



## ***Rocky Enterprise Linux 9.2 Manual Pages on command 'useradd.8'***

**C:\>man useradd.8**

USERADD(8)                    System Management Commands                    USERADD(8)

### NAME

useradd - create a new user or update default new user information

### SYNOPSIS

useradd [options] LOGIN

useradd -D

useradd -D [options]

### DESCRIPTION

useradd is a low level utility for adding users. On Debian, administrators should usually use adduser(8) instead.

When invoked without the -D option, the useradd command creates a new user account using the values specified on the command line plus the default values from the system. Depending on command line options, the useradd command will update system files and may also create the new user's home directory and copy initial files.

By default, a group will also be created for the new user (see -g, -N, -U, and USERGROUPS\_ENAB).

### OPTIONS

The options which apply to the useradd command are:

--badname

Allow names that do not conform to standards.

-b, --base-dir BASE\_DIR

The default base directory for the system if -d HOME\_DIR is not specified.

BASE\_DIR is concatenated with the account name to define the home directory. If the -m option is not used, BASE\_DIR must exist.

If this option is not specified, useradd will use the base directory specified by the HOME variable in /etc/default/useradd, or /home by default.

-c, --comment COMMENT

Any text string. It is generally a short description of the login, and is currently used as the field for the user's full name.

-d, --home-dir HOME\_DIR

The new user will be created using HOME\_DIR as the value for the user's login directory. The default is to append the LOGIN name to BASE\_DIR and use that as the login directory name. The directory HOME\_DIR does not have to exist but will not be created if it is missing.

-D, --defaults

See below, the subsection "Changing the default values".

-e, --expiredate EXPIRE\_DATE

The date on which the user account will be disabled. The date is specified in the format YYYY-MM-DD.

If not specified, useradd will use the default expiry date specified by the EXPIRE variable in /etc/default/useradd, or an empty string (no expiry) by default.

-f, --inactive INACTIVE

The number of days after a password expires until the account is permanently disabled. A value of 0 disables the account as soon as the password has expired, and a value of -1 disables the feature.

If not specified, useradd will use the default inactivity period specified by the INACTIVE variable in /etc/default/useradd, or -1 by default.

-g, --gid GROUP

The group name or number of the user's initial login group. The group name must exist. A group number must refer to an already existing group.

If not specified, the behavior of useradd will depend on the USERGROUPS\_ENAB variable in /etc/login.defs. If this variable is set to yes (or -U/--user-group is specified on the command line), a group will be created for the user, with the same name as her loginname. If the variable is set to no (or

-N/--no-user-group is specified on the command line), useradd will set the primary group of the new user to the value specified by the GROUP variable in /etc/default/useradd, or 100 by default.

-G, --groups GROUP1[,GROUP2,...[,GROUPN]]]

A list of supplementary groups which the user is also a member of. Each group is separated from the next by a comma, with no intervening whitespace. The groups are subject to the same restrictions as the group given with the -g option. The default is for the user to belong only to the initial group.

-h, --help

Display help message and exit.

-k, --skel SKEL\_DIR

The skeleton directory, which contains files and directories to be copied in the user's home directory, when the home directory is created by useradd.

This option is only valid if the -m (or --create-home) option is specified.

If this option is not set, the skeleton directory is defined by the SKEL variable in /etc/default/useradd or, by default, /etc/skel.

If possible, the ACLs and extended attributes are copied.

-K, --key KEY=VALUE

Overrides /etc/login.defs defaults (UID\_MIN, UID\_MAX, UMASK, PASS\_MAX\_DAYS and others).

Example: -K PASS\_MAX\_DAYS=-1 can be used when creating system account to turn off password aging, even though system account has no password at all. Multiple

-K options can be specified, e.g.: -K UID\_MIN=100 -K UID\_MAX=499

-l, --no-log-init

Do not add the user to the lastlog and faillog databases.

By default, the user's entries in the lastlog and faillog databases are reset to avoid reusing the entry from a previously deleted user.

For the compatibility with previous Debian's useradd, the -O option is also supported.

-m, --create-home

Create the user's home directory if it does not exist. The files and directories contained in the skeleton directory (which can be defined with the

-k option) will be copied to the home directory.

By default, if this option is not specified and CREATE\_HOME is not enabled, no home directories are created.

**-M, --no-create-home**

Do not create the user's home directory, even if the system wide setting from /etc/login.defs (CREATE\_HOME) is set to yes.

**-N, --no-user-group**

Do not create a group with the same name as the user, but add the user to the group specified by the -g option or by the GROUP variable in /etc/default/useradd.

The default behavior (if the -g, -N, and -U options are not specified) is defined by the USERGROUPS\_ENAB variable in /etc/login.defs.

**-o, --non-unique**

Allow the creation of a user account with a duplicate (non-unique) UID.

This option is only valid in combination with the -u option.

**-p, --password PASSWORD**

The encrypted password, as returned by crypt(3). The default is to disable the password.

