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# UNIX & LINUX

## How do I remove a user from a group?

Asked 11 years, 10 months ago Modified 4 months ago Viewed 976k times



Which command should I use to remove a user from a group in Debian?

499

When adding a user to a group, it can be done with:



```
usermod -a -G group user
```



However, I could not find a similar command (accepting a group and user as arguments) for removing the user from the group. The closest I could get is:



```
usermod -G all,existing,groups,except,for,group user
```

Is there a command like `usermod OPTION group user` with `OPTION` an option to make `usermod` (or a similar program) remove the user from group?

[users](#) [group](#)

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edited Jan 20, 2012 at 16:44

user13742

asked Jan 20, 2012 at 16:29



Lekensteyn

20.5k

18


74

111

- 3 For Fedora users who end up here, man usermod reveals in -G option comments that a listing all current groups wish to be retained IS the way to delete a group. No -R option with Fedora; you must use Lekensteyn's approach he is trying to avoid. – [Stephen](#) Mar 25, 2016 at 20:54

usermode -r USER -G GROUP works in debian . – [alireza](#) 13 hours ago

## 13 Answers

Sorted by: Highest score (default) 



You can use `gpasswd` :

**606**

# `gpasswd --delete user group`



The new group config will be assigned at the next login. If the user is logged in, the effects of the command aren't seen immediately.



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edited May 10, 2021 at 14:56

answered Jan 20, 2012 at 16:40

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[tshepang](#)

[user13742](#)

**65k** 87 224 290



- 20 Perfect thanks! `gpasswd -a user group` for adding the user to the group seems also nicer, especially if a typo has made and the `-a` option gets dropped. – [Lekensteyn](#) Jan 20, 2012 at 16:43

- 2 Doesn't work for me. I get two messages: a) Removing user from group. b) `gpasswd: user is not a member of group`. Afterwards running "members group" shows no change. – [geoidesic](#) Dec 15, 2014 at 7:19 

- 2 @geoidesic you need to log out and login again to see the effect – [Wasif Hossain](#) Jul 3, 2016 at 11:09

- 1 Is there a way to make the change take effect without having to re-login? – [Andy Fusniak](#) Aug 11, 2016 at 15:49

- 3 @geoidesic I got these errors on Centos 7. I found you got this, if you were trying to remove the user from their default group. Try switching the default group with `usermod -g user user` then try to remove them. – [PanPipes](#) Jan 25, 2018 at 10:55



On Debian, the `adduser` package contains a `deluser` program which removes a user from a group if you pass both as arguments:

**237**

```
deluser user group
```



If your distribution doesn't have `adduser`, you can edit `/etc/group` and `/etc/gshadow` manually.



```
vigr
vigr -s
```

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answered Jan 20, 2012 at 16:44



Gilles 'SO- stop being evil'

**818k** 195 1695  
2188

13 I did not know of programs like `vigr` and `vipw`. Very useful in case the manpages are too far away :) – [Lekensteyn](#) Jan 20, 2012 at 16:47

4 Alternatively, after modifying `/etc/group` run `grpconv` to update `/etc/gshadow` rather than editing it. – [Cyrille](#) Oct 20, 2014 at 12:57

`sudo deluser jenkins admin /usr/sbin/deluser`: You may not remove the user from their primary group. – [Jonathan](#) Oct 20, 2014 at 17:16

@JonathanLeaders Every user needs to be in at least one group. Use `usermod` or `vipw` to change the user's primary group. This question was about supplementary groups. – [Gilles 'SO- stop being evil'](#) Oct 21, 2014 at 16:44

Nice. There's also the simpler `adduser $user $group` command instead of the `usermod -x -y -z -...` – [ygoe](#) Dec 11, 2014 at 12:35



```
usermod -G "" username
```

**95**

removes all secondary/supplementary groups from `username`, leaving them as a member of only their primary group. this worked in Solaris 5.9



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answered May 4, 2013 at 23:56



[user208145](#)

**2,475** 2 21 21

6 Tested in CentOS 6.4; works. – [aggregate1166877](#) Apr 3, 2014 at 12:13

1 Works in Ubuntu 12.04, too. – [aggregate1166877](#) Apr 3, 2014 at 12:22

And this seems to be the best way to force the secondary groups to *any* list of groups, excluding all unlisted groups. – [sage](#) Aug 12, 2016 at 17:53

2 Tested and working in CentOS 7. Thanks! – [Tricky](#) Aug 8, 2018 at 3:54

3 Note the question asked to remove the user from "a group" not all groups. – [miken32](#) Feb 16 at 18:56



This is the “old school” approach...

21

Most \*nix systems maintain group information into a plain text file [/etc/group](#) , where



- each line contains the fields

- group\_name

- password

- GID, and

- user\_list

delimited by the `:` character.

- the user\_list field is a list of user names, separated by commas.

