What is the difference between /etc/fstab and /etc/mtab?

Asked 6 years, 11 months ago   Modified 4 years, 4 months ago   Viewed 92k times

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Both `/etc/mtab` and `/etc/fstab` contain data about mounted volumes, for example:

/etc/mtab

```
/dev/xvda1 / ext4 rw,discard 0 0
proc /proc proc rw,noexec,nosuid,nodev 0 0
...
```

/etc/fstab

```
LABEL=cloudimg-rootfs   /    ext4   defaults,discard   0 0
/dev/xvdf /home/ubuntu/logs ext4 rw 0 0
```

What is the difference between the files?

`mount`   `fstab`

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edited Apr 6, 2016 at 4:45
🔷 **muru**
   189k   52   460   712

asked Apr 5, 2016 at 14:42
👤 **Adam Matan**
   12.1k   23   70   90

2 Answers

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`/etc/fstab` is a list of filesystems to be mounted at boot time. If you want your Windows or file-storage partitions mounted once your computer boots, you'll need to put appropriate entries into `/etc/fstab`.

`/etc/mtab` is a list of *currently* mounted filesystems. If you have a disk connected but not mounted, it won't show up in the `/etc/mtab` file. Once you mount it, it will show up there.

Note also, that with systemd (to which Ubuntu switched beginning from 15.04 release) it is possible to declare filesystems that need to be mounted at boot via `*.mount` files. See James Oguya's tutorial on the topic.

For more info, read <u>mount</u> <u>manual</u>.

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Also note that on modern systems `/etc/mtab` is normally not written to disk anymore. Instead, it is a symbolic link pointing to `/proc/self/mounts`, which is a virtual file whose contents are generated by the kernel. – Bachsau Jul 7, 2021 at 10:12

TL;DR

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- `/etc/fstab` is a created by the user. It contains list of volumes to be mounted by `mount`.

- `/etc/mtab` is a created by the system. It contains a list of currently mounted devices.

- The format of the files is similar. After mounting a new device, copy the relevant line from `/etc/mtab` to `/etc/fstab` so that it will be auto-mounted after boot or when calling `mount -a`.

Quotes from the `mount` manual

The `/etc/fstab`, `/etc/mtab` and `/proc/mounts` files

> The file `/etc/fstab`, may contain lines describing what devices are usually mounted where, using which options.

> The programs `mount` and `umount` maintain a list of currently mounted filesystems in the file `/etc/mtab`.

> When the proc filesystem is mounted (say at `/proc`), the files `/etc/mtab` and `/proc/mounts` have very similar contents. The former has somewhat more information, such as the mount options used, but is not necessarily up-to-date.

`mount -a`

> mount -a [-t type] [-O optlist]

> (usually given in a bootscript) causes all filesystems mentioned in fstab (of the proper type and/or having or not having the proper options) to be mounted as indicated, except for those whose line contains the noauto keyword. Adding the -F option will make mount fork, so that the filesystems are mounted simultaneously.

Share Improve this answer Follow   edited Jun 12, 2020 at 14:37   answered Apr 5, 2016 at 14:42

Community Bot
1

Adam Matan
12.1k   23   70   90

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1   What if a device shows up as mounted in /etc/fstab but not under /etc/mtab? What is going on then?
    – JohnyTex Nov 25, 2020 at 15:02

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2   @JohnyTex it means that the user intended to mount it, but it did not happen for some reason: it might
    be invalid, or that `mount` was not executed. –   Adam Matan   Nov 25, 2020 at 19:11

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1   In my particular case I can access the partition even though it is not visible in /etc/mtab -any idea how
    that is possible? – JohnyTex Nov 26, 2020 at 9:04