1. 对N个共享缓冲区读写问题PV互斥同步问题

var usable1,usable2,Sip,Siq,Soq,Sor:semaphore:=1,1,m,0,n,0;

begin

       parbegin

              Process P

              begin

              repeat

                     <读入信息>

                     wait(Sip);

                     wait(usable1);

                     <数据放入缓冲区>

                     signal(usable 1);

                     signal(Siq);

              until false

              end;

              Process Q

              begin

              repeat

                     wait(Siq);

                     wait(usable 1);

                     <从缓冲区中取出数据>

                     signal(usable 1);

                     signal(Sip);

                     <数据处理〉

                     wait(Soq);

                     wait(usable 2);

                     <处理后的数据放入缓冲区>

                     signal(usable 2);

                     signal(Sor);

              until false

              end;

              Process R

              repeat

                     wait(Sor);

                     wait(usable 2);

              <把数据送入打印机完成打印>;

                     signal(usable 2);

                     signal(Soq);

              until false

              end

       parend

end

2.盘中可放N个水果的吃水果问题进行PV互斥同步解答。

Vary usable , apple, orange : semaphore:=1,0,0;

father:

begin

repeat

wait(usable);

把水果放入盘中;

if(放入的是桔子) then signal(orange);

else signal(apple);

signal(usable);

until false

end

son:

begin

repeat

wait(orange);

wait(usable);

取出桔子;

signal(usable);

吃桔子;

until false

end

daughter:

begin

repeat

wait(apple);

wait(mutex);//两个wait不能交换顺序

从盘中取出苹果;

signal(usable);

吃苹果;

until false

end