

**NAME**

`watch` – execute a program periodically, showing output fullscreen

**SYNOPSIS**

`watch` [*options*] *command*

**DESCRIPTION**

`watch` runs *command* repeatedly, displaying its output and errors (the first screenfull). This allows you to watch the program output change over time. By default, *command* is run every 2 seconds and `watch` will run until interrupted.

**OPTIONS**

- b, --beep**  
Beep if command has a non-zero exit.
- c, --color**  
Interpret ANSI color and style sequences.
- C, --no-color**  
Do not interpret ANSI color and style sequences.
- d, --differences[=*permanent*]**  
Highlight the differences between successive updates. If the optional *permanent* argument is specified then `watch` will show all changes since the first iteration.
- e, --errexit**  
Freeze updates on command error, and exit after a key press.
- g, --chgexit**  
Exit when the visible output of *command* changes. Changes that are off the screen due to small screen size or large output will not cause `watch` to exit.
- n, --interval *seconds***  
Specify update interval. The command will not allow quicker than 0.1 second interval, in which the smaller values are converted. Both `.'` and `,'` work for any locales. The `WATCH_INTERVAL` environment can be used to persistently set a non-default interval (following the same rules and formatting).
- p, --precise**  
Make `watch` attempt to run *command* every `--interval seconds`. Try it with `ntptime` (if present) and notice how the fractional seconds stays (nearly) the same, as opposed to normal mode where they continuously increase.
- q, --equexit <*cycles*>**  
Exit when output of *command* does not change for the given number of cycles.
- r, --no-rerun**  
Do not run the program on terminal resize, the output of the program will re-appear at the next regular run time.
- t, --no-title**  
Turn off the header showing the interval, command, and current time at the top of the display, as well as the following blank line.
- w, --no-wrap**  
Turn off line wrapping. Long lines will be truncated instead of wrapped to the next line.
- x, --exec**  
Pass *command* to `exec(2)` instead of `sh -c` which reduces the need to use extra quoting to get the desired effect.
- h, --help**  
Display help text and exit.

**-v, --version**

Display version information and exit.

**EXIT STATUS**

<b>0</b>	Success.
<b>1</b>	Various failures.
<b>2</b>	Forking the process to watch failed.
<b>3</b>	Replacing child process stdout with write side pipe failed.
<b>4</b>	Command execution failed.
<b>5</b>	Closing child process write pipe failed.
<b>7</b>	IPC pipe creation failed.
<b>8</b>	Getting child process return value with <b>waitpid(2)</b> failed, or command exited up on error.
<b>other</b>	The watch will propagate command exit status as child exit status.

**ENVIRONMENT**

The behavior of **watch** is affected by the following environment variables.

**WATCH\_INTERVAL**

Update interval, follows the same rules as the **--interval** command line option.

**NOTES**

POSIX option processing is used (i.e., option processing stops at the first non-option argument). This means that flags after *command* don't get interpreted by **watch** itself.

**BUGS**

Upon terminal resize, the screen will not be correctly repainted until the next scheduled update. All **--differences** highlighting is lost on that update as well. When using the **--no-rerun** option, no output of will be visible.

Non-printing characters are stripped from program output. Use **cat -v** as part of the command pipeline if you want to see them.

Combining Characters that are supposed to display on the character at the last column on the screen may display one column early, or they may not display at all.

Combining Characters never count as different in **--differences** mode. Only the base character counts.

Blank lines directly after a line which ends in the last column do not display.

**--precise** mode doesn't yet have advanced temporal distortion technology to compensate for a *command* that takes more than **--interval seconds** to execute. **watch** also can get into a state where it rapid-fires as many executions of *command* as it can to catch up from a previous executions running longer than **--interval** (for example, **netstat(8)** taking ages on a DNS lookup).

**EXAMPLES**

To watch for mail, you might do

```
watch -n 60 from
```

To watch the contents of a directory change, you could use

```
watch -d ls -l
```

If you're only interested in files owned by user joe, you might use

```
watch -d 'ls -l | fgrep joe'
```

To see the effects of quoting, try these out

```
watch echo $$
```

```
watch echo '$$'
```

```
watch echo ""'$$$'""
```

To see the effect of precision time keeping, try adding **-p** to

```
watch -n 10 sleep 1
```

You can watch for your administrator to install the latest kernel with

```
watch uname -r
```

(Note that `-p` isn't guaranteed to work across reboots, especially in the face of **ntpd** (if present) or other bootup time-changing mechanisms)

## REPORTING BUGS

Please send bug reports to [procps@freelists.org](mailto:procps@freelists.org)