Note: This option is not recommended because the password (or encrypted password) will be visible by users listing the processes.

You should make sure the password respects the system's password policy.

**-r, --system**

Create a system account.

System users will be created with no aging information in /etc/shadow, and their numeric identifiers are chosen in the SYS\_UID\_MIN-SYS\_UID\_MAX range, defined in /etc/login.defs, instead of UID\_MIN-UID\_MAX (and their GID counterparts for the creation of groups).

Note that useradd will not create a home directory for such a user, regardless of the default setting in /etc/login.defs (CREATE\_HOME). You have to specify the -m options if you want a home directory for a system account to be created.

**-R, --root CHROOT\_DIR**

Apply changes in the CHROOT\_DIR directory and use the configuration files from the CHROOT\_DIR directory.

**-P, --prefix PREFIX\_DIR**

Apply changes in the PREFIX\_DIR directory and use the configuration files from the PREFIX\_DIR directory. This option does not chroot and is intended for preparing a cross-compilation target. Some limitations: NIS and LDAP users/groups are not verified. PAM authentication is using the host files. No SELINUX support.

**-s, --shell SHELL**

The name of the user's login shell. The default is to leave this field blank, which causes the system to select the default login shell specified by the SHELL variable in /etc/default/useradd, or an empty string by default.

**-u, --uid UID**

The numerical value of the user's ID. This value must be unique, unless the -o option is used. The value must be non-negative. The default is to use the smallest ID value greater than or equal to UID\_MIN and greater than every other user.

See also the -r option and the UID\_MAX description.

**-U, --user-group**

Create a group with the same name as the user, and add the user to this group.

The default behavior (if the -g, -N, and -U options are not specified) is defined by the USERGROUPS\_ENAB variable in /etc/login.defs.

**-Z, --selinux-user SEUSER**

The SELinux user for the user's login. The default is to leave this field blank, which causes the system to select the default SELinux user.

#### Changing the default values

When invoked with only the -D option, useradd will display the current default values. When invoked with -D plus other options, useradd will update the default values for the specified options. Valid default-changing options are:

**-b, --base-dir BASE\_DIR**

The path prefix for a new user's home directory. The user's name will be affixed to the end of BASE\_DIR to form the new user's home directory name, if the -d option is not used when creating a new account.

This option sets the HOME variable in /etc/default/useradd.

**-e, --expiredate EXPIRE\_DATE**

The date on which the user account is disabled.

This option sets the EXPIRE variable in /etc/default/useradd.

**-f, --inactive INACTIVE**

The number of days after a password has expired before the account will be disabled.

This option sets the INACTIVE variable in /etc/default/useradd.

**-g, --gid GROUP**

The group name or ID for a new user's initial group (when the

**-N/--no-user-group** is used or when the USERGROUPS\_ENAB variable is set to no in /etc/login.defs). The named group must exist, and a numerical group ID must have an existing entry.

This option sets the GROUP variable in /etc/default/useradd.

**-s, --shell SHELL**

The name of a new user's login shell.

This option sets the SHELL variable in /etc/default/useradd.

## NOTES

The system administrator is responsible for placing the default user files in the /etc/skel/ directory (or any other skeleton directory specified in /etc/default/useradd or on the command line).

## CAVEATS

You may not add a user to a NIS or LDAP group. This must be performed on the corresponding server.

Similarly, if the username already exists in an external user database such as NIS or LDAP, useradd will deny the user account creation request.

It is usually recommended to only use usernames that begin with a lower case letter or an underscore, followed by lower case letters, digits, underscores, or dashes.

They can end with a dollar sign. In regular expression terms: `[a-z_][a-z0-9_-]*[$]?`

On Debian, the only constraints are that usernames must neither start with a dash ('-') nor plus ('+') nor tilde ('~') nor contain a colon (':'), a comma (','), or a whitespace (space: ' ', end of line: '\n', tabulation: '\t', etc.). Note that using a slash ('/') may break the default algorithm for the definition of the user's home directory.

On Ubuntu, the same constraints as Debian are in place, with the additional constraint that the username cannot be fully numeric. This includes octal and

hexadecimal syntax.

Username may only be up to 32 characters long.

## CONFIGURATION

The following configuration variables in `/etc/login.defs` change the behavior of this tool:

### CREATE\_HOME (boolean)

Indicate if a home directory should be created by default for new users.

This setting does not apply to system users, and can be overridden on the command line.

### GID\_MAX (number), GID\_MIN (number)

Range of group IDs used for the creation of regular groups by `useradd`, `groupadd`, or `newusers`.

The default value for `GID_MIN` (resp. `GID_MAX`) is 1000 (resp. 60000).

### HOME\_MODE (number)

The mode for new home directories. If not specified, the `UMASK` is used to create the mode.

`useradd` and `newusers` use this to set the mode of the home directory they create.

### LASTLOG\_UID\_MAX (number)

Highest user ID number for which the lastlog entries should be updated. As higher user IDs are usually tracked by remote user identity and authentication services there is no need to create a huge sparse lastlog file for them.

