NAME

stty – set the options for a terminal

SYNOPSIS

/usr/bin/stty [**–a**] [**–g**]
/usr/bin/stty [*modes*]

/usr/xpg4/bin/stty [**–a** | **–g**]
/usr/xpg4/bin/stty [*modes*]

AVAILABILITY

/usr/bin/stty

SUNWcsu

/usr/xpg4/bin/stty

SUNWxcu4

DESCRIPTION

The **stty** command sets certain terminal I/O options for the device that is the current standard input; without arguments, it reports the settings of certain options.

In this report, if a character is preceded by a caret (^), then the value of that option is the corresponding control character (for example, "**^h**" is CTRL-H; in this case, recall that CTRL-H is the same as the ''back-space'' key.) The sequence "^´" means that an option has a null value.

See **termio**(7I) for detailed information about the modes listed from **Control Modes** through **Local Modes**. For detailed information about the modes listed under **Hardware Flow Control Modes** and **Clock Modes**, below, see **termiox**(7I).

Operands described in the **Combination Modes** section are implemented using options in the earlier sections. Note that many combinations of options make no sense, but no sanity checking is performed. Hardware flow control and clock modes options may not be supported by all hardware interfaces.

OPTIONS

The following options are supported:

–a Write to standard output all of the option settings for the terminal.

–g Report current settings in a form that can be used as an argument to another **stty** command. Emits termios-type output if the underlying driver supports it; otherwise, it emits termio-type output.

OPERANDS

The following *mode* operands are supported:

Control Modes

parenb (**–parenb**) Enable (disable) parity generation and detection.

parext (**–parext**) Enable (disable) extended parity generation and detection for mark and space parity.

parodd (**–parodd**) Select odd (even) parity, or mark (space) parity if **parext** is enabled.

cs5 cs6 cs7 cs8 Select character size (see **termio**(7I)).

0 Hang up line immediately.

110 300 600 1200 1800 2400 4800 9600 19200 38400
Set terminal baud rate to the number given, if possible. (All speeds are not supported by all hardware interfaces.)

ispeed 0 110 300 600 1200 1800 2400 4800 9600 19200 38400
Set terminal input baud rate to the number given, if possible. (Not all hardware supports split baud rates.) If the input baud rate is set to **0**, the input baud rate will be specified by the value of the output baud rate.

ospeed 0 110 300 600 1200 1800 2400 4800 9600 19200 38400
Set terminal output baud rate to the number given, if possible. (Not all hardware supports split baud rates.) If the output baud rate is set to **0**, the line will be hung up immediately.

hupcl (−**hupcl**) Hang up (do not hang up) connection on last close.

hup (−**hup**) Same as **hupcl** (−**hupcl**).

cstopb (−**cstopb**) Use two (one) stop bits per character.

cread (−**cread**) Enable (disable) the receiver.

crtscts (**-crtscts**) Enable output hardware flow control. Raise the RTS (Request to Send) modem control line. Suspends output until the CTS (Clear to Send) line is raised.

crtsxoff (−**crtsxoff**) Enable input hardware flow control. Raise the RTS (Request to Send) modem control line to receive data. Suspends input when RTS is low.

clocal (−**clocal**) Assume a line without (with) modem control.

loblk (−**loblk**) Block (do not block) output from a non-current layer.

defeucw Set the widths of multibyte Extended Unix Code (EUC) characters in struct eucioc to default values for the current locale specified by **LC_CTYPE**; width is expressed in terms of bytes per character, and screen or display columns per character (see **getwidth**(3I) and **ldterm**(7M)).

