Bash script doesn't wait until commands have been properly executed

Ask Question

I am working on a very simple script but for some reason parts of it seem to run asynchronously.

```
singlePartDevice() {
# http://www.linuxquestions.org/questions/linux-software-2/removing-all-partition-from-disk-690256/
# http://serverfault.com/questions/257356/mdadm-on-ubuntu-10-04-raid5-of-4-disks-one-disk-missing-after-reboot
# Create single partition
parted -s "$1" mklabel msdos
# Find size of disk
v_disk=$(parted -s "$1" print|awk '/^Disk/ {print $3}'|sed 's/[Mm][Bb]//')
parted -s "$1" mkpart primary ext3 4096 ${v_disk}
parted -s "$1" set 1 raid on
return 0
}

singlePartDevice "/dev/sdc"
singlePartDevice "/dev/sdd"

#/dev/sdc1 exists but /dev/sdd1 does not exist
sleep 5s
#/dev/sdc1 exists AND /dev/sdd1 does also exist
```

As you see before the call of sleep the script has only partially finished its job. How do I make my script to wait until parted has done its job sucessfully?

linux bash shell udev

edited Nov 5 '11 at 21:20

jilles

7,053 2 16 31

asked Nov 5 '11 at 16:14

Philip

76 2 9

2 Answers

(I am assuming that you are working on Linux due to the links in your question)

I am not very familiar with `parted`, but I believe that the partition device nodes are not created directly by it - they are created by `udev`, which is by nature an asynchronous procedure:

- `parted` creates a partition
- the kernel updates its internal state
- the kernel notifies the `udev` daemon (`udevd`)
- `udevd` checks its rule files (usually under `/etc/udev/`) and creates the appropriate device nodes

This procedure allows for clear separation of the device node handling policy from the kernel, which is a Good Thing (TM). Unfortunately, it also introduces relatively unpredictable delays.

A possible way to handle this is to have your script wait for the device nodes to appear:

```
while [ ! -e "/dev/sdd1" ]; do sleep 1
```

answered Nov 5 '11 at 17:48

thkala
61.3k 16 124 171

Assuming all you want to do is ensure that the partitions are created before proceeding, there are a couple of different approaches

1. Check whether process parted has completed before moving to the next step
2. Check if the devices are ready before moving to the next step (you will need to check the syntax). Eg until [-f /dev/sdc && -f /dev/sdd] sleep 5

answered Nov 5 '11 at 17:41

bubbly

3,594 2 18 29