NAME

syncinit – set serial line interface operating parameters.

SYNOPSIS

/usr/sbin/syncinit *device* [[*baud_rate*] | [*keyword*=*value*,. . .] | [*single-word option*]]

DESCRIPTION

The **syncinit** utility allows the user to modify some of the hardware operating modes common to synchronous serial lines. This can be useful in troubleshooting a link, or necessary to the operation of a communications package.

If run without options, **syncinit** reports the options as presently set on the port. If options are specified, the new settings are reported after they have been made.

OPTIONS

Options to **syncinit** normally take the form of a keyword, followed by an equal sign and a value. The exception is that a baud rate may be specified as a decimal integer by itself. Keywords must begin with the value shown in the options table, but may contain additional letters up to the equal sign. For example, **loop=** and **loopback=** are equivalent.

Recognized options are listed in the table below.

Keyword	**Value**	**Effect**
loop	yes	Set the port to operate in **internal loopback** mode. The receiver is electrically disconnected from the DCE receive data input and tied to the outgoing transmit data line. Transmit data is available to the DCE. The Digital Phase-Locked Loop (DPLL) may not be used as a clock source in this mode. If no other clocking options have been specified, perform the equivalent of **txc=baud** and **rxc=baud**.
	no	Disable internal loopback mode. If no other clocking options have been specified, perform the equivalent of **txc=txc** and **rxc=rxc**.
echo	yes	Set the port to operate in **auto-echo** mode. The transmit data output is electrically disconnected from the transmitter and tied to the receive data input. Incoming receive data is still visible. Use of this mode in combination with local loopback mode has no value, and should be rejected by the device driver. The **auto-echo** mode is useful to make a system become the endpoint of a remote loopback test.
	no	Disable **auto-echo** mode.
nrzi	yes	Set the port to operate with **NRZI** data encoding.
	no	Set the port to operate with **NRZ** data encoding.
txc	**txc**	Transmit clock source will be the **TxC** signal (pin 15).
	rxc	Transmit clock source will be the **RxC** signal (pin 17).
	baud	Transmit clock source will be the internal **baud rate generator**.
	pll	Transmit clock source will be the output of the **DPLL** circuit.

rxc	**rxc**	Receive clock source will be the **RxC** signal (pin 17).
	txc	Receive clock source will be the **TxC** signal (pin 15).
	baud	Receive clock source will be the internal **baud rate generator**.
	pll	Receive clock source will be the output of the **DPLL** circuit.
speed	*integer*	Set the baud rate to *integer* bits per second.

There are also several single-word options that set one or more paramaters at a time:

Keyword	**Equivalent to Options:**
external	**txc=txc rxc=rxc loop=no**
sender	**txc=baud rxc=rxc loop=no**
internal	**txc=pll rxc=pll loop=no**
stop	**speed=0**

EXAMPLES

The following command sets the first CPU port to loop internally, use internal clocking and operate at 38400 baud:

```
example# syncinit zsh0 38400 loop=yes
device: /dev/zsh  ppa: 0
speed=38400, loopback=yes, echo=no, nrzi=no, txc=baud, rxc=baud
```

The following command sets the same port's clocking, local loopback and baud rate settings to their default values:

```
example# syncinit zsh0 stop loop=no
device: /dev/zsh  ppa: 0
speed=0, loopback=no, echo=no, nrzi=no, txc=txc, rxc=rxc
```

SEE ALSO

syncloop(1M), **syncstat**(1M), **intro**(2), **ioctl**(2), **zsh**(7D)

DIAGNOSTICS

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

bad speed: *arg*
: The string *arg* that accompanied the **speed=** option could not be interpreted as a decimal integer.

Bad arg: *arg*
: The string *arg* did not make sense as an option.

ioctl failure code = *errno*
: An **ioctl**(2) system called failed. The meaning of the value of *errno* may be found in **intro**(2).

WARNINGS

syncinit should not be used on an active serial link, unless needed to resolve an error condition. It should not be run casually, or if the user is unsure of the consequences of its use.