Input Modes

ignbrk (−**ignbrk**) Ignore (do not ignore) break on input.

brkint (−**brkint**) Signal (do not signal) **INTR** on break.

ignpar (−**ignpar**) Ignore (do not ignore) parity errors.

parmrk (−**parmrk**) Mark (do not mark) parity errors (see **termio**(7I)).

inpck (−**inpck**) Enable (disable) input parity checking.

istrip (−**istrip**) Strip (do not strip) input characters to seven bits.

inlcr (−**inlcr**) Map (do not map) NL to CR on input.

igncr (−**igncr**) Ignore (do not ignore) CR on input.

icrnl (−**icrnl**) Map (do not map) CR to NL on input.

iuclc (−**iuclc**) Map (do not map) upper-case alphabetics to lower case on input.

	ixon (−**ixon**)	Enable (disable) START/STOP output control. Output is stopped by sending STOP control character and started by sending the START control character.
	ixany (−**ixany**)	Allow any character (only DC1) to restart output.
	ixoff (−**ixoff**)	Request that the system send (not send) START/STOP characters when the input queue is nearly empty/full.
	imaxbel (−**imaxbel**)	Echo (do not echo) **BEL** when the input line is too long.
Output Modes	**opost** (−**opost**)	Post-process output (do not post-process output; ignore all other output modes).
	olcuc (−**olcuc**)	Map (do not map) lower-case alphabetics to upper case on output.
	onlcr (−**onlcr**)	Map (do not map) NL to CR-NL on output.
	ocrnl (−**ocrnl**)	Map (do not map) CR to NL on output.
	onocr (−**onocr**)	Do not (do) output CRs at column zero.
	onlret (−**onlret**)	On the terminal NL performs (does not perform) the CR function.
	ofill (−**ofill**)	Use fill characters (use timing) for delays.
	ofdel (−**ofdel**)	Fill characters are DELs (**NUL**s).
	cr0 cr1 cr2 cr3	Select style of delay for carriage returns (see **termio**(7I)).
	nl0 nl1	Select style of delay for line-feeds (see **termio**(7I)).
	tab0 tab1 tab2 tab3	Select style of delay for horizontal tabs (see **termio**(7I)).
	bs0 bs1	Select style of delay for backspaces (see **termio**(7I)).
	ff0 ff1	Select style of delay for form-feeds (see **termio**(7I)).
	vt0 vt1	Select style of delay for vertical tabs (see **termio**(7I)).
Local Modes	**isig** (−**isig**)	Enable (disable) the checking of characters against the special control characters INTR, QUIT, SWTCH, and SUSP.
	icanon (−**icanon**)	Enable (disable) canonical input (ERASE and KILL processing). Does not set **MIN** or **TIME**.
	xcase (−**xcase**)	Canonical (unprocessed) upper/lower-case presentation.
	echo (−**echo**)	Echo back (do not echo back) every character typed.
	echoe (−**echoe**)	Echo (do not echo) ERASE character as a backspace-space-backspace string. Note: This mode will erase the ERASEed character on many CRT terminals; however, it does not keep track of column position and, as a result, it may be confusing for escaped characters, tabs, and backspaces.
	echok (−**echok**)	Echo (do not echo) NL after KILL character.
	lfkc (−**lfkc**)	The same as **echok** (−**echok**); obsolete.
	echonl (−**echonl**)	Echo (do not echo) NL.

noflsh (**−noflsh**) Disable (enable) flush after INTR, QUIT, or SUSP.

stwrap (**−stwrap**) Disable (enable) truncation of lines longer than **79** characters on a synchronous line.

tostop (**−tostop**) Send (do not send) **SIGTTOU** when background processes write to the terminal.

echoctl (**−echoctl)** Echo (do not echo) control characters as ^*char*, delete as ^**?**.

echoprt (**−echoprt)** Echo (do not echo) erase character as character is ''erased''.

echoke (**−echoke)** BS-SP-BS erase (do not BS-SP-BS erase) entire line on line kill.

flusho (**−flusho)** Output is (is not) being flushed.

pendin (**−pendin)** Retype (do not retype) pending input at next read or input character.

iexten (**−iexten)** Enable (disable) special control characters not currently controlled by **icanon**, **isig**, **ixon**, or **ixoff**: **VEOLZ**, **VSWTCH**, **VREPRINT**, **VDISCARD**, **VDSUSP**, **VWERASE**, and **VLNEXT**.

stflush (**−stflush**) Enable (disable) flush on a synchronous line after every **write**(2).

stappl (**−stappl**) Use application mode (use line mode) on a synchronous line.

