EECS 298
System-on-Chip Description and Modeling
Winter 2006

Assignment 1

Posted: January 19, 2006 (week 3)
Due: January 27, 2006 (week 4)

Task: Get familiar with SpecC compiler, simulator, and tools

Instructions:

The goal of this first assignment is to make you familiar with the SpecC tool suite including the compiler, simulator, integrated development environment, and tools. We will use example applications provided with the SpecC tools.

Task 1: Make yourself familiar with the usage of the SpecC compiler, `scc`.

For this task, log into the server `epsilon.eecs.uci.edu` using the secure shell protocol `ssh.` The SpecC compiler is available on the server in the directory `/opt/sce-20041007/`. To use it, run the provided setup script:
       `source /opt/sce-20041007/bin/setup.csh`

Next, copy the examples found in `/opt/sce-20041007/examples/simple/` into a working directory for your experiments. Then, use `scc` to compile and simulate those examples. Of course, you may also want to inspect the sources of these examples, as well as the `Makefile` provided in this directory.

Task 2: Make yourself familiar with the graphical SoC Environment, `sce`.

For this task, read the SCE tutorial `sce-tutorial.pdf` found in the directory `/opt/sce-20041007/doc/SCE_Tutorial/` on the server. Follow the initial steps described in the tutorial document and learn how to use SCE. Note that the initial steps of the document are sufficient for now. You don't need to go beyond the capture and simulation of the provided specification model of the vocoder application.

Again, it will also be helpful if you examine the source code of the vocoder specification model so that you understand how the test bench with the design under test is modeled. To view the source in SCE, just click on the `Main` behavior and open the source code editor.

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