Now suppose you want to remove a user named `thisuser` from a group named `thatgroup` . Start by backing up `/etc/group` , then use the editor of your preference *with su privileges* to edit the file `/etc/group` and remove the `thisuser` reference from the `thatgroup` line entry, e.g.,

original line is something like this:

```
thatgroup:x:1274:someuser,thisuser,anotheruser
```

after editing should be left like this:

```
thatgroup:x:1274:someuser,anotheruser
```

As with all the other answers, this will not affect the user's current session(s), if any (i.e., if the user is currently logged in). The change will take effect the next time the user logs in.

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edited Jul 23, 2015 at 0:04



G-Man Says 'Reinstate  
Monica'

22.4k 27 70 117

answered Dec 10, 2014 at 10:59



p57  
211 2 3

- 3 `vigr` was already mentioned for editing `/etc/group` manually. My manual pages says that user names are separated by commas, not by colons. Rebooting is not necessary, you just need to re-login (or use `newgrp`). – [Lekensteyn](#) Dec 10, 2014 at 16:24

To assist any non-Debian users hitting these shores looking for clues... this may be enough for Debian as per the scope of OP's question, but if you were using this for a \*BSD OS, you would need to modify the plaintext file here as mentioned, then issue a `pwd_mkdb -p /etc/master.passwd` to actually put that list into use. – [danno](#) Jul 19, 2018 at 17:43



You can use the below command on SUSE distributions (and, apparently, *no others*).

1

```
usermod -R group user_name
```



where `group` is the group that you want to remove the user from and `user_name` the user that you want to remove from the group. For example,



```
usermod -R root imnottheroot
```

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edited Jul 23, 2015 at 0:14



[G-Man Says 'Reinstate Monica'](#)

22.4k 27 70 117

answered Oct 17, 2013 at 8:58



[Stavros Fan Koutsouropoulos](#)

27 1

- 2 What package provides your `usermod` binary? I'm asking to find out the version, as mine from `shadow-utils-4.1.4.3` does not provide the `-R` option. – [myroslav](#) Oct 17, 2013 at 10:42
- 4 My `shadow 4.1.5.1-5` package (Arch Linux) does have an `-R` option, but that means something else. It's not Linux I guess. – [Lekensteyn](#) Oct 17, 2013 at 14:51
- 4 I'm not sure this will work. The manpage is saying that `-R` is: "`-R, --root CHROOT_DIR` Apply changes in the `CHROOT_DIR` directory and use the configuration files from the `CHROOT_DIR` directory." – [MikeKusold](#) Jul 8, 2014 at 23:34
- 3 The only things sort of related I could find was [this](#) oracle manpage, but that's still not about the same thing, so this answer should maybe be removed. – [remmy](#) Oct 5, 2014 at 22:03
- 1 `sudo usermod -R admin jenkins` `usermod: invalid chroot path 'admin'` – [Jonathan](#) Oct 20, 2014 at 17:18



Suppose that **username=student** and **groupname=research**, therefore to remove student user from research group it's need to do following:

**1**

```
gpasswd -d student research
```



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edited Apr 11, 2018 at 9:36

answered Apr 11, 2018 at 8:11



Follow



Yuriy Goncharuk

4,207 2 19 36



ravi

43 1

3 Why to repeat something, that was here 6 years earlier? It's marked as accepted answer! – [Betlista](#) May 3, 2019 at 0:13



You can remove users from the group by executing usermod command without -a option. Example, by executing

**1**

```
usermod -G group1 username
```



will add the user to the group1, and will remove it from any other groups where it is.

Remember, you can keep users in various groups by listing the group's names, separated with a comma.



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edited May 10, 2021 at 15:08

answered Nov 21, 2018 at 17:56



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tshepang

65k 87 224 290



Helper

27 1

2 This information has been presented multiple times already. – [Scott - Слава Україні](#) Nov 21, 2018 at 18:11

1 NOTE: it's a opposite which made username only in this group1 – [yurenchen](#) Nov 8, 2022 at 23:47





The command to add a group to a user:

**1**

```
usermod -aG group user
```



The command to remove a group from a user is:



```
usermod -rG group user
```



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edited Aug 3 at 10:53



AdminBee

22.4k 21 49 73

answered Aug 1 at 13:12



José Geraldo

11 1



On OpenBSD

**0**

```
usermod -S "" user
```



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answered Aug 10, 2021 at 20:28



Volodymyr Boiko

101 1



```
pw groupmod "groupname|gid" -d "username|uid"
```

**-1**

A solution if you are using CSH, for whatever reason.



