NAME

visudo - edit the sudoers file

SYNOPSIS

visudo [**-chIOPqsV**] [[**-f**] *sudoers*]

DESCRIPTION

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

visudo parses the *sudoers* file after editing 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 caution because if **visudo** believes there to be a syntax error, so will **sudo**. If 'e' is typed to edit the *sudoers* file after a syntax error has been detected, the cursor will be placed on the line where the error occurred (if the editor supports this feature).

There are two *sudoers* settings that determine which editor **visudo** will run.

editor   A colon (':') separated list of editors allowed to be used with **visudo**. **visudo** will choose the editor that matches the user's SUDO_EDITOR, VISUAL, or EDITOR environment variable if possible, or the first editor in the list that exists and is executable. **sudo** does not preserve the SUDO_EDITOR, VISUAL, or EDITOR environment variables unless they are present in the *env_keep* list or the *env_reset* option is disabled in the *sudoers* file. The default editor path is *vi* which can be set at compile time via the --with-editor configure option.

env_editor

If set, **visudo** will use the value of the SUDO_EDITOR, VISUAL, or EDITOR environment variables before falling back on the default editor list. **visudo** is typically run as root so this option may allow a user with **visudo** privileges to run arbitrary commands as root without logging. An alternative is to place a colon-separated list of "safe" editors in the *editor* variable. **visudo** will then only use SUDO_EDITOR, VISUAL, or EDITOR if they match a value specified in *editor*. If the *env_reset* flag is enabled, the SUDO_EDITOR, VISUAL, and/or EDITOR environment variables must be present in the *env_keep* list for the *env_editor* flag to function when **visudo** is invoked via **sudo**. The default value is *on*, which can be set at compile time via the --with-env-editor configure option.

The options are as follows:

-c, **--check**

>Enable *check-only* mode. The existing *sudoers* file (and any other files it includes) will be checked for syntax errors. If the path to the *sudoers* file was not specified, **visudo** will also check the file ownership and permissions (see the **-O** and **-P** options). 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, see below. As of version 1.8.27, the *sudoers* path can be specified without using the **-f** option.

-h, **--help**

>Display a short help message to the standard output and exit.

-I, **--no-includes**

>Disable the editing of include files unless there is a pre-existing syntax error. By default, **visudo** will edit the main *sudoers* file and any files included via @*include* or #*include* directives. Files included via @*includedir* or #*includedir* are never edited unless they contain a syntax error.

-O, **--owner**

>Enforce the default ownership (user and group) of the *sudoers* file. In edit mode, the owner of the edited file will be set to the default. In check mode (**-c**), an error will be reported if the owner is incorrect. This option is enabled by default if the *sudoers* file was not specified.

-P, **--perms**

>Enforce the default permissions (mode) of the *sudoers* file. In edit mode, the permissions of the edited file will be set to the default. In check mode (**-c**), an error will be reported if the file permissions are incorrect. This option is enabled by default if the *sudoers* file was not specified.

-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 referenced but not actually defined or if

there is a cycle in an alias, **visudo** will consider this a syntax error. 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.

A *sudoers* file may be specified instead of the default, */etc/sudoers*. The temporary file used is the specified *sudoers* file with ".tmp" appended to it. In *check-only* mode only, '-' may be used to indicate that *sudoers* will be read from the standard input. Because the policy is evaluated in its entirety, it is not sufficient to check an individual *sudoers* include file for syntax errors.

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, user-ID, group-ID, 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=user-ID
>   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=group-ID
>   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), refer to its manual.

ENVIRONMENT

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

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

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

EDITOR   Used by **visudo** if neither SUDO_EDITOR nor VISUAL is set

FILES

/etc/sudo.conf   Sudo front-end configuration

/etc/sudoers   List of who can run what

/etc/sudoers.tmp   Default temporary file used by visudo

DIAGNOSTICS

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

sudoers file busy, try again later.
    Someone else is currently editing the *sudoers* file.

/etc/sudoers: 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.

Warning: {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.

Warning: 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.

Warning: 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.

ignoring editor backup file
    While processing a @*includedir* or #*includedir*, a file was found with a name that ends in '~' or *.bak*. Such files are skipped by **sudo** and **visudo**.

ignoring file name containing '.'
    While processing a @*includedir* or #*includedir*, a file was found with a name that contains a '.' character. Such files are skipped by **sudo** and **visudo**.

unknown defaults entry "name"
    The *sudoers* file contains a *Defaults* setting not recognized by **visudo**.

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.md file in the **sudo** distribution (https://www.sudo.ws/about/contributors/) 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 believe you have found a bug in **visudo**, you can 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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