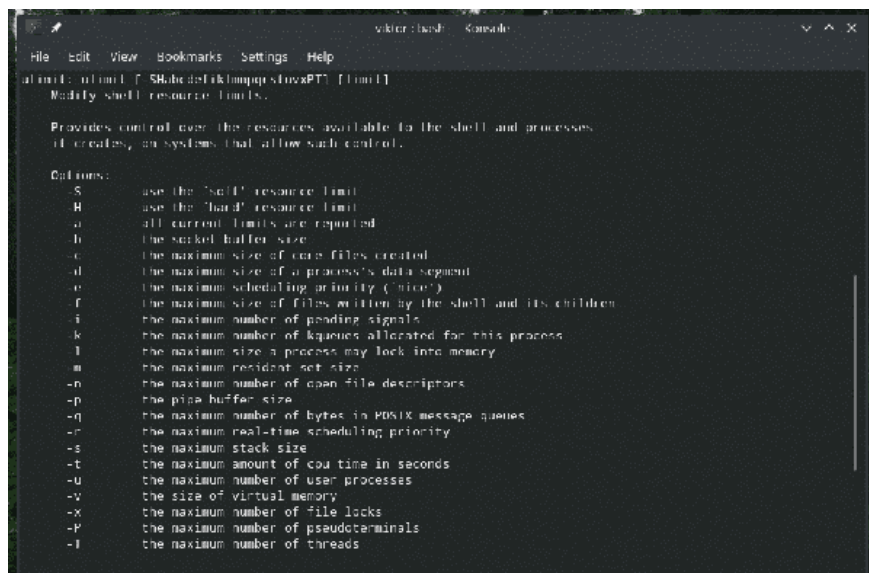


How to find ulimit for users on Linux

How can you find the ulimit value for a user account or a process on a Linux system?

To work properly, we must ensure that the correct ulimit values are set after installing different software. Linux systems provide means to limit the amount of resources used. Each Linux user account has its own set of limits. The limit system is applied individually to each user's process. For example, if a certain threshold is too low, the system cannot host websites using Nginx / Apache or PHP / Python applications. Restrict system resources viewed or set by the ulimit command. Let's find out how to use ulimit to provide control over the resources available to shells and processes.



The ulimit values on Linux

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Linux ulimit command sets or displays user process resource limits. Typically, the limits are found in /etc/security/limits.conf or systemd.

Two types of limits

All Linux limits are divided into two categories:

1. **Soft limit** : All users can change the soft limit, up to the hard limit. Change to -S for ulimit.
2. **Hard limit** : Only root users are allowed to change hard limits. Change to -H for ulimit.

See the ulimit for Linux user accounts

Enter the following command to view all soft and hard limits for the current user:

```
ulimit -Sa ## Show soft limit ## ulimit -Ha ## Show hard limit ##  
core file size (blocks, -c) unlimited data seg size (kbytes, -d) unlimited sched
```

List all hard ulimit for user named 'tom'

You must run the following command as root user or at least have access to that account via sudo / su:

```
su - tom -c "ulimit -Ha" su - tom --shell /bin/bash -c "ulimit -Ha" ## You can u
```

Find all soft ulimit for user named 'jerry'

Do the above again:

```
su - jerry -c "ulimit -Sa" su - jerry --shell /bin/sh -c "ulimit -Sa" ## You can
```

Search for 'ulimit-a' for process user

A Linux process is the running version of a program. For example, when you start the Firefox application, you created a process. However, some processes have been running in the background for quite some time. Normally, with background running, you cannot use the sudo or su command to find their limits. Here, nginx is running as www-data user on Debian Linux, but the shell is blocked from accessing the www-data user account by default for security reasons. In other words, the following su / sudo command will fail 100%.

```
$ su - www-data -c "ulimit -Sa" This account is currently not available.
```

How to find ulimit for a process

Recipe:

```
cat /proc/PID/limits
```

First find the PID (process ID) for nginx, run ps with grep:

```
ps aux | grep nginx
```

Example results:

```
root 8868 0.0 0.0 127044 24048 ? Ss May23 0:00 nginx: master process /usr/sbin/n
```

Now type the cat command:

```
cat /proc/8868/limits
```

Example results:

```
Limit Soft Limit Hard Limit Units Max cpu time unlimited unlimited seconds Max f
```

Most programmers and sysadmin need to know the maximum number of processes and open files per nginx process. In a nutshell, we find the PID using 'ps aux | grep appname ', then look for the 'limits' files of that PID in /proc/. Then you will know for sure which values ??to apply to adjust performance.

You finished reading the article "**How to find ulimit for users on Linux**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.