VHDL Studio™

The Intelligent VHDL Design Entry and Verification Environment

Increase Productivity

VHDL Studio™ provides advanced design entry with design wizards and incremental analysis. Design wizards streamline the design entry process by automating tedious and time-consuming tasks. With the incremental analysis continually analyzing your code as you edit, VHDL Studio™ can provide early error detection on-the-fly as well as access to up-to-date design navigation.

Reduce Overhead

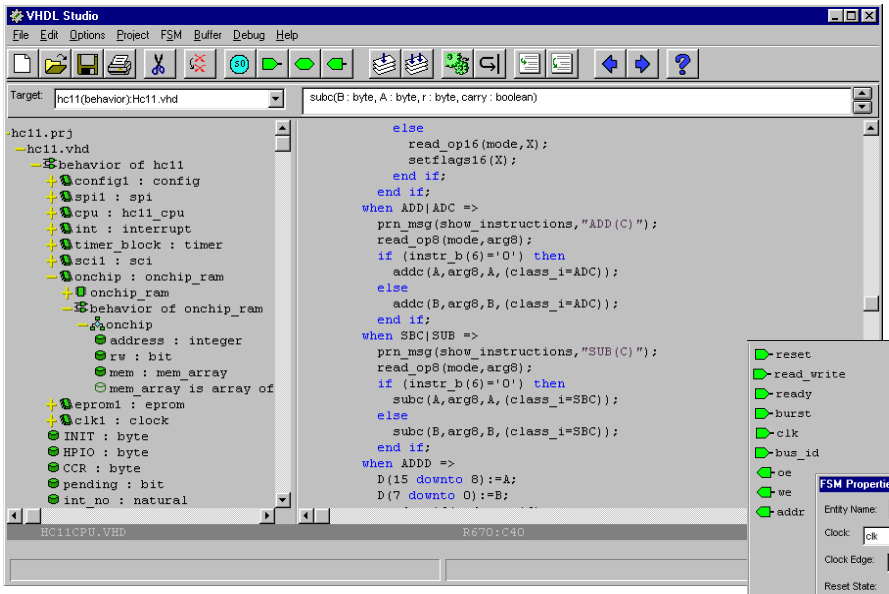
VHDL Studio™ integrates design entry with fast VHDL'93 behavioral and structural (VITAL/SDF) simulation. With a single seamless environment for both design entry and verification, less time is spent learning and using two dif- applications.

GREEN MOUNTAIN
Computing Systems, Inc.

VHDL Studio™

Project Management

- **Project Creation Wizard**
  Existing designs can be easily imported into VHDL Studio™ with the project wizard, which determines all the files and libraries required by a given top-level entity/architecture.



- **Project Browser**
  The browser provides a quick overview display of the project. Each file in the project and its contents are displayed, including libraries external to the project.

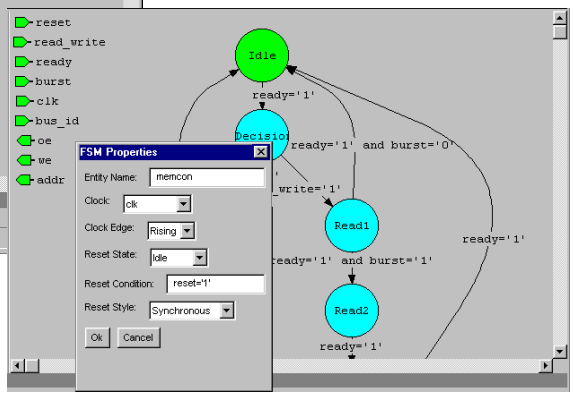
- **Automatic Build**
  VHDL Studio™ automatically calculates file dependencies and determines the correct compilation order for the selected target.

- **Error Navigation**
  Compilation errors are easily located by double clicking on error messages to jump to the error's location in the source file.

Design Entry

- **VHDL Editor**
  The built-in editor performs color highlighting of VHDL source code to facilitate reading, and automatic identifier completion to reduce typing.

- **State Machine Editor**
  The most intuitive way to design a state machine is with a state machine diagram. VHDL Studio™ includes a graphical state machine diagram editor for intuitive state machine entry that automatically and transparently generates a VHDL implementation.

