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Create

```
mdadm --create /dev/md0 --level=5 --raid-devices=3 /dev/sda1 /dev/sdb1  
/dev/sdc1 --spare-devices=1 /dev/sdd1
```

Status

```
watch -n 1 'cat /proc/mdstat'  
mdadm --detail /dev/md0  
mdadm -E /dev/sdb2
```

Manage

```
mdadm --manage /dev/md1 --fail /dev/sdb2  
mdadm --manage /dev/md1 --remove /dev/sdb2  
mdadm --manage /dev/md1 --add /dev/sdb2  
  
mdadm --grow /dev/md0 --raid-devices=4 // add drive  
mdadm --grow /dev/md0 --size=max // change drive size
```

Test

```
mdadm --manage --set-faulty /dev/md1 /dev/sdc2
```

Scrubbing

```
echo "check" > /sys/block/md0/md/sync_action  
echo "repair" > /sys/block/md0/md/sync_action  
cat /sys/block/md0/md/mismatch_cnt
```

/etc/mdadm/mdadm.conf

```
MAILADDR mail@example.com,root@localhost  
PROGRAM /root/script.sh
```

```
mdadm --detail --scan >>/etc/mdadm/mdadm.conf
update-initramfs -u
```

/etc/default/smartmontools

```
start_smartd=yes
```

RAID-5 Parity

On last disk by default

Reconstruct partition on new device

```
sfdisk -d /dev/sda > sda_partition.txt
sfdisk --force /dev/sdb < sda_partition.txt
```

Speed up resync

```
iostat -m
echo 20000 > /proc/sys/dev/raid/speed_limit_min
echo 90000 > /proc/sys/dev/raid/speed_limit_max
```

20000K/sec

Set SCT ERC

```
smartctl -l scterc,70,70 /dev/sda
```

From:
<https://wiki.janforman.com/> - wiki.janforman.com

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Last update: **2021/06/10 11:29**

