利用管程解决读者写者问题

monitor rw():

    int rCount

    bool write

    condition rq,wq

    procedure SR()

        if (write)  wait(rq) ;

        rCount++;

        signal(readqueue);

    procedure ER()

        readcount--;

        if (readcount==0) signal(writequeue);

    procedure SW()

        if (readcount>0 or write) wait(writequeue);

        write=true;

    procedure EW()

        write=false;

        if (readqueue!=NULL) signal(readqueue);

        else signal(writequeue);

begin

readcount=0;

write=false;

end

reader:

    while(1)

        rw.SR;

        reading

        rw.ER;

writer:

    while(1)

        rw.SW;

        writing

        rw.EW;