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[[commands:builtin:kill]]

The kill builtin command

Synopsis

```
kill [-s SIGNAL | -n SIGNALNUMBER | -SIGNAL] PID|JOB
```

```
kill -l|-L [SIGNAL...]
```

Description

The `kill` command is used to send signals to processes specified by their `PID` or their `JOB` -specification.

The signal(s) to be specified can have the following formats:

- Numerical: The signal is specified using its constant numeric value. Be aware that not all systems have identical numbers for the signals.
- Symbolic (long): The signal is specified using the same name that is used for the constant/macro in the C API () (`SIG<name>`)
- Symbolic (short): The signal is specified using the name from the C API () without the `SIG` -prefix (`<name>`)

Without any specified signal, the command sends the `SIGTERM` -signal.

The `kill` command is a Bash builtin command instead of relying on the external `kill` command of the operating system to

- be able to use shell job specifications instead of Unix process IDs
- be able to send signals ("kill something") also, when your process limit is reached

Options

Option	Description
`-s SIGNAL`	specifies the signal to send
`-n SIGNALNUMBER`	specifies the signal to send
`-SIGNAL`	specifies the signal to send

Option	Description
`-l` `[SIGNAL…]`	Lists supported/known signal numbers and their symbolic name. If `SIGNAL` is given, only list this signal, translated (if a number is given the symbolic name is printed, and vice versa)
`-L` `[SIGNAL…]`	Same as `-l [SIGNAL]` (compatiblity option)

Return status

Status	Reason
0	no error/success
!=0	invalid option
!=0	invalid signal specification
!=0	error returned by the system function (e.g. insufficient permissions to send to a specific process)

Examples

List supported signals

```
kill -l
```

Send KILL to a process ID

```
kill -9 12345
```

```
kill -KILL 12345
```

```
kill -SIGKILL 12345
```

Portability considerations

- POSIX(R) and ISO C only standardize symbolic signal names (no numbers) and a default action

See also

Discussion