操作系统：用管程解决读者写者问题 朱旻鸿 2018012708

Monitor readerwriter

{

int readcount,writecount;

condition rmutex,wmutex;

public:

void startread( )

{

if(writecount==1)

cwait(rmutex);

readcount++;

csignal(rmutex);

}

void endread( )

{

readcount--;

if(readcount==0)

csignal(wmutex);

}

void startwrite( )

{

if(readcount>0||writecount==1)

cwait(wmutex);

writecount=1;

}

void endwrite( )

{

writecount=0;

if(rmutex!=NULL)

csignal(rmutex);

else

csignal(wmutex);

}

{readcount=0; writecount=0;}

}RW;

void Readers( )

{

while(true)

{

RW.startread( );

reading

RW.endread( );

}

}

void Writers( )

{

while(true)

{

RW.startwrite( );

writing

RW.endwrite( );

}

}

void main( )

{

cobegin

Readers();

Writers();

coend

}