

# UUID Information

---

## Be aware of UUID

UUID stands for Universally Unique Identifier of a partition. This ID is used in few different places to identify the partition. Most commonly this would be `/etc/fstab`.

## UUID vs PARTUUID

- **UUID** is a *filesystem-level* UUID, which is retrieved from the filesystem metadata inside the partition. It can only be read if the filesystem type is known and readable.
- **PARTUUID** is a *partition-table-level* UUID for the partition, a standard feature for all partitions on GPT-partitioned disks.

UUIDs are not hardware-specific but stored in the partition's filesystem. That means cloning a disk or partition with `dd` will result in the same UUID. However recreating the partitions manually on the new disk (e.g. smaller disk), will result in new UUID. This could result in problems when booting the new disk uses UUID in `fstab`.

```
cat /etc/fstab
# /etc/fstab: static file system information.
# <file system> <mount point> <type> <options> <dump> <pass>
# / was on /dev/sda3 during installation
UUID=b2fa29ee-670f-4d44-becc-d9ec368d4a41 / ext4
noatime,nodiratime,errors=remount-ro 0 1
```

This can be solved by either changing the entries in `fstab` to the old style: `/dev/dbX`, Or by getting the new UUID and update `fstab` accordingly. Or update the UUID of the partition manually with the methods below.

## Check current UUID of the filesystem

To find of the current UUID of the filesystem you can use either of the below commands.

```
# blkid /dev/sda3
/dev/sda3: UUID="1fa3df4b-0f8b-47f0-b72b-2790bf42d581" TYPE="ext4"
PARTLABEL="Linux swap" PARTUUID="27215f75-2130-4398-891d-ba56be2990ba"

# blkid -p /dev/sda3
/dev/sda3: UUID="1fa3df4b-0f8b-47f0-b72b-2790bf42d581" VERSION="1.0"
TYPE="ext4" USAGE="filesystem" PART_ENTRY_SCHEME="gpt"
PART_ENTRY_NAME="Linux swap" PART_ENTRY_UUID="27215f75-2130-4398-891d-
ba56be2990ba" PART_ENTRY_TYPE="0657fd6d-a4ab-43c4-84e5-0933c84b4f4f"
```

```
PART_ENTRY_NUMBER="3" PART_ENTRY_OFFSET="40112128"  
PART_ENTRY_SIZE="70629376" PART_ENTRY_DISK="8:0"
```

```
# dumpe2fs /dev/sda3 | grep UUID  
dumpe2fs 1.44.5 (15-Dec-2018)  
Filesystem UUID:          1fa3df4b-0f8b-47f0-b72b-2790bf42d581
```

## Change UUID of Filesystems

To do this, we are going to use tune2fs. The partition has to be unmounted prior apply the new UUID:

```
# umount /dev/sdb1  
  
# tune2fs -U 94ddf54e-53f7-4a1a-bd2f-d0a01ee448d1 /dev/sdb1  
# tune2fs -U random /dev/sdb1 // for random generated UUID
```

## Change PARTUUID in partition table

You can change the PARTUUID of a partition with gdisk. I'd recommend to read man gdisk first. In the following example I show how I changed the PARTUUID of the second partition on my first drive (sda):

```
$ sudo gdisk /dev/sda  
[sudo] password for mook:  
GPT fdisk (gdisk) version 1.0.5  
  
Partition table scan:  
  MBR: protective  
  BSD: not present  
  APM: not present  
  GPT: present  
  
Found valid GPT with protective MBR; using GPT.  
  
Command (? for help): x # enter x to  
change to experts menu  
  
Expert command (? for help): c # enter c to  
change PARTUUID  
Partition number (1-2): 2 # enter the  
number of the partition you want to change  
Enter the partition's new unique GUID ('R' to randomize): r  
New GUID is 76349364-D66C-4C19-B422-237A0D2DB9F5  
  
Expert command (? for help): m # enter m to  
go back to main menu  
  
Command (? for help): w # enter w to
```

```
write the change to disk
```

```
Command (? for help): q
```

```
# enter q to
```

```
exit gdisk
```

```
$
```

From:

<https://wiki.oscardegroot.nl/> - HomeWiki

Permanent link:

<https://wiki.oscardegroot.nl/doku.php?id=linux:backup-clone:uuid&rev=1665297355>

Last update: **2022/10/09 06:35**