Hardware Flow Control Modes

rtsxoff (**−rtsxoff**) Enable (disable) RTS hardware flow control on input.

ctsxon (**−ctsxon**) Enable (disable) CTS hardware flow control on output.

dtrxoff (**−dtrxoff**) Enable (disable) DTR hardware flow control on input.

cdxon (**−cdxon**) Enable (disable) CD hardware flow control on output.

isxoff (**−isxoff**) Enable (disable) isochronous hardware flow control on input.

Clock Modes

xcibrg Get transmit clock from internal baud rate generator.

xctset Get the transmit clock from transmitter signal element timing (DCE source) lead, CCITT V.24 circuit 114, EIA-232-D pin 15.

xcrset Get transmit clock from receiver signal element timing (DCE source) lead, CCITT V.24 circuit 115, EIA-232-D pin 17.

rcibrg Get receive clock from internal baud rate generator.

rctset Get receive clock from transmitter signal element timing (DCE source) lead, CCITT V.24 circuit 114, EIA-232-D pin 15.

rcrset Get receive clock from receiver signal element timing (DCE source) lead, CCITT V.24 circuit 115, EIA-232-D pin 17.

tsetcoff Transmitter signal element timing clock not provided.

tsetcrbrg Output receive baud rate generator on transmitter signal element timing (DTE source) lead, CCITT V.24 circuit 113, EIA-232-D pin 24.

tsetctbrg Output transmit baud rate generator on transmitter signal element timing (DTE source) lead, CCITT V.24 circuit 113, EIA-232-D pin 24.

tsetctset Output tranmitter signal element timing (DCE source) on transmitter signal element timing (DTE source) lead, CCITT V.24 circuit 113, EIA-232-D pin 24.

tsetcrset Output receiver signal element timing (DCE source) on transmitter signal element timing (DTE source) lead, CCITT V.24 circuit 113, EIA-232-D pin 24.

rsetcoff Receiver signal element timing clock not provided.

rsetcrbrg Output receive baud rate generator on receiver signal element timing (DTE source) lead, CCITT V.24 circuit 128, no EIA-232-D pin.

rsetctbrg Output transmit baud rate generator on receiver signal element timing (DTE source) lead, CCITT V.24 circuit 128, no EIA-232-D pin.

rsetctset Output transmitter signal element timing (DCE source) on receiver signal element timing (DTE source) lead, CCITT V.24 circuit 128, no EIA-232-D pin.

rsetcrset Output receiver signal element timing (DCE source) on receiver signal element timing (DTE source) lead, CCITT V.24 circuit 128, no EIA-232-D pin.

Control Assignments

control-character c Set *control-character* to *c*, where:

control-character
is **ctab**, **discard**, **dsusp**, **eof**, **eol**, **eol2**, **erase**, **intr**, **kill**, **lnext**, **quit**, **reprint**, **start**, **stop**, **susp**, **swtch**, or **werase** (**ctab** is used with −**stappl**, see **termio**(7I)).

c If *c* is a single character, the control character will be set to that character.

In the POSIX locale, if *c* is preceded by a caret (^) indicating an escape from the shell and is one of those listed in the *^c* column of the following table, then its value used (in the Value column) is the corresponding control character (for example, ‘‘**^d**’’ is a CTRL-D). ‘‘**^?**’’ is interpreted as DEL and ‘‘**^−**’’ is interpreted as undefined.

