

NAME `stty` -- set mode of typewriter

SYNOPSIS `(file descriptor in r0)`

`sys stty; arg / stty = 31.`

...

arg: `dcrsr; dctsr; mode`

`stty(fildes, arg)`

`int arg[3];`

DESCRIPTION `stty` sets mode bits for a typewriter whose file descriptor is passed in `r0` (resp. is the first argument to the call). First, the system delays until the typewriter is quiescent. Then, the argument `dcrsr` (first word in `arg`) is placed into the typewriter's receiver control and status register, and `dctsr` (second word in `arg`) is placed in the transmitter control and status register. The DC-11 manual must be consulted for the format of these words. For the purpose of this call, the most important rôle of these arguments is to adjust to the speed of the typewriter. It is reasonable, however, to use the values of these words as they are supplied by `gty` if the mode argument only is to be changed.

The `mode` argument (third word in `arg`) contains several bits which determine the system's treatment of the typewriter:

- 200 even parity allowed on input (e. g. for M37s)
- 100 odd parity allowed on input
- 040 raw mode: wake up on all characters
- 020 map CR into LF; echo LF or CR as LF-CR
- 010 echo (full duplex)
- 004 map upper case to lower on input (e. g. M33)
- 002 echo and print tabs as spaces
- 001 inhibit all function delays (e. g. CRTs)

Characters with the wrong parity, as determined by bits 200 and 100, are ignored.

In raw mode, every character is passed back immediately to the program. No erase or kill processing is done; the end-of-file character (EOT), the interrupt character (DELETE) and the quit character (FS) are not treated specially.

Mode 020 causes input carriage returns to be turned into new-lines; input of either CR or LF causes LF-CR both to be echoed (used for GE TermiNet 300's and other terminals without the newline function).

Additional bits in the high order byte of the mode argument are used to indicate that the terminal is an IBM 2741 and to specify 2741 modes. These mode bits are:

- 400 terminal is an IBM 2741
- 1000 the 2741 has the transmit interrupt feature (currently ignored)
- 2000 use correspondence code conversion on output
- 4000 use correspondence code conversion on input (currently ignored)

Normal input and output code conversion for 2741s is EBCDIC (e. g. 963 ball and corresponding keyboard). The presence of the transmit interrupt feature permits the system to do read-ahead while no output is in progress. In 2741 mode, the low order bits 331 are ignored.

SEE ALSO `stty(I)`, `gty(II)`

DIAGNOSTICS The error bit (c-bit) is set if the file descriptor does not refer to a typewriter. From C, a negative value indicates an error.

BUGS This call should be used with care.