

CS 152
Computer Architecture and Engineering
Lecture 10

Multicycle Controller Design
(Continued)

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lecture slides: <http://www-inst.eecs.berkeley.edu/~cs152/>

Recap

- **Partition datapath into equal size chunks to minimize cycle time**
 - ~10 levels of logic between latches
- **Follow same 5-step method for designing “real” processor**
- **Control is specified by finite state digram**

Overview of

Control

- Control may be designed using one of several initial representations. The choice of sequence control, and how logic is represented, can then be determined independently; the control can then be implemented with one of several methods using a structured logic technique.

