NAME

timod – Transport Interface cooperating STREAMS module

SYNOPSIS

#include <sys/stropts.h>

ioctl(*fildes***, I_STR, &***my_strioctl***);**

DESCRIPTION

timod is a STREAMS module for use with the Transport Interface (TI) functions of the Network Services library. The **timod** module converts a set of **ioctl**(2) calls into STREAMS messages that may be consumed by a transport protocol provider that supports the Transport Interface. This allows a user to initiate certain TI functions as atomic operations.

The **timod** module must be pushed onto only a stream terminated by a transport protocol provider that supports the TI.

All STREAMS messages, with the exception of the message types generated from the **ioctl** commands described below, will be transparently passed to the neighboring module or driver. The messages generated from the following **ioctl** commands are recognized and processed by the **timod** module. The format of the **ioctl** call is:

```
#include <sys/stropts.h>
                    -
                    -
struct strioctl my_strioctl;
                    -
                    -
strioctl.ic_cmd = cmd;
strioctl.ic_timout = INFTIM;
strioctl.ic_len = size;
strioctl.ic_dp = (char *)buf
ioctl(fildes, I_STR, &my_strioctl);
```

On issuance, *size* is the size of the appropriate TI message to be sent to the transport provider and on return *size* is the size of the appropriate TI message from the transport provider in response to the issued TI message. *buf* is a pointer to a buffer large enough to hold the contents of the appropriate TI messages. The TI message types are defined in **<sys/tihdr.h>**. The possible values for the *cmd* field are:

TI_BIND Bind an address to the underlying transport protocol provider. The message issued to the **TI_BIND ioctl** is equivalent to the TI message type **T_BIND_REQ** and the message returned by the successful completion of the **ioctl** is equivalent to the TI message type **T_BIND_ACK**.

TI_UNBIND Unbind an address from the underlying transport protocol provider. The message issued to the **TI_UNBIND ioctl** is equivalent to the TI message type **T_UNBIND_REQ** and the message returned by the successful completion of the **ioctl** is equivalent to the TI message type **T_OK_ACK**.

TI_GETINFO Get the TI protocol specific information from the transport protocol provider. The message issued to the **TI_GETINFO ioctl** is equivalent to the TI message type **T_INFO_REQ** and the message returned by the successful completion of the **ioctl** is equivalent to the TI message type **T_INFO_ACK**.

TI_OPTMGMT Get, set, or negotiate protocol specific options with the transport protocol provider. The message issued to the **TI_OPTMGMT ioctl** is equivalent to the TI message type **T_OPTMGMT_REQ** and the message returned by the successful completion of the **ioctl** is equivalent to the TI message type **T_OPTMGMT_ACK**.

FILES

<sys/timod.h>
<sys/tiuser.h>
<sys/tihdr.h>
<sys/errno.h>

SEE ALSO

intro(2), **tirdwr**(7M)

STREAMS Programming Guide
Transport Interfaces Programming Guide

DIAGNOSTICS

If the **ioctl** returns with a value greater than 0, the lower 8 bits of the return value will be one of the TI error codes as defined in **<sys/tiuser.h>**. If the TI error is of type **TSYSERR**, then the next 8 bits of the return value will contain an error as defined in **<sys/errno.h>** (see **intro**(2)).