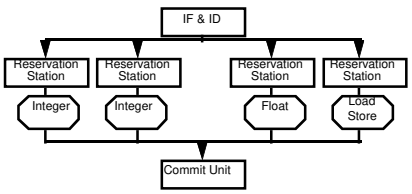
Wrap Up Of Pipelining

The final details of pipelining, including flushing, hazard detection, forwarding and execption handling are handled

Wrap-up Topics

- Forwarding “back-flow”
- Bubbling the load delay slot
- Flushing the EX, Mem & WB stages
- Flushing the IF
- Moving the Branch Decision to ID
- Capturing the EPC
- Going to the exection address

Refer to Figures 5.50 & 6.65

Suprescalar

- Executing 1 instruction per tick is fast, but executing more than 1 is even better ...
  - Duplicating, triplicating, etc. could work
  - Dynamic pipeline scheduling is better