NAME

syncstat – report driver statistics from a synchronous serial link.

SYNOPSIS

/usr/sbin/syncstat [**–c**] *device* [*interval*]

AVAILABILITY

SUNWcsu

DESCRIPTION

The **syncstat** command reports the event statistics maintained by a synchronous serial device driver. The report may be a single snapshot of the accumulated totals, or a series of samples showing incremental changes. Prior to these it prints the device name being used to query a particular device driver, along with a number indicating the channel number (ppa) under control of that driver.

Event statistics are maintained by a driver for each physical channel that it supports. They are initialized to zero at the time the driver module is loaded into the system, which may be either at boot time or when one of the driver's entry points is first called.

The *device* argument is the name of the serial device as it appears in the **/dev** directory. For example, **zsh0** specifies the first on-board serial device.

The following is a breakdown of **syncstat** output:

speed The line speed the device has been set to operate at. It is the user's responsibility to make this value correspond to the modem clocking speed when clocking is provided by the modem.

ipkts The total number of input packets.

opkts The total number of output packets.

undrun The number of transmitter underrun errors.

ovrrun The number of receiver overrun errors.

abort The number of aborted received frames.

crc The number of received frames with CRC errors.

isize The average size (in bytes) of input packets.

osize The average size (in bytes) of output packets.

OPTIONS

–c Clear the accumulated statistics for the device specified. This may be useful when it is not desirable to unload a particular driver, or when the driver is not capable of being unloaded.

interval **syncstat** samples the statistics every *interval* seconds and reports incremental changes. The output reports line utilization for input and output in place of average packet sizes. These are the relationships between bytes transferred and the baud rate, expressed as percentages. The loop repeats indefinitely, with a column heading printed every twenty lines for convenience.

EXAMPLES

example# **syncstat zsh0**

speed	**ipkts**	**opkts**	**undrun**	**ovrrun**	**abort**	**crc**	**isize**	**osize**
9600	**15716**	**17121**	**0**	**0**	**1**	**3**	**98**	**89**

example# **syncstat −c zsh0**

speed	**ipkts**	**opkts**	**undrun**	**ovrrun**	**abort**	**crc**	**isize**	**osize**
9600	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

example# **syncstat zsh0 5**

ipkts	**opkts**	**undrun**	**ovrrun**	**abort**	**crc**	**iutil**	**outil**
12	**10**	**0**	**0**	**0**	**0**	**5%**	**4%**
22	**60**	**0**	**0**	**0**	**0**	**3%**	**90%**
36	**14**	**0**	**0**	**0**	**1**	**51%**	**2%**

In this final example a new line of output is generated every five seconds.

SEE ALSO

syncinit(1M), **syncloop**(1M), **zsh**(7D)

DIAGNOSTICS

bad interval: *arg*
The argument *arg* is expected to be an interval and could not be understood.

device **missing minor device number**
The name *device* does not end in a decimal number that can be used as a minor device number.

baud rate not set
The *interval* option is being used and the baud rate on the device is zero. This would cause a divide-by-zero error when computing the line utilization statistics.

WARNINGS

Underrun, overrun, frame-abort, and CRC errors have a variety of causes. Communication protocols are typically able to handle such errors and initiate recovery of the transmission in which the error occurred. Small numbers of such errors are not a significant problem for most protocols. However, because the overhead involved in recovering from a link error can be much greater than that of normal operation, high error rates can greatly degrade overall link throughput. High error rates are often caused by problems in the link hardware, such as cables, connectors, interface electronics or telephone lines. They may also be related to excessive load on the link or the supporting system.

The percentages for input and output line utilization reported when using the *interval* option may occasionally be reported as slightly greater than 100% because of inexact sampling times and differences in the accuracy between the system clock and the modem clock. If the percentage of use greatly exceeds 100%, or never exceeds 50%, then the baud rate set for the device probably does not reflect the speed of the modem.