Figure 4.1 Fixed-priority scheduling protocol behavior.

- Preempts
- Attempts to allocates R
- Blocking Time
- Preempts and allocates R
- Frees R, terminates
- Allocates R
- Terminates
- Preempts

Still owns R

R is freed

Tc, Tb, Ta
Figure 4.2
Deadlock.

- Preempts
- Allocates R1
- Allocates R2
- Attempts to allocate R1
- Attempts to allocate R2
- T_b blocked by T_a
- T_a blocked by T_b
Figure 4.3  Basic Priority Inheritance Protocol behavior:

- Allocates R
- Allocated to
- Preempt
- Preempts
- Time
- Blocking
- Terminates
- Frees R, Terminates
- Prio T_A = Prio T_C
- Prio T_A Retrieved
- R is Freed
- T_A
- T_B
- T_C
Figure 4.4 Basic Priority inheritance protocol behavior in presence of multiple blocking.
Figure 4.5 Priority ceiling protocol behavior in presence of multiple blocking.

System ceiling: 0

Preempts Allocates Rs Frees Rs Terminates

Preempts Allocates Rs Frees Rs Terminates

Allocates Rs Frees Rs Allocates Rs Frees Rs

Pref 1A Releeved

Prio 1A = Prio 1B

Prio 1A = Prio 1B
Figure 4.6: Higher locker protocol behavior in presence of multiple blocking.

- Basic Pro T0 retrieved
- Allocates R2
- Allocates R1
- Allocates R1
- Allocates R2
- Frees R1
- Frees R2
- Preempts
- Terminates
- Pro T0 = Rs ceiling + 1
- Cannot preempt
- Pro T0 = Rs ceiling + 1