

SPIM: A MIPS32 Simulator

Spim is a self-contained simulator that runs MIPS32 programs. It reads and executes assembly language programs written for this processor. *Spim* also provides a simple debugger and minimal set of operating system services. *Spim* does not execute binary (compiled) programs.

Spim implements almost the entire MIPS32 assembler-extended instruction set. (It omits most floating point comparisons and rounding modes and the memory system page tables.) The MIPS architecture has several variants that differ in various ways (e.g., the MIPS64 architecture supports 64-bit integers and addresses), which means that *Spim* will not run programs for all MIPS processors.

Spim comes with complete source code and documentation.

Spim implements both a terminal and windows interfaces. On Microsoft Windows, Linux, and Mac OS X, the *spim* program offers a simple terminal interface and the *QtSpim* program provides the windowing interface. The [older programs *xspim* and *PCSpim*](#) provide native window interfaces for these systems as well.