EECS 222A
System-on-Chip Description and Modeling
Fall 2007

Assignment 2

Posted: October 12, 2007 (week 3)
Due: October 19, 2007 (week 4)

Task: Become familiar with the System-on-Chip Environment (SCE)

Instructions:

The goal of this second assignment is to make you familiar with the System-on-Chip Environment (SCE). SCE is a graphical development tool suite for the design of embedded systems.

Task: Make yourself familiar with the usage of SCE.

For this task, we will follow the initial steps of the SCE tutorial. To do this, first log into the server **`epsilon.eecs.uci.edu`** using the secure shell protocol **`ssh.`** Again we will use the same version of the SpecC tools that is available on the server in the directory **`/opt/sce-20041007/`**.

To setup the tutorial, follow the following instructions:

```
1> source /opt/sce-20041007/bin/setup.csh
2> mkdir sce-demo
3> cd sce-demo
4> setup_demo
5> ls
6> acroread SCE_Tutorial/sce-tutorial.pdf &
7> sce
```

This properly sets up your shell environment and creates an empty directory for the files needed by the demonstration. Note that step 4 is a shell command that will copy the required demo files into your prepared directory. To clean up after the demo (or to start over), simply delete the entire directory when you are done.

The **`sce-tutorial.pdf`** file is the document that will show you through the demo step by step. Since this is a large document with about 250 pages, it is suggested not to print it, but to simply view it on the screen (see step 6 above).

The last step (step 7 above) starts the graphical System-on-Chip Environment (you will need to use a graphical ssh client with support of X windows).

As soon as SCE starts, you are ready to go! Just follow the steps outlined in the tutorial.

Note that, for now, it will be sufficient to follow only the initial steps which load the example application, simulate it, and perform some early estimation. Thus, for this assignment, we will only follow chapters 1 and 2 of the tutorial (until page 47).

Finally, 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 code in SCE, just click on the **`Main`** behavior and open the source code editor. Alternatively, you may examine the sources also from the shell window using your favorite text editor.

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