

Verification School Program

Verification Fundamentals: SystemVerilog

LAB SANITY CHECK

Instructions

Objectives

The **Sanity Check** package is a subset of the training lab materials that will be used during the “**Verification Fundamentals: SystemVerilog**” and “**Verification Fundamentals: UVM**” sessions. The objective is to check that all the required dependencies and environments are set up properly in your environment in order to run the labs. The following instructions explain how to launch the sanity check.

Environment Variables

Prior to move forward, you should set up the following variable depending on your local IT setup.

Environment Variable	Description
LAB_LAUNCHER	Empty by default. Should be set to the command used to launch a job, or empty if there is no launcher. For instance, <ul style="list-style-type: none"> - this can be used to setup LSF bsub command. - when set to “echo”, the simulation command will be printed and command will not be launched.
NCSIM_CMD	Default = xrun Can be set to IRUN
PATH	Ensure your simulator vsim, ncsim or xcelium is setup. Under ST environment, use the “sw” tool to setup Xcelium.

Package

A package has been provided either as a .zip (Windows) or as a .tgz file (Linux).
Untar the provided package using the following commands:
(assuming the file is downloaded under your ~/Downloads directory).

```
mkdir MY_LAB_DIR
cd MY_LAB_DIR
tar zxvf ~/Downloads/sv_sanity.tgz
```

Initial Setup

Setup your simulator environment from your shell:

Under TCSH:

```
sw xcelium 18.09.011  
setenv LAB_LAUNCHER 'bsub -I -q gui -P mcdverif -R "select[rh60]"'
```

Under BASH:

```
sw xcelium 18.09.011  
export LAB_LAUNCHER='bsub -I -q gui -P mcdverif -R "select[rh60]"'
```

Notes:

- You may need to adapt the project “-P <project>” and the queue “-q gui” to your authorized settings.
- Using LSF bsub command, you should use the -I argument so that the makefile waits for the job to return prior to perform the sanity checks

Launch the sanity test

Execute the following commands:

```
cd sv_sanity/simulation/ius  
make sanity
```

You should get the following outputs in your terminal:

```
-----  
--> SystemVerilog Sanity Test Passed  
--> UVM Sanity Test Passed  
-----  
--> SANITY TESTS PASSED <--  
-----
```

Expected output example:

```
Simulation complete via $finish(1) at time 45994500 PS + 45  
/sw/cadence/xcelium/18.09.011/linux86/tools/methodology/UVM/CDNS-1.1d/sv/src/base/  
uvm_root.svh:457 $finish;  
xcelium> exit  
UVM_ERROR : 0  
UVM_FATAL : 0  
-----  
--> SystemVerilog Sanity Test Passed  
--> UVM Sanity Test Passed  
-----  
--> SANITY TESTS PASSED <--  
-----  
make[1]: Leaving directory `/work/mcdverifschool/users/cerisief/MY_LAB_DIR/sv_s  
anity/simulation/ius'  
[1] 30334  
cerisief@gnx10305: █
```

Well done! You are all setup to run the labs.

In case of errors

1. Check that you can launch the following command
bsub -I -q gui -P mcdverif -R "select[rh60]" simvision
2. You may replace the project name of **mcdverif** with one of your project names
3. Try another version of the simulator using the **sw** command
4. Check if there are errors in the file xrun.log
5. Contact your instructor: François Cerisier for more support, he will get the pleasure to guide you further:
 - verification.school@aedvices.com or francois.cerisier@aedvices.com
 - Phone: +33.4.76.37.81.43 / Mobile: +33.6.45.12.10.44