­Lecture 13

Mutual Exclusion

Interrupt disabling

* not all interrupts need to be disabled
* might not work with multiprocessor environment

Special machine instructions

* Test and set instructions (TSET)
* Exchange instruction (XCHG)
* Advantages
  + Work on any number of processors sharing memory
  + Simple and supports multiple critical sections
* Disadvantages
  + Busy waiting is employed
  + Starvation and deadlock are possible