

5.6 Linked State Machines



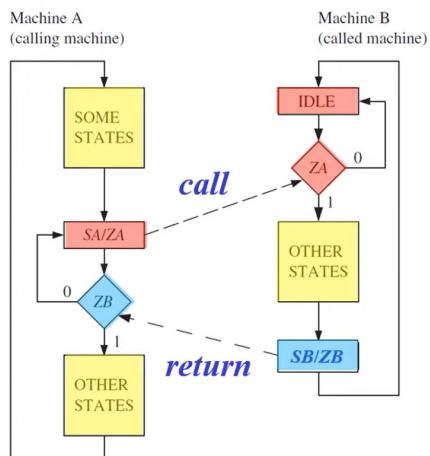
Introduction

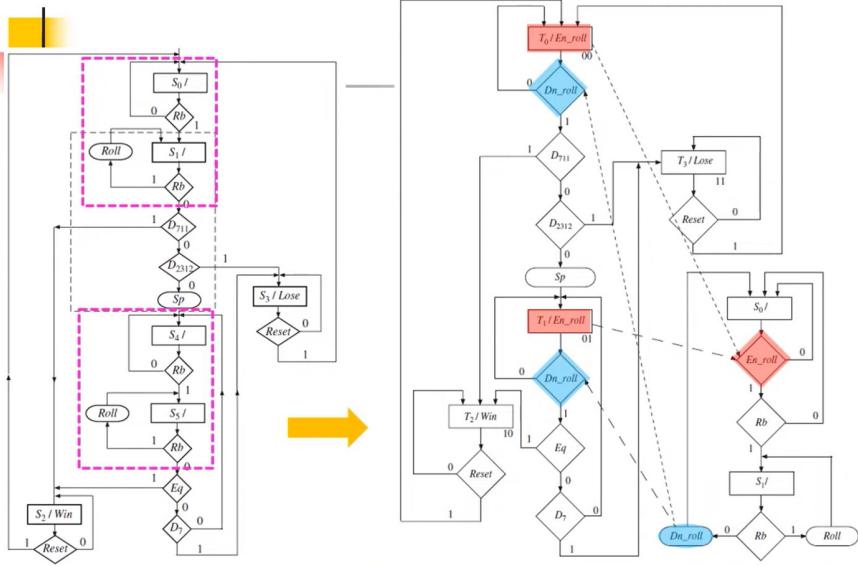
- Divide a sequential machine into several smaller machines linked together when the machine becomes large and complex.
- Each of the smaller machines is easier to design and implement.
- One of the Submachines may be "called" in several different places by the main machine.



SM Chart for Linked State Machine

- SM chart for serially linked state machines:





2 Summary

• Procedures for digital system design:

1. block diagram (define I/O)
2. flowchart / procedure
3. SM chart or state graph
4. behavioral Verilog description
5. testbench fixed circuitry, faster
6. implementation (hardwiring or microprogramming)

read from memory, slower