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**利用管程解决读者写者问题**

Monitor ReaderWriter{

int write;

condition r,w;

int count;

public;

void StartRead(){

if(write>0) cwait(r);

count++;

csignal(r);

}

void EndRead(){

count--;

if(count==0) csignal(w);

}

void StartWrite(){

if(write>0||count>0) cwait(w);

write=1;

}

void EndWrite(){

write=0;

//读者优先

if(r!=NULL) csignal(r);

else csignal(w)

}

{ write=0;count=0;}

}RW;

void Reader()

{

while(1)

{

RW.StartRead();

读；

RW.EndRead();

}

}

void Writer()

{

while(1)

{

RW.StartWrite();

写；

RW.EndWrite();

}

}

void main()

{

cobegin

Reader();

Writer();

coend()

}