^*c*	Value	^*c*	Value	^*c*	Value
a, **A**	<SOH>	**l**, **L**	<FF>	**w**, **W**	<ETB>
b, **B**	<STX>	**m**, **M**	<CR>	**x**, **X**	<CAN>
c, **C**	<ETX>	**n**, **N**	<SO>	**y**, **Y**	<EM>
d, **D**	<EOT>	**o**, **O**	<SI>	**z**, **Z**	<SUB>
e, **E**	<ENQ>	**p**, **P**	<DLE>	**[**	<ESC>
f, **F**	<ACK>	**q**, **Q**	<DC1>	****	<FS>
g, **G**	<BEL>	**r**, **R**	<DC2>	**]**	<GS>
h, **H**	<BS>	**s**, **S**	<DC3>	**^**	<RS>
i, **I**	<HT>	**t**, **T**	<DC4>	**_**	<US>
j, **J**	<LF>	**u**, **U**	<NAK>	**?**	<DEL>
k, **K**	<VT>	**v**, **V**	<SYN>		

min *number*

time *number* — Set the value of **min** or **time** to *number*. **MIN** and **TIME** are used in Non-Canonical mode input processing (–**icanon**).

line*i* — Set line discipline to *i* (**0<** *i* **<127**).

Combination Modes

saved settings — Set the current terminal characteristics to the saved settings produced by the –**g** option.

evenp or **parity** — Enable **parenb** and **cs7**, or disable **parodd**.

oddp — Enable **parenb**, **cs7**, and **parodd**.

spacep — Enable **parenb**, **cs7**, and **parext**.

markp — Enable **parenb**, **cs7**, **parodd**, and **parext**.

–**parity**, or –**evenp** — Disable **parenb**, and set **cs8**.

–**oddp** — Disable **parenb** and **parodd**, and set **cs8**.

–**spacep** — Disable **parenb** and **parext**, and set **cs8**.

–**markp** — Disable **parenb**, **parodd**, and **parext**, and set **cs8**.

raw (–**raw** or **cooked**) — Enable (disable) raw input and output. Raw mode is equivalent to setting:

stty cs8 –icanon min 1 time 0 –isig –xcase –inpck –opost

/usr/bin/stty

nl (–**nl**) — Unset (set) **icrnl**, **onlcr**. In addition –**nl** unsets **inlcr**, **igncr**, **ocrnl**, and **onlret**.

/usr/xpg4/bin/stty

nl (–**nl**) — Set (unset) **icrnl**. In addition, –**nl** unsets **inlcr**, **igncr**, **ocrnl**, and **onlret**; –**nl** sets **onlcr**, and **nl** unsets **onlcr**.

lcase (–**lcase**) — Set (unset) **xcase**, **iuclc**, and **olcuc**.

LCASE (–**LCASE**) — Same as **lcase** (–**lcase**).

tabs (–**tabs** or **tab3**) — Preserve (expand to spaces) tabs when printing.

ek — Reset ERASE and KILL characters back to normal **#** and **@**.

sane Resets all modes to some reasonable values.

term Set all modes suitable for the terminal type *term*, where *term* is one of **tty33**, **tty37**, **vt05**, **tn300**, **ti700**, or **tek**.

async Set normal asynchronous communications where clock settings are **xcibrg**, **rcibrg**, **tsetcoff** and **rsetcoff**.

Window Size

rows *n* Set window size to *n* rows.

columns *n* Set window size to *n* columns.

cols *n* Set window size to *n* columns. Note that **cols** is a shorthand alias for columns.

ypixels *n* Set vertical window size to *n* pixels.

xpixels *n* Set horizontal window size to *n* pixels.

USAGE

The −**g** flag is designed to facilitate the saving and restoring of terminal state from the shell level. For example, a program may:

```
saveterm="$(stty -g)"      # save terminal state
stty (new settings)        # set new state
. . .                      # . . .
stty $saveterm             # restore terminal state
```

Since the −**a** format is so loosely specified, scripts that save and restore terminal settings should use the −**g** option.

ENVIRONMENT

See **environ**(5) for descriptions of the following environment variables that affect the execution of **stty**: **LC_CTYPE**, **LC_MESSAGES**, and **NLSPATH**.

EXIT STATUS

The following exit values are returned:

0 Successful completion.

>0 An error occurred.

SEE ALSO

tabs(1), **ioctl**(2), **getwidth**(3I), **environ**(5), **ldterm**(7M), **termio**(7I), **termiox**(7I)