

## 83 - SUDO - root Programme unter user laufen

```
# sudoers file.
#
# This file MUST be edited with the 'visudo' command as root.
#
# See the man page for the details on how to write a sudoers file.
#

# This line will allow john to run the 2 commands without having to
# enter his own password.
john      pc-02=NOPASSWD:/usr/bin/reboot,/sbin/halt

# This line will allow marty to run the command /usr/bin/reboot
# without indentifiying himself but will need to identify himself
# to be allowed to run /sbin/halt.
marty     pc-02=NOPASSWD:/usr/bin/reboot,PASSWD:/sbin/halt

#-----
```

### 'Runas' Specifications

A Runas\_Spec is simply the name of the user of which the present user will take identity to run a command. If you do not specify a Runas\_Spec in the user specification(enclosed in parenteses) ,a default Runas\_Spec of **root** will be used.

A Runas\_Spec sets the default for commands that follow it.

What this means is that for the entry:

```
charlie    pc-02 = NOPASSWD:(john)/bin/ls,/bin/kill,/usr/bin/who
debby     pc-02 = (hans)/bin/ls,(root)/bin/kill,/usr/bin/lprm
```

The user **charlie** may run /bin/ls, /bin/kill, and /usr/bin/lprm but only personified as 'john' without having to enter charlie's password with thew command

```
sudo -u john /bin/ls
```

The user **debby** can run the command /bin/ls as hans and /bin/kill and /usr/bin/lprm as root. Runas\_Spec can be a real username or an alias (User\_Alias)

### Aliases

```
# Host alias specification
Host_Alias THIS_HOST=dozlinux

# User alias specification
User_Alias HELPERS=john,mary,hans,peter

# Cmnd alias specification
Cmnd_Alias SHUTDOWN=/sbin/halt,/sbin/shutdown,/sbin/reboot
Cmnd_Alias MODPROBE=/sbin/modprobe
Cmnd_Alias INTERNET=/usr/bin/killall,/sbin/isdnctrl

# User privilege specification
root      ALL=(ALL) ALL
HELPERS   THIS_HOST=NOPASSWD:SHUTDOWN
pierre    THIS_HOST=NOPASSWD:MODPROBE,NOPASSWD:SHUTDOWN
proxy     THIS_HOST=NOPASSWD:INTERNET
wwwrun    THIS_HOST=NOPASSWD:INTERNET
```

**NOPASSWD and PASSWD**

By default, sudo requires that a user authenticate him or herself before running a command. This behavior can be modified via the `NOPASSWD` tag. Like a `Runas_Spec`, the `NOPASSWD` tag sets a default for the commands that follow it in the `Cmnd_Spec_List`. Conversely, the `PASSWD` tag can be used to reverse things. For example:

```
ray    rushmore=NOPASSWD:/bin/kill,/bin/ls,/usr/bin/lprm
```

would allow the user `ray` to run `/bin/kill`, `/bin/ls`, and `/usr/bin/lprm` as root on the machine `rushmore` as root without authenticating himself. If we only want `ray` to be able to run `/bin/kill` without a password the entry would be:

```
ray    rushmore=NOPASSWD:/bin/kill,PASSWD:/bin/ls,/usr/bin/lprm
```

**Other special characters and reserved words:**

The pound sign (`#`) is used to indicate a comment (unless it occurs in the context of a user name and is followed by one or more digits, in which case it is treated as a uid).

Both the comment character and any text after it, up to the end of the line, are ignored.

The reserved word `ALL` is a built in alias that always causes a match to succeed. It can be used wherever one might otherwise use a `Cmnd_Alias`, `User_Alias`, `Runas_Alias`, or `Host_Alias`. You should not try to define your own alias called `ALL` as the built in alias will be used in preference to your own. Please note that using `ALL` can be dangerous since in a command context, it allows the user to run any command on the system.

An exclamation point (`!`) can be used as a logical not operator both in an alias and in front of a `Cmnd`. This allows one to exclude certain values. Note, however, that using a `!` in conjunction with the built in `ALL` alias to allow a user to run "all but a few" commands rarely works as intended (see SECURITY NOTES below).

Long lines can be continued with a backslash (`\`) as the last character on the line.

Whitespace between elements in a list as well as special syntactic characters in a User Specification (`'='`, `':'`, `'('`, `')`) is optional.

**Wildcards** (aka meta characters):

**sudo** allows shell-style wildcards to be used in pathnames as well as command line arguments in the sudoers file.

Wildcard matching is done via the POSIX `fnmatch(3)` routine. Note that these are not regular expressions.

- \* Matches any set of zero or more characters.
- ? Matches any single character.
- [...] Matches any character in the specified range.
- [!...] Matches any character not in the specified range.
- \x For any character "x", evaluates to "x".  
This is used to escape special characters such as: "\*", "?", "[", and "}".

Note that a forward slash ('/') will not be matched by wildcards used in the pathname. When matching the command line arguments, however, as slash does get matched by wildcards. This is to make a path like:

```
/usr/bin/*
```

match **/usr/bin/who** but not **/usr/bin/X11/xterm**.

### **Exceptions to wildcard rules:**

The following exceptions apply to the above rules:

- " " If the empty string " " is the only command line argument in the sudoers entry it means that command is not allowed to be run with any arguments.