

**NAME**

**visudo** - edit the sudoers file

**SYNOPSIS**

**visudo** [-chqsV] [-f *sudoers*] [-x *output\_file*]

**DESCRIPTION**

**visudo** edits the *sudoers* file in a safe fashion, analogous to *vipw*(8). **visudo** locks the *sudoers* file against multiple simultaneous edits, provides basic sanity checks, and checks for parse errors. If the *sudoers* file is currently being edited you will receive a message to try again later.

There is a hard-coded list of one or more editors that **visudo** will use set at compile-time that may be overridden via the *editor sudoers* Default variable. This list defaults to *vi*. Normally, **visudo** does not honor the VISUAL or EDITOR environment variables unless they contain an editor in the aforementioned editors list. However, if **visudo** is configured with the *--with-env-editor* option or the *env\_editor* Default variable is set in *sudoers*, **visudo** will use any the editor defines by VISUAL or EDITOR. Note that this can be a security hole since it allows the user to execute any program they wish simply by setting VISUAL or EDITOR.

**visudo** parses the *sudoers* file after the edit and will not save the changes if there is a syntax error. Upon finding an error, **visudo** will print a message stating the line number(s) where the error occurred and the user will receive the "What now?" prompt. At this point the user may enter 'e' to re-edit the *sudoers* file, 'x' to exit without saving the changes, or 'Q' to quit and save changes. The 'Q' option should be used with extreme care because if **visudo** believes there to be a parse error, so will **sudo** and no one will be able to run **sudo** again until the error is fixed. If 'e' is typed to edit the *sudoers* file after a parse error has been detected, the cursor will be placed on the line where the error occurred (if the editor supports this feature).

The options are as follows:

**-c, --check** Enable *check-only* mode. The existing *sudoers* file will be checked for syntax errors, owner and mode. A message will be printed to the standard output describing the status of *sudoers* unless the **-q** option was specified. If the check completes successfully, **visudo** will exit with a value of 0. If an error is encountered, **visudo** will exit with a value of 1.

**-f *sudoers*, --file=*sudoers***

Specify an alternate *sudoers* file location. With this option, **visudo** will edit (or check) the *sudoers* file of your choice, instead of the default, */etc/sudoers*. The lock file used is the specified *sudoers* file with ".tmp" appended to it. In *check-only* mode only, the argument to **-f** may be '-', indicating that *sudoers* will be read from the standard input.

- h, --help**     Display a short help message to the standard output and exit.
- q, --quiet**    Enable *quiet* mode. In this mode details about syntax errors are not printed. This option is only useful when combined with the **-c** option.
- s, --strict**    Enable *strict* checking of the *sudoers* file. If an alias is used before it is defined, **visudo** will consider this a parse error. Note that it is not possible to differentiate between an alias and a host name or user name that consists solely of uppercase letters, digits, and the underscore ('\_') character.
- V, --version**    Print the **visudo** and *sudoers* grammar versions and exit.
- x output\_file, --export=output\_file**  
Export a *sudoers* in JSON format and write it to *output\_file*. If *output\_file* is '-', the exported *sudoers* policy will be written to the standard output. By default, */etc/sudoers* (and any files it includes) will be exported. The **-f** option can be used to specify a different *sudoers* file to export. The exported format is intended to be easier for third-party applications to parse than the traditional *sudoers* format. The various values have explicit types which removes much of the ambiguity of the *sudoers* format.

### Debugging and sudoers plugin arguments

**visudo** versions 1.8.4 and higher support a flexible debugging framework that is configured via Debug lines in the *sudo.conf(5)* file.

Starting with **sudo** 1.8.12, **visudo** will also parse the arguments to the *sudoers* plugin to override the default *sudoers* path name, UID, GID and file mode. These arguments, if present, should be listed after the path to the plugin (i.e. after *sudoers.so*). Multiple arguments may be specified, separated by white space. For example:

```
Plugin sudoers_policy sudoers.so sudoers_mode=0400
```

The following arguments are supported:

```
sudoers_file=pathname
```

The *sudoers\_file* argument can be used to override the default path to the *sudoers* file.

```
sudoers_uid=uid
```

The *sudoers\_uid* argument can be used to override the default owner of the *sudoers* file. It should be specified as a numeric user ID.

`sudoers_gid=gid`

The *sudoers\_gid* argument can be used to override the default group of the sudoers file. It must be specified as a numeric group ID (not a group name).

`sudoers_mode=mode`

The *sudoers\_mode* argument can be used to override the default file mode for the sudoers file. It should be specified as an octal value.

For more information on configuring `sudo.conf(5)`, please refer to its manual.

## ENVIRONMENT

The following environment variables may be consulted depending on the value of the *editor* and *env\_editor sudoers* settings:

**VISUAL**           Invoked by **visudo** as the editor to use

**EDITOR**           Used by **visudo** if **VISUAL** is not set

## FILES

*/etc/sudo.conf*           Sudo front end configuration

*/etc/sudoers*           List of who can run what

*/etc/sudoers.tmp*       Lock file for visudo

## DIAGNOSTICS

In addition to reporting *sudoers* parse errors, **visudo** may produce the following messages:

sudoers file busy, try again later.

Someone else is currently editing the *sudoers* file.

*/etc/sudoers.tmp*: Permission denied

You didn't run **visudo** as root.

you do not exist in the passwd database

Your user ID does not appear in the system passwd database.

{User,Runas,Host,Cmnd}\_Alias referenced but not defined

Either you are trying to use an undeclared {User,Runas,Host,Cmnd}\_Alias or you have a user or host name listed that consists solely of uppercase letters, digits, and the underscore ('\_') character.

In the latter case, you can ignore the warnings (**sudo** will not complain). The message is prefixed with the path name of the *sudoers* file and the line number where the undefined alias was used. In **-s** (strict) mode these are errors, not warnings.

#### unused {User,Runas,Host,Cmnd}\_Alias

The specified {User,Runas,Host,Cmnd}\_Alias was defined but never used. The message is prefixed with the path name of the *sudoers* file and the line number where the unused alias was defined. You may wish to comment out or remove the unused alias.

#### cycle in {User,Runas,Host,Cmnd}\_Alias

The specified {User,Runas,Host,Cmnd}\_Alias includes a reference to itself, either directly or through an alias it includes. The message is prefixed with the path name of the *sudoers* file and the line number where the cycle was detected. This is only a warning unless **visudo** is run in **-s** (strict) mode as **sudo** will ignore cycles when parsing the *sudoers* file.

#### unknown defaults entry "name"

The *sudoers* file contains a Defaults variable not recognized by **visudo**.

#### /etc/sudoers: input and output files must be different

The **-x** flag was used and the specified *output\_file* has the same path name as the *sudoers* file to export.

## SEE ALSO

vi(1), sudo.conf(5), sudoers(5), sudo(8), vipw(8)

## AUTHORS

Many people have worked on **sudo** over the years; this version consists of code written primarily by:

Todd C. Miller

See the CONTRIBUTORS file in the **sudo** distribution (<https://www.sudo.ws/contributors.html>) for an exhaustive list of people who have contributed to **sudo**.

## CAVEATS

There is no easy way to prevent a user from gaining a root shell if the editor used by **visudo** allows shell escapes.

## BUGS

If you feel you have found a bug in **visudo**, please submit a bug report at <https://bugzilla.sudo.ws/>

**SUPPORT**

Limited free support is available via the sudo-users mailing list, see <https://www.sudo.ws/mailman/listinfo/sudo-users> to subscribe or search the archives.

**DISCLAIMER**

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