DESIGN VERIFICATION Exercise 4: Introduction to SpecMan Elite

This exercise introduces you to SpecMan Elite. It gives you the opportunity to investigate some of the functionality of SpecMan Elite on a CPU example DUV. SpecMan will be used in the second DESIGN VERIFICATION assignment to write a sophisticated testbench for the calc1 design, so it is worth you investing some time into getting to know your tools better. SpecMan Elite is is part of the Incisive functional verification platform by Cadence. (`http://www.cadence.com`)

All files referred to in this exercise are available on the unit web pages. This sheet should be sufficient to get you started with SpecMan Elite. If there are problems, please let me know.
Have fun!

Kerstin

Getting Started

1. Make sure you include `/usr/local/cds2013/Incisive/tools/bin` into your PATH (variable). For instance, if you use the bash shell, it is best to do this in your `.bashrc` file.

   ```
   export PATH=/usr/local/cds2013/Incisive/tools/bin/:$PATH
   ```

   Remember that changes in the file .bashrc are only effective when you call bash next time.

2. To activate **help** type:

   ```
   cdnshelp &
   ```

   at a terminal window. This should open up the Cadence Help Browser. Go to the "Edit" menu, select the "General" tab and change the "Default Navigation View" to "Show Tree View on startup".

3. Create a directory in your home directory for this exercise, and move into it:

   ```
   mkdir SpecManTutorial
   cd SpecManTutorial
   ```

   Download the tutorial files (in the tar archive `sn_8.1_tutorial.tar.gz`) from the unit web page, unzip and untar them.

   ```
   gunzip sn_8.1_tutorial.tar.gz
   tar xfv sn_8.1_tutorial.tar
   ```

   This also provides you with the tutorial instructions in `sn_8.1_tutorial.pdf`.

4. Now start SpecMan Elite:

   ```
   specman -gui &
   ```

   You should see one window entitled "Console - SimVision".

SpecMan Elite Tutorial The file `sn_8.1_tutorial.pdf` contains a comprehensive SpecMan Elite tutorial for an example CPU design. Both the CPU and the testbench are modelled in e - this allows high-level modelling and verification without the need for a simulator to run the tutorial. You are expected to work your way through the tasks related to the tutorial during lab sessions with an emphasis on learning how to use SpecMan, understanding e code and the verification-specific features of the e language.