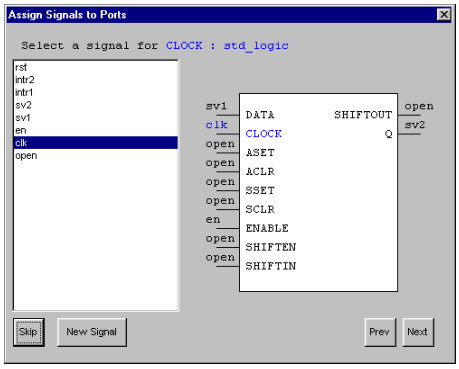


- **On-the-fly Error Detection**
  Using incremental analysis, VHDL Studio™ can instantly detect syntax errors as you type and eliminate the tedious compile, locate error, and edit cycle.

- **Auto-prompting**
  Auto prompts provide you quick information about previously defined subprogram signatures, and signal/variable types without leaving your current editing position to locate the definition in another location or even in another file. Auto prompts are always up-to-date due to VHDL Studio's incremental analysis engine.

VHDL Studio™

- **Instance/Component Creators**
  Component and instance wizards make component declaration and instantiation a snap. Just select any entity from your project and the component creator will insert a matching component declaration in your design. The instance creator provides a simple graphical interface for assigning local signals to the ports of the instantiated entity for fast, error-free component instantiation.



- **Graphical Testbench Designer**
  The testbench designer provides a graphical waveform editor for simple and intuitive testbench design. In interactive mode, the simulator updates output waveforms as you edit the inputs. Timing checks and data checkpoints are also easily added to the waveform diagram. You can run the testbench within VHDL studio for a graphical display of timing and data violations or run the automatically-generated VHDL testbench yourself.

Design Navigation

- **Hierarchy Browser**
  The hierarchy browser provides a complete structural view of your design's units, blocks, instances and processes, as well as type, signal, variable, and subprogram information. Double clicking on any item in the browser instantly brings you to the file and line number where the item is defined. Thanks to VHDL Studio's incremental analysis, the browser is always up-to-date with changes made in the editor.

- **Hypertext Navigation**
  In VHDL Studio™ your VHDL is more than plain text, its hypertext! If you forget the type of that signal, or the arguments to that function, simply right click on its name to instantly jump to its definition .

- **Navigation History**
  Even with all the advanced design navigation features of VHDL Studio™. you'll never get lost with the "back" button, which will quickly return you to your previous location in the design.

Simulation

- **Native VHDL'93 Compiler**
  VHDL Studio™ includes a new version of the Green Mountain VHDL Compiler for fast, direct-compile simulation.

- **Waveform Display**
  Graphical waveform display makes simulation results easy to browse and understand.

- **Source-Level Debugging**
  Source-level debugging provides statement-by-statement execution for detailed debugging. Source-level debugging includes breakpoints to quickly simulate to the point of interest for detailed, statement-by-statement debugging.

VHDL Studio™

- **Tcl/Tk Scripting**
  The simulator provides Tcl/Tk script support to enable unlimited customization and automation.

- **VITAL Optimization**
  The new version of the Green Mountain VHDL Compiler in VHDL Studio™ includes VITAL specific optimizations and built-in VITAL libraries delivering performance up to **7 times faster** than the previous version.

- **SDF Backannotation**
  Post-route simulation with timing information is provided through standard SDF backannotation.

Product Support

- **Free Technical Support**
  E-mail support is provided at no charge.

- **Free Minor-Release Updates**
  VHDL Studio™ owners have access to the most recent minor release via our support Web pages.

- **No Maintenance Fees**
  Technical support and minor release upgrades are provided with no annual maintenance fees.

System Requirements

Windows

- Pentium PC/64MB of RAM
- Microsoft Windows 98, Me, NT 4.0, or 2000
- 20MB of hard-disk space (installation only).
- CD-ROM

Linux

- Pentium PC/64MB of RAM
- Linux 2.0 or greater
- 20MB of hard-disk space (installation only)
- CD-ROM

Solaris

- Sparc V8 or better/64MB of RAM
- Solaris 2.7 or 2.8
- 20MB of hard-disk space (installation only)
- CD-ROM

Components

- On-line VHDL Tutorial
- On-line VHDL Reference Manual
- On-line User's Guide
- Project Wizard
- Project Manager
- Design Browser
- VHDL Editor
- Incremental Analysis
- State Machine Editor
- Instance Wizard
- Test Bench Generator
- VHDL'93 Simulation
- Source-Level Debugger
- Waveform Viewer
- VITAL/SDF Simulation
- Tcl/Tk Scripting

Contact Information

For more information or to order call **800-656-5380** (fax: 802-434-5071), visit our Web site at:

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