

## Assignment 4

1. Become familiar with the System-on-Chip Environment (SCE)
  - Setup
    - Note that we will use the 2003 version of SCE for the tutorial:
    - `source /opt/sce-20030530/bin/setup.csh`
    - `rm -rf ~/.sce`
    - `mkdir demo`
    - `cd demo`
    - `setup_demo`
  - Open the SCE Tutorial document
    - `acroread SCE_Tutorial/sce-tutorial.pdf &`
    - Please *do not print* the tutorial, it contains 250 pages!
  - Follow the SCE Tutorial instructions until the architecture model is successfully created (page 94)
    - `sce &`
  - Cleanup
    - When done (or to start over), clean up your demo directory
    - `cd ..`
    - `rm -rf demo`

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2. Simulate your digital camera model in SCE
  - Setup
    - Note that we will use the 2008 version of SCE for the JPEG Encoder:
    - `source /opt/sce-20080601/bin/setup.csh`
    - `rm -rf ~/.sce`
    - `cd jpegencoder2`
    - `sce`
  - Create a new project in SCE
    - **Project->New**
    - **Project->Settings**
      - Set verbosity and warning levels to 2
      - Adjust any other options the compiler may need to compile your model
    - **Project->SaveAs "digicam.sce"**
  - Load your design model into SCE
    - **File->Import "digicam.sc"**
    - **Project->AddDesign**
    - Right-click on `digicam.sir` in the project window, and **Rename** the model to `DigicamSpec`
  - Compile and simulate your model in SCE
    - **Validation->Compile**
    - **Validation->Simulate**

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3. Analyze your digital camera model in SCE
  - Setup
    - ...continued from step 2 (previous page)
  - View the structural hierarchy chart
    - Select the **Main** behavior in the behavior browser
    - Right-click ->**Chart**
    - Double-click the chart to add further levels of hierarchy
    - Turn on connectivity **View->Connectivity**
    - **Window->Print...** to file "**digicam.ps**"
    - In your shell window, convert the PostScript file to PDF:  
`ps2pdf digicam.ps`
    - Check the PDF file: `acroread digicam.pdf`
  - Deliverables
    - Hierarchy chart
      - "**digicam.pdf**"
  - Due
    - by Friday, Nov 6, 2009, at noon
    - by email to `doemer@uci.edu` with subject "EECS222C HW4"