integrate/Differentiate Functions
- Filter, Elliptic, Bessel, Butterworth Chebyshev, FIR, IIR, etc.
- Frequency, Jitter, Period versus Time
- Perl Scripting
- File Compression up to 1,000x
- Can be run in mixed-mode with Verilog, VHDL, and SystemVerilog, SVAssertions
- Supports: HSpice, PSpice, SmartSpice, NanoSim, Spectre, StarSim, HSPICE, Time/Power/Railmill in all formats

**Veritools**

Download V Wave from our web site: [www.veritools.com](http://www.veritools.com)

**The most powerful waveform viewing and analysis environment:** V Wave also includes several additional ways to view your design environment including State Diagram View and RTL Schematic View. Both State Diagram and Schematics are now derived directly for your Verilog or VHDL and now SystemVerilog source code. V Wave now includes the following features:

**\*NEW\* HDL Analyzer to provide Graphical Schematic viewing of synthesized RTL Schematics:** V Wave now includes a complete RTL synthesizer to provide users with a display of their RDL source code in a graphical schematic, using very simple RTL primitives such as FFs, MUXs, ANDs, ORs, NOT, and COMPARE EQUAL to greatly simplify debugging RTL source code. HDL designers can now debug any RTL source code, even RTL source code they are not familiar with, in a fraction of the time using the new HDL Analyzer. Synthesis is done so as to be RTL timing precise, according to timing rules found on very expensive synthesizers. Schematic includes annotation of signal values and allows automatic trace back to any point the logic on the schematic

**File compression 650-1,000 X:** The latest V Wave PLI now offers, 650-1,000 X compression for waveform files directly generated from the simulator via PLI with no slow down in file reading speeds, simulation speed is speeded up by a factor of 4 times. In a typical example, a 3.2, gigabyte waveform file previously generated from the simulator is now a 2.5 megabyte file, with no loss of data and at 1/4th the time required for the previous simulation.

**Waveform Window:** Instantly display waveforms from even very large (20 gigabytes and above in size) waveform files. View any number of files, both analog and digital with an unlimited number of waveform panes.

**Source Code:** Window Source Code Window allows users to step their Source Code forward or backward. Users can instantly go to

the exact line of source code from any signal transition on the Waveform Window. Clicking on any signal edge will display where this signal has been assigned. Users can double click on any Task or Function or any module and instantly see the code that is part of this task or function module.

**Trace Input Cone, Control Flow Graph:** V Wave allows users to trace signal values in their designs schematically, even through multiple levels of FFs. Users can also display a complete control flow graph of their RTL design, with all FFs shown and the time selected signal values passed through these FF's. These signal values can automatically traced back to the logic in the design where the error condition occurred.

**State Diagram Window:** State Diagrams are automatically extracted from source code. The State Diagram View provides the user with several powerful new analysis features including, State Stepping, State Persistence, State Path Analysis, State Coverage, and State Coincidence. Users can display any number of State Diagrams, and see how all of these different State Diagrams sequence together. State Diagrams can be stepped forward or backward, with both states and the state paths that have been exercised high lighted. Detailed state analysis tools are provided to allow users to see exactly how different parts of their state designs react with their other state designs. Many different styles of state diagram styles are currently supported. Also included is a state coverage tool as a standard feature.

**Powerful new Scripting capability based on PERL/TK and TCL/TK:** The V Wave scripting language is based on the CAD industry standard scripting languages, PERL/TK and TCL/TK. Users can write scripts which can be used for either digital or analog analysis. Scripts can be run interactively or in batch mode using any of the Veritools databases.

**V Wave, including all of the features for both analog/digital is priced at or below the price for most pure analog tools.**

**The world's most powerful tool for analog and digital and mixed mode analog/digital**