SPIM simulator

CSE 410, Spring 2006
Computer Systems

http://www.cs.washington.edu/education/courses/410/06sp/

SPIM simulator

• SPIM lets you write MIPS assembly language code and run it on a PC
• PCSpim is installed on the machines in the Math Sciences Computing Center
• You can download versions for Windows and all varieties of *nix (including MacOS X) from the web site
  » http://www.cs.wisc.edu/~larus/spim.html

Reading and References

• See the Resources section on the SPIM web page for documentation on SPIM
  » http://www.cs.wisc.edu/~larus/spim.html

• In particular, Appendix A and Getting Started with PCSpim are useful reading from that site

Spim display

• Register panel
  » register names and numbers
• Text segment panel
  » note jump and link to “main” at [0x00400014]
  » your code defines the label “main”
• Data and Stack segment panel
• Message panel
Context editor

- You can use any text editor you like to write the source code
  » see links on class software page
- Context editor provided in MSCC
  » it has a highlighter for MIPS assembly language
  » it doesn’t try to be a word processor
- jEdit editor is another good programming editor, also provides a MIPS highlighter

hello.s

.data
str:
.ascii "Hello World\n"

.text
main:
li $v0,4    # print_string code
la   $a0,str  # addr(str)
syscall # print it
jr $ra # return