No `LASTLOG_UID_MAX` option present in the configuration means that there is no user ID limit for writing lastlog entries.

### MAIL\_DIR (string)

The mail spool directory. This is needed to manipulate the mailbox when its corresponding user account is modified or deleted. If not specified, a compile-time default is used.

### MAIL\_FILE (string)

Defines the location of the users mail spool files relatively to their home directory.

The `MAIL_DIR` and `MAIL_FILE` variables are used by `useradd`, `usermod`, and `userdel` to create, move, or delete the user's mail spool.

#### MAX\_MEMBERS\_PER\_GROUP (number)

Maximum members per group entry. When the maximum is reached, a new group entry (line) is started in `/etc/group` (with the same name, same password, and same GID).

The default value is 0, meaning that there are no limits in the number of members in a group.

This feature (split group) permits to limit the length of lines in the group file. This is useful to make sure that lines for NIS groups are not larger than 1024 characters.

If you need to enforce such limit, you can use 25.

Note: split groups may not be supported by all tools (even in the Shadow toolsuite). You should not use this variable unless you really need it.

#### PASS\_MAX\_DAYS (number)

The maximum number of days a password may be used. If the password is older than this, a password change will be forced. If not specified, -1 will be assumed (which disables the restriction).

#### PASS\_MIN\_DAYS (number)

The minimum number of days allowed between password changes. Any password changes attempted sooner than this will be rejected. If not specified, -1 will be assumed (which disables the restriction).

#### PASS\_WARN\_AGE (number)

The number of days warning given before a password expires. A zero means warning is given only upon the day of expiration, a negative value means no warning is given. If not specified, no warning will be provided.

#### SUB\_GID\_MIN (number), SUB\_GID\_MAX (number), SUB\_GID\_COUNT (number)

If `/etc/subuid` exists, the commands `useradd` and `newusers` (unless the user already have subordinate group IDs) allocate `SUB_GID_COUNT` unused group IDs from the range `SUB_GID_MIN` to `SUB_GID_MAX` for each new user.

The default values for `SUB_GID_MIN`, `SUB_GID_MAX`, `SUB_GID_COUNT` are respectively 100000, 600100000 and 65536.

#### SUB\_UID\_MIN (number), SUB\_UID\_MAX (number), SUB\_UID\_COUNT (number)

If `/etc/subuid` exists, the commands `useradd` and `newusers` (unless the user already have subordinate user IDs) allocate `SUB_UID_COUNT` unused user IDs from

the range SUB\_UID\_MIN to SUB\_UID\_MAX for each new user.

The default values for SUB\_UID\_MIN, SUB\_UID\_MAX, SUB\_UID\_COUNT are respectively 100000, 600100000 and 65536.

SYS\_GID\_MAX (number), SYS\_GID\_MIN (number)

Range of group IDs used for the creation of system groups by useradd, groupadd, or newusers.

The default value for SYS\_GID\_MIN (resp. SYS\_GID\_MAX) is 101 (resp. GID\_MIN-1).

SYS\_UID\_MAX (number), SYS\_UID\_MIN (number)

Range of user IDs used for the creation of system users by useradd or newusers.

The default value for SYS\_UID\_MIN (resp. SYS\_UID\_MAX) is 101 (resp. UID\_MIN-1).

UID\_MAX (number), UID\_MIN (number)

Range of user IDs used for the creation of regular users by useradd or newusers.

The default value for UID\_MIN (resp. UID\_MAX) is 1000 (resp. 60000).

UMASK (number)

The file mode creation mask is initialized to this value. If not specified, the mask will be initialized to 022.

useradd and newusers use this mask to set the mode of the home directory they create if HOME\_MODE is not set.

It is also used by pam\_umask as the default umask value.

USERGROUPS\_ENAB (boolean)

If set to yes, userdel will remove the user's group if it contains no more members, and useradd will create by default a group with the name of the user.

## FILES

/etc/passwd

User account information.

/etc/shadow

Secure user account information.

/etc/group

Group account information.

/etc/gshadow

Secure group account information.

/etc/default/useradd

Default values for account creation.

/etc/skel/

Directory containing default files.

/etc/subgid

Per user subordinate group IDs.

/etc/subuid

Per user subordinate user IDs.

/etc/login.defs

Shadow password suite configuration.

## EXIT VALUES

The useradd command exits with the following values:

0

success

1

can't update password file

2

invalid command syntax

3

invalid argument to option

4

UID already in use (and no -o)

6

specified group doesn't exist

9

username already in use

10

can't update group file

12

can't create home directory

14

can't update SELinux user mapping

SEE ALSO

chfn(1), chsh(1), passwd(1), crypt(3), groupadd(8), groupdel(8), groupmod(8),

login.defs(5), newusers(8), subgid(5), subuid(5), userdel(8), usermod(8).

shadow-utils 4.8.1

11/29/2022

USERADD(8)