

NAME

nohup — inoculate invocation against hang-ups

SYNOPSIS

nohup *program* [*argument*]...

DESCRIPTION

nohup protects an invocation of *program* against undue termination due to a dropped login session. It cannot protect against a more sophisticated job reaping system.

It does so by:

1. ignoring SIGHUP (see `signal(7)` for its circumstances and consequences),
2. if the standard input stream is a teletype, binding it to a write-only `/dev/null` stream, such that reads therefrom will hence fail with EBAADF,
3. if the standard output stream is a teletype, appending it to `nohup.out`, or, should that fail, `$HOME/nohup.out` (provided the `HOME` environment variable is set), creating the file as `u=rw` if necessary,
4. if the standard error stream is a teletype, binding it to the standard output stream, and finally
5. executing *program arguments*, searching for *program* in the `PATH`.

If any standard I/O stream was unopened, it will remain unopened. Failure to open `/dev/null` or both `nohup.outs` when required is a fatal error.

If any standard I/O stream is a teletype, a summary of redirexions and the location of the file are written to the standard error stream before being redirected.

ENVIRONMENT

`HOME` The fallback location for `nohup.out`.

`PATH` In which *program* is searched, confer `execvp(3)`.

EXIT STATUS

127 *program* wasn't found or an error was encountered during set-up.
126 *program* exists, but couldn't be executed for a different reason.
 All others returned by *program*.

SEE ALSO

`login(1)`, `execvp(3)`, `signal(7)`

STANDARDS

Conforms to IEEE Std 1003.1-2024 ("POSIX.1"); redirecting the standard input stream is an optional feature, and isn't widely implemented outside of the GNU system — prefer `< /dev/null` for portability.

Noting stream redirexions if the standard output stream is not a teletype is an extension, also present on the GNU system, which also exits **125** for set-up errors.

HISTORY

Appeared in Version 4 AT&T UNIX as

`nohup` – run a command immune to hangups
 executing *program* "with hangups, quits and interrupts all ignored".

Version 7 AT&T UNIX sees a merged manual page with `nice(1)`, and a shell implementation ignoring SIGHUP and SIGTERM, increasing niceness by **5**, and redirecting all output to `nohup.out` if the standard error stream is a teletype:

```
trap "" 1 15
if test -t 2>&1 ; then
    echo "Sending output to 'nohup.out'"
    exec nice -5 $* >>nohup.out 2>&1
else
    exec nice -5 $* 2>&1
```

fi

4.3BSD-Reno quotes IEEE Std 1003.2 ("POSIX.2") compatibility, but "appends" to `nohup.out` with a single **lseek**(*SEEK_END*), exits **1** on all errors, and also ignores SIGQUIT.

AT&T System III UNIX ignores SIGHUP and SIGQUIT, exits **2** on a setup error, and handles standard output and error streams as present-day. If executing *program* fails, the error is written to `/dev/tty`.

AT&T System V Release 1 UNIX exits **1** on setup errors and writes the actual `execvp(3)` error rather than always "not found".

Standards

X/Open Portability Guide Issue 2 ("XPG2") specifies AT&T System III UNIX verbatim.

X/Open Portability Guide Issue 4 ("XPG4") specifies only SIGHUP, noting that extant implementations variably also ignore either SIGQUIT or SIGTERM.

IEEE Std 1003.1-2008 ("POSIX.1") allows for the standard input stream to be redirected from an "unspecified file" if it's a teletype, following the GNU system.