CSEE W4823 ADVANCED LOGIC DESIGN
Minimalist Tool Setup

Minimalist is an asynchronous CAD tool developed at Columbia University by Prof. Nowick and his students for the synthesis and optimization of "burst-mode" asynchronous controllers. Two of the class handouts (#38, #39) give an overview of the synthesis flow and a tutorial for tool use.

How to obtain and access Minimalist?

From Minimalist website: You can download Minimalist v2.0 from the following website: http://www1.cs.columbia.edu/~nowick/asynctools. **Notice that current version of Minimalist is only supported for Linux.**

From Embedded Systems Lab: Minimalist can only be accessed from 10 different machines in the Embedded Systems Lab (Mudd 1235). These machines are: micro4.ilab.columbia.edu, micro5.ilab.columbia.edu, micro6.ilab.columbia.edu, micro15.ilab.columbia.edu, micro16.ilab.columbia.edu, micro18.ilab.columbia.edu, micro19.ilab.columbia.edu, micro20.ilab.columbia.edu, micro22.ilab.columbia.edu, micro29.ilab.columbia.edu. Minimalist can be used on these machines either by access locally or remotely. For details, please check Quartus Usage and Remote Access Link on the course website.

How to install and use Minimalist?

To install Minimalist:
Minimalist is already installed on the Embedded Systems Lab machines. Therefore, you don't need to install it if you want to use Minimalist from the lab machines.

For those who want to download Minimalist, see the web site above. You will need to install Minimalist before using it. Follow the set-up instructions in the "INSTALL" file in the "docs" folder to install it.

To Use Minimalist:
1. Open a terminal window
2. Environment setup: On embedded lab machines, enter the following command:

   /tools6/MINIMALIST/init.d/envsetup

   For your own machine, follow the instructions in INSTALL file above.

3. Create a new directory (this will be your Minimalist work directory) and enter it (use 'mkdir' and 'cd' commands)
4. Type "MinShell" to use Minimalist tool
5. To run examples in the Minimalist tutorial (Handout #39, for example, the Martin (Caltech) Q-Element and Tangram Mixer, you can copy the .bms specification file

from the following directory into the directory you have created (use 'cp' command):

Embedded System Lab: /tools6/MINIMALIST/examples
Your own machine: [your Minimalist directory]/examples/

For any issues on Minimalist, please contact Yichun Deng (yd2348@columbia.edu) or Song Wang (sw2996@columbia.edu).