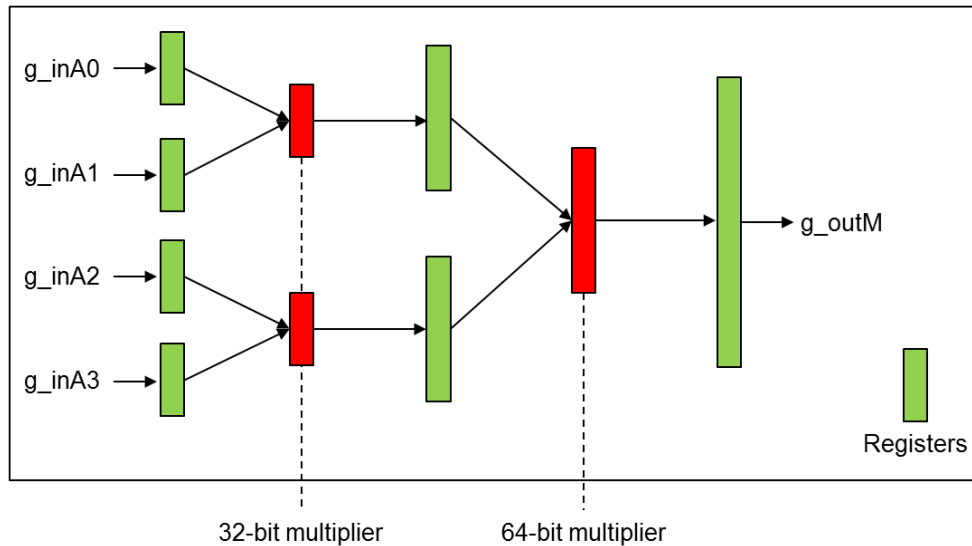


Lab 3

(Due Apr. 28th at the beginning of the class)

Design a four-input 32-bit pipelined multiplier. The following shows a block diagram for the multiplier:



The following file also contains all the files required for lab3.

- <http://eecs.wsu.edu/~ee434/Labs/lab3.tar.gz>
- pmul32_4_fm.globals, .view, .v, .sdc, .ctstch (use metalfill.cmd for metal fill insertion)

Spec

- Initial core utilization: 0.5

Submit

- Layout snapshots at each stage
 - After P/G network design
 - After placement (turn off the visibility of all metal layers)
 - After routing (turn off the visibility of all metal layers)
 - After routing (turn on the visibility of all metal layers)
 - After fill insertion (turn on the visibility of all metal layers)
- A snapshot of the clock tree after CTS

- Timing report (use “timeDesign”) at each stage
 - After placement
 - After pre-CTS optimization
 - After CTS
 - After post-CTS optimization
 - After routing
 - After post-routing optimization
 - After fill insertion