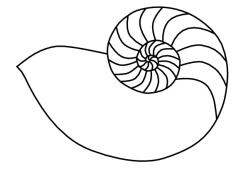# *UNIX Command* RTFM: sudo(8)

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What does *sudo do*?...

- **Like *su*: run as *s*ubstitute *u*ser**
- **But *do*: typically, run a specific command**
- **Safer than *su*:**
  - Don't need to share root/admin passwords (authentication via invoking user's password)
  - Can only do what's been specifically granted (*role-based access control*) in ***sudoers*** file
  - Logs failures *and* successful commands

What *sudo* doesn't do...

- Doesn't allow what hasn't been granted
- Doesn't override file/directory permission
- Doesn't affect your current shell/environment:
  - Can't do this: sudo cd /private/dir
- Doesn't make non-executables executable
- Doesn't turn your system into Ubuntu!

sudo(8) Man Page

- **NAME**
  - sudo, sudoedit – execute a command as another user
- **SYNOPSIS**
  - **sudo -l**[**l**] [**-g** *groupname*|*#gid*] [**-U** *username*] [**-u** *username*|*#uid*] [*command*]
  - **sudo** [**-g** *groupname*|*#gid*] [**-u** *username*|*#uid*] [*VAR=value*] [**-i** | **-s**] [*command*]
  - **sudoedit** [**-g** *groupname*|*#gid*] [**-u** *username*|*#uid*] *file* ...

sudo(8) Man Page (cont.)

- **OPTIONS**
  - **-l[l]** list allowed (and forbidden) commands for invoking user (or user specified by **-U**) on current host
    - Double up the "**l**" for longer format output
  - **-g** sets primary group to *groupname* or *gid*
  - **-u** runs as user specified by *username* or u*id* (instead of **root**)
  - **-i** simulates initial login:
    - Uses shell from passwd(5)
    - Reads .profile/.login, etc.
    - Initializes environment, leaving **DISPLAY** and **TERM** unchanged, setting (only) **HOME**, **SHELL**, **USER**, **LOGNAME**, and **PATH**
  - **-s** runs shell specified by **SHELL**

sudo(8) Examples

- Interactive shell:
  - □ **sudo –i** *or* **sudo –s**
- Specific command:
  - □ **sudo cat /etc/shadow**
- Edit a file:
  - □ **sudo vi /etc/shadow**
  - □ **sudoedit /etc/shadow**

sudoers(5) Examples:

```
# User privilege specification:
# User_List   Host_List = (Runas_List) Tag_Spec Cmnd

root           ALL=(ALL) ALL

# Members of admin group may gain root privileges:
%admin         ALL=(ALL) ALL
```

sudoers(5) Examples:

Cmnd_Alias   CGIHELPER = /usr/local/sbin/cgihelper

Normally, require a tty, to not show password in clear…
... but override for specific commands run by CGI scripts...
Defaults!CGIHELPER   !requiretty

Allows owner of particular CGI scripts to run
"helper" command as other users...
webuser   ALL=(ALL) NOPASSWD: CGIHELPER

sudoers(5) Examples:

# Allow non-root user to mount a backup drive (/etc/fstab):
LABEL=backup /mnt/backup ext3 rw,noauto,noatime,user 1 0

Allow same user to fsck the drive (/etc/sudoers):
backuser ALL=(root) NOPASSWD: /sbin/fsck LABEL\=backup
backuser ALL=(root) NOPASSWD: /sbin/fsck -f LABEL\=backup
Also allow RAID admin on drive:
backuser ALL=(root) /usr/bin/drobom

Questions?