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edited Jan 15, 2014 at 9:12

answered Jan 15, 2014 at 9:06



james

1 1

**-1**

Consider:

- username: abc2
- group name: newgroup11
- Task: Removing user abc2 from group newgroup11



```
[root@home1 ~]# groups abc2
abc2 : abc2
[root@home1 ~]# usermod -G newgroup11 abc2
[root@home1 ~]# groups abc2
abc2 : abc2 newgroup11
[root@home1 ~]# usermod -G newgroup11 abc2
[root@home1 ~]# usermod -G abc2 abc2
[root@home1 ~]# groups abc2
abc2 : abc2
```

**\*\* Kindly correct me if I am wrong. \*\***

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edited Jul 21, 2015 at 16:00

answered Jan 17, 2015 at 21:19



G-Man Says 'Reinstate  
Monica'

22.4k 27 70 117



new user

7 1

- 4 This "works", but only because you have a single secondary group. `usermod -G newgroup11 abc2` will put you in the secondary group `newgroup11`. Since the primary group is `abc2`, you will end up in both groups. `usermod -g abc2 abc2` results in `newgroup11` being removed from the secondary groups *because* it is not mentioned anymore. So for three or more different groups, this method won't work. See the other answers involving `gpasswd` for a better command. – [Lekensteyn](#) Jan 17, 2015 at 22:56





To continue using usermod in a distro (like Fedora) which does not have a remove option, where user=bob and group=deletethisgroup, command would be:

**-1**



```
usermod -G `cat /etc/group | grep bob | grep -v deletethisgroup | cut -d ':' -f 1
| tr '\n' ',' | sed 's/,,$//'\` bob
```



The pipes (1) get all group entries user belongs to, (2) take out the one which needs to be removed, (3) returns first column (group name), replaces newline with comma, and removes trailing comma.

Of course, you could put all that in a bash script which takes user and group to be deleted as parameters. `awk` could be used to shorten the end but I wanted to stick to `grep`, `cut`, `tr` and `sed`.

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answered Mar 25, 2016 at 21:02



Stephen

99 1

---

According to this [man page](#), `gpasswd -d bob deletethisgroup` is available too. Any reason why you are not using it? – [Lekensteyn](#) Mar 27, 2016 at 0:08

---

Not everyone wants to set up group passwords. I was just offering a solution using the command that was referenced by the question on a particular distro. in Fedora/RHEL/Centos with `gpasswd -d` the removed user can still join the group if he has access to the password. It actually increases group access as opposed to disallowing it. – [Stephen](#) Mar 27, 2016 at 4:11

---

I understood that the utility is named `gpasswd` because it is closely related to `/etc/passwd`, but instead manages groups. Unlike the plain `passwd` command which just controls passwords, `gpasswd` can also be used to manage membership of a group. A group password is not required if you are root or a group administrator. – [Lekensteyn](#) Mar 27, 2016 at 15:46

---

Did you read the `gpasswd` manual? For Fedora/RHEL/CentOS, if you read the manual, it is stated that the command "is used to administer `/etc/group`, and `/etc/gshadow`". It actually has no effect on `/etc/passwd`. Manual also states "Group passwords are an inherent security problem since more than one person is permitted to know the password." It does not actually manage membership of a group, it opens the group up to ANY user with the password. A group password is not required if you are already a MEMBER of the group. – [Stephen](#) Mar 28, 2016 at 2:19

---

Closely related was in the sense of similar naming and purposes, I did not imply that the `/etc/passwd` file is actually managed by `gpasswd`. Note that "man page" in my first comment points to the `gpasswd` manual page for Fedora 13. Using `gpasswd $group` you can set the group password which causes the security issue you mentioned. However you can also *not* have a password and use `gpasswd -d $user $group` to delete a user as described in the first comment and accepted answer. Note that this command does not prompt for a group password nor does it modify or require it. – [Lekensteyn](#) Mar 28, 2016 at 20:42

---



To remove a user from a group `gpasswd` is the best utility for this IMO.

**-1**

Command Example:



```
sudo gpasswd -d group user
```



**\* Help Info \***



Usage: `gpasswd [option] GROUP`

Options:

<code>-a, --add USER</code>	add USER to GROUP
<code>-d, --delete USER</code>	remove USER from GROUP
<code>-h, --help</code>	display this help message and exit
<code>-Q, --root CHROOT_DIR</code>	directory to chroot into
<code>-r, --delete-password</code>	remove the GROUP's password
<code>-R, --restrict</code>	restrict access to GROUP to its members
<code>-M, --members USER,...</code>	set the list of members of GROUP
<code>-A, --administrators ADMIN,...</code>	set the list of administrators for GROUP

Except for the `-A` and `-M` options, the options cannot be combined.

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edited Jan 19, 2018 at 20:04

answered Jan 19, 2018 at 19:40

Follow



[peterh](#)

9,691 16 61 90



[Brian Cotton](#)

11 1

1 The group and user arguments are swapped. Also, this is exactly what the accepted answer proposed, this post is not really helpful? – [Lekensteyn](#) Jan 19, 2018 at 23:29

Please change to: `sudo gpasswd -d user group` – [Bastion](#) Jul 30, 2